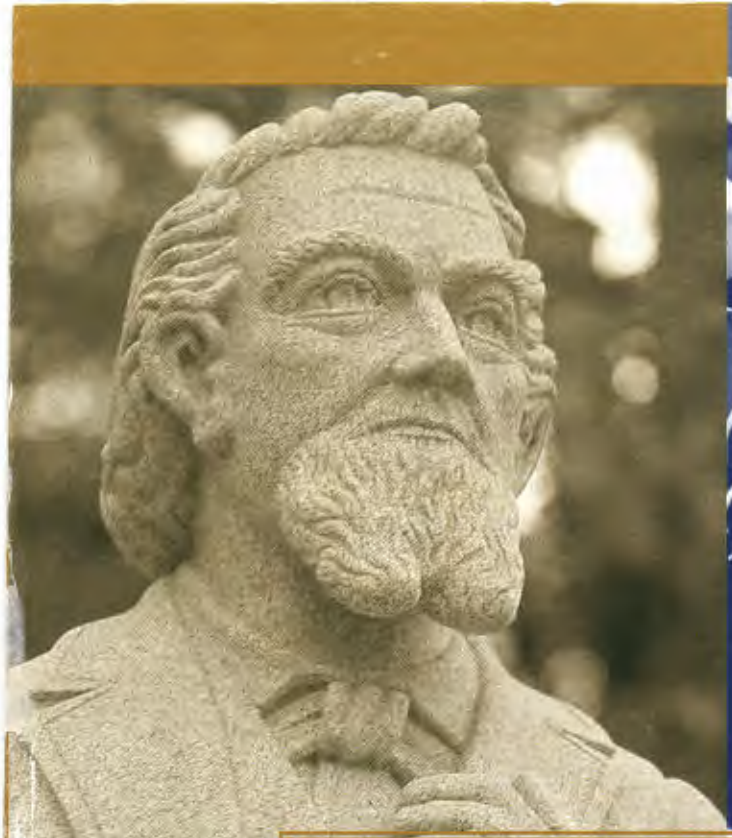
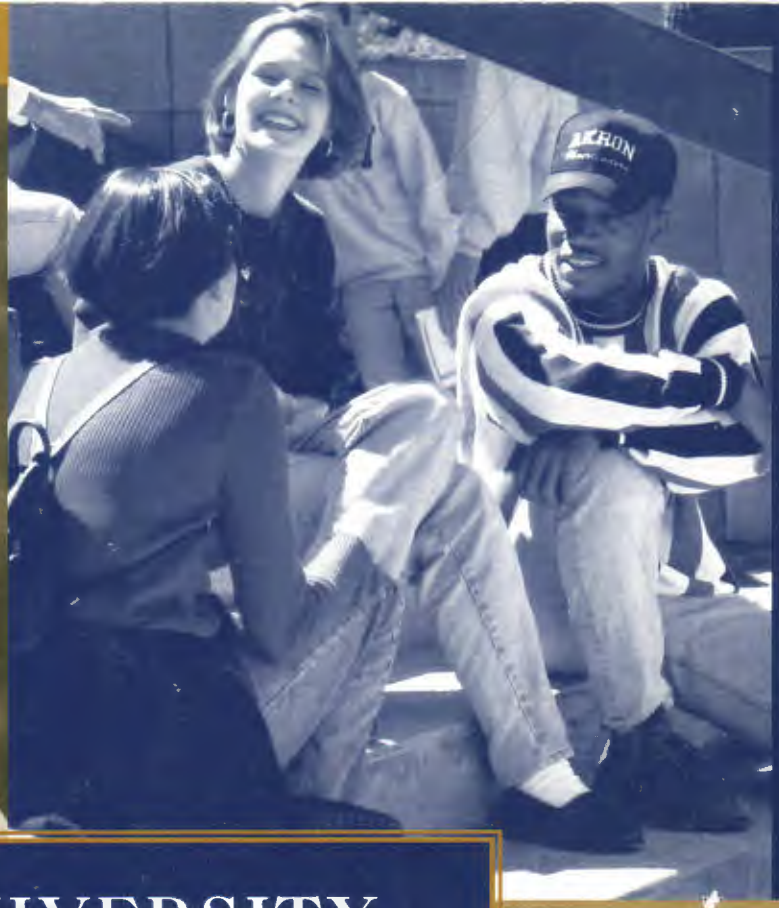
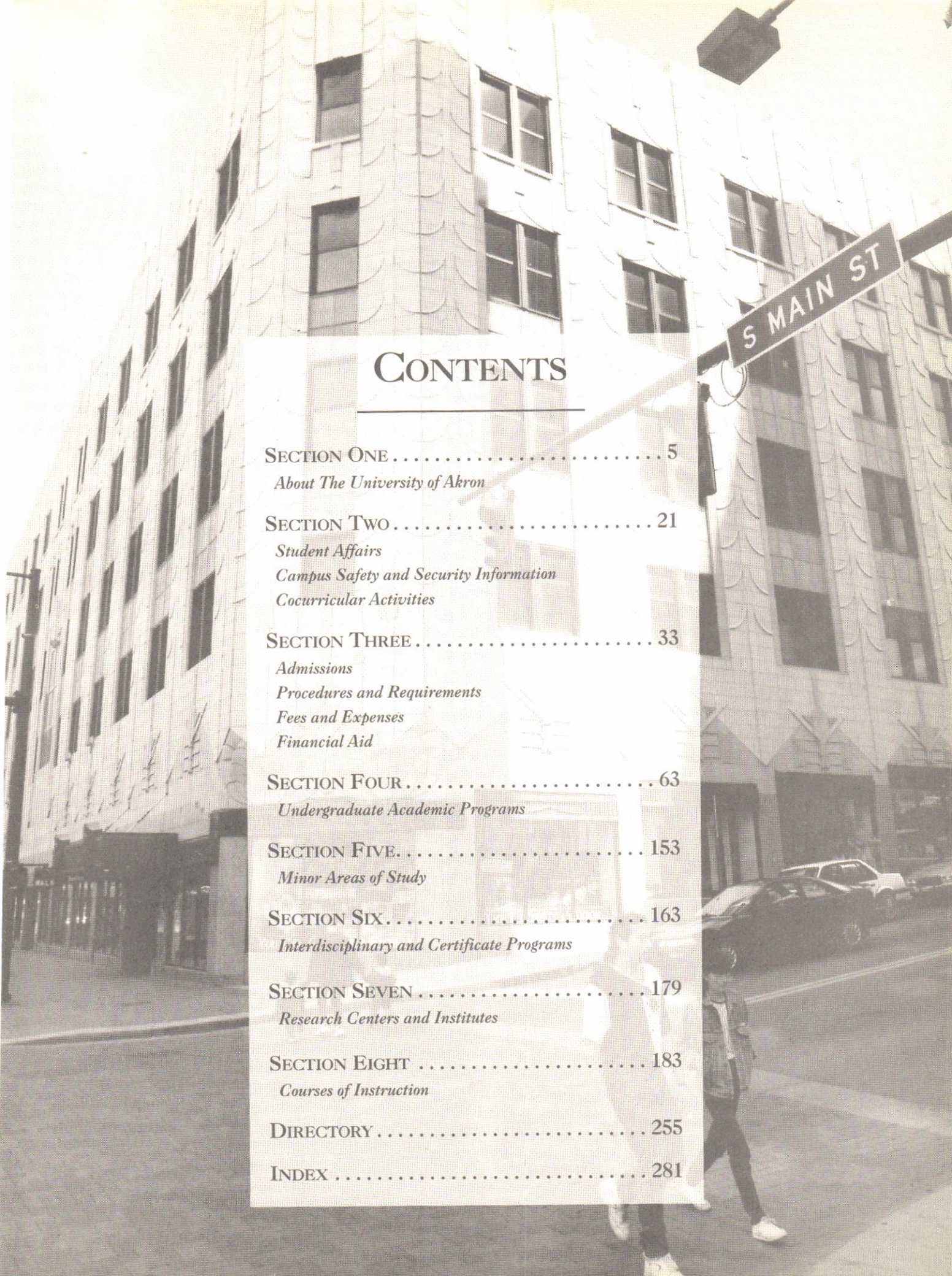




THE UNIVERSITY of AKRON

'98 Undergraduate '99 Bulletin

You can apply online at: www.uakron.edu/admissions/Start.html



Contents

Calendar 1998-99

Fall Semester 1998

Day and Evening Classes Begin	Monday, Aug. 31
*Labor Day(Day and Evening)	Monday, Sept. 7
Veterans Day (Classes held; staff holiday)	Weds., Nov. 11
**Thanksgiving Break	Thurs.–Sat., Nov. 26-28
Classes Resume	Mon., Nov. 30
Final Instructional Day	Sat., Dec. 12
Final Examination Period	Mon.–Sat., Dec. 14-19
Commencement	Sat., Dec. 19
Spring Intersession	Sat.-Sat., Jan. 2–16, 1999

Spring Semester 1999

*Martin Luther King Day	Mon., Jan. 18
Day and Evening Classes Begin	Tues., Jan. 19
*Presidents' Day	Tues., Feb. 16
Spring Break	Mon.–Sat., March 22-27
***May Day	Fri., May 7
Final Instructional Day	Sat., May 8
Final Examination Period	Mon.–Sat., May 10-15
Commencement	Sat., May 15
Summer Intersession	Mon.–Fri., May 17–June 11
Commencement for Law School	Sun., May 23

Summer Session I 1999

First 5- and 8-Week Session Begins	Mon., June 14
*Independence Day	Mon., July 5
First 5-Week Session Ends	Sat., July 17

Summer Session II 1999

Second 5-Week Session Begins	Mon., July 19
8-Week Session Ends	Sat., Aug. 7
Second 5-Week Session Ends	Sat., Aug. 21
Summer Commencement	Sat., Aug. 21

Fall Semester 1999

Day and Evening Classes Begin	Mon., Aug. 30

* Classes Canceled (day and evening)

** Classes canceled from Wednesday at 5 p.m. until Monday at 6:45 a.m.

*** Classes canceled from noon to 5 p.m.

University Closing Policy

The president, or designee, upon the recommendation of the Director of Public Safety and Chief of Police, will determine when conditions – such as severe weather or a state of emergency – necessitate closing the entire University or canceling classes at the main campus and/or Wayne College in Orrville.

The Director of Public Safety and Chief of Police will promptly notify other designated University officials and members of the Department of University Communications, who will contact area media. University colleges/departments are encouraged to establish a method for communicating the closing decision to department personnel. Closing information will be announced as early and as simply as possible to avoid confusion.

Cancellation of classes and closure announcements will be made as early as possible in the day and will clearly state the affected campus(es). Call 972-SNOW or 972-6238 (TDD/Voice) for updated information.

Inquiries

Address inquiries concerning:

Admissions information, campus tours, housing, and transfer of credits to the Office of Admissions, The University of Akron, Akron, OH, 44325-2001. (330) 972-7100, or toll-free, (800) 655-4884.

Financial aid, scholarships, loans, and student employment to the Office of Student Financial Aid, The University of Akron, Akron, OH 44325-6211. (330) 972-7032.

Athletics to the Athletic Director, The University of Akron, Akron, OH,44325-5201. (330) 972-7080.

Registration, scheduling, residency requirements, and veteran's affairs to the Office of the Registrar, The University of Akron, Akron, OH 44325-6208. (330) 972-8300.

Graduate study to the Graduate School, The University of Akron, Akron, OH 44325-2101. (330) 972-7663.

The University switchboard number is (330) 972-7111.

Disclaimer

While every effort is made to provide accurate and up-to-date information, the University reserves the right to change, without notice, statements in the Bulletin series which include, but are not limited to rules, policies, procedures, fees, curricula, courses, programs, activities, services, schedules, course availability, or other matters. For example, programs may be modified due to limited resources or facilities, unavailability of faculty, insufficient enrollment, or other such reasons as the University deems necessary.

Please note that editions of this Undergraduate Bulletin prior to 1994-95 were entitled the "General Bulletin."

THE UNIVERSITY OF AKRON IS AN EQUAL EDUCATION AND EMPLOYMENT INSTITUTION . . .

. . . operating under non-discrimination provisions of Titles VI, VII, of the Civil Rights Act of 1964 as amended and Title IX of the Educational Amendments of 1972 as amended, Executive Order 11246, Vocational Rehabilitation Act Section 504, Vietnam Era Veterans' Readjustment Act, and Americans with Disabilities Act of 1990 as related to admissions, treatment of students, and employment practices.

It is the policy of this institution that there shall be no discrimination against any individual at The University of Akron because of age, color, creed, disability, national origin, race, religion, veteran status, or sex. The University of Akron prohibits sexual harassment of any form in its programs and activities and prohibits discrimination on the basis of sexual orientation in employment and admissions.

Complaint of possible discrimination, including sexual harassment, should be referred to:

Affirmative Action and Equal Employment Opportunity Officer
Nell M. Russell
Leigh Hall 202
The University of Akron
Akron, OH 44325-4709
(330) 972-7300

Information on Title IX (sex discrimination) may be obtained from:
Nell M. Russell, Title IX Coordinator
(330) 972-7300

The *Undergraduate Bulletin* is published once each year by the Division of Student Affairs, Buchtel Hall 51

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Vol. XXXVII **August 1998**

POSTMASTER:
Send address changes to *The University of Akron Undergraduate Bulletin*, Office of Admissions, The University of Akron, Akron, OH 44325-2001

Important Phone Numbers

University Area Code (330)

All phone numbers are subject to change without notice.
For numbers not listed, call the University Switchboard (330) 972-7111

Colleges

Buchtel College of Arts and Sciences 972-7880
Community and Technical College 972-7220
College of Business Administration 972-7040
College of Education 972-7681
College of Engineering 972-7816
College of Fine and Applied Arts 972-7564
College of Nursing 972-7551
College of Polymer Science and Polymer Engineering 972-7500
The University of Akron–Wayne College 1-800-221-8308
Northeastern Ohio Universities College of Medicine 325-2511
University College 972-7066

Other Offices

Academic Achievement Programs 972-6804
- Educational Talent Search 972-5771
- N.Y.S.P. (National Youth Sports Program) 972-6804
- Upward Bound Program 972-6804
- Upward Bound Math and Science Program 972-5105

Academic Advisement Center 972-7430
Admissions, Office of ..... 972-7100 or 972-7077
- Toll-Free 1-800-655-4884
- Application Status Inquiries
  - Freshmen
    - A-D 972-7076
    - E-K 972-7316
    - L-R 972-7686
    - S-Z 972-6421
  - Transfer ..... 972-6418 or 972-6419

Associated Student Government 972-7002
Buchtelite, The (student newspaper) 972-7457
Campus Diversity, Office of 972-7658
- Academic Support Services 972-6769
- Access and Retention 972-6769

Career Placement Services 972-7747
Center for Child Development 972-8210
Communication Centers (photocopying)
- Bierce Library 972-6278
- Gardner Student Center 972-7870

Cooperative Education Programs 972-6722
Counseling, Testing, and Career Center
- Counseling Services 972-7082
- Testing Services 972-7084
- Career Placement Services 972-7747

Coventry North, The University of Akron Center at 972-6266
Developmental Programs 972-7087
- Math Lab (CH208) 972-5214
- Math Lab (POL 110) 972-8464
- Reading Lab and Study Skills Center (CH217) 972-6551
- Reading Lab and Study Skills Center (POL110) 972-8964
- Tutorial Programs 972-6552
- Writing Lab (CH212) 972-6548
- Writing Lab (POL110) 972-8964

English Language Institute 972-7544
Financial Aid, Office of Student 972-7032
- Scholarships 972-7032
- Student Employment 972-7405
- Student Volunteer Program 972-6841
- Work Study 972-8074

Gardner Student Center 972-7866
Graduate School 972-7663
Greek Affairs 972-7909
Health Services, Student 972-7808
Honors Program 972-7966
International Programs 972-6349
- Academic Advising 972-6349
- Immigration 972-6349
- International Admissions 972-6349

Intramural Sports 972-7132
Libraries, University
- Bierce Library ..... 972-7236 or 972-7497
- Law Library 972-7330
- Science and Technology Library 972-7195
- University Archives 972-7670

New Student Orientation 972-5347
Pan-African Culture and Research Center 972-7030
Parking Services 972-7213
Peer Counseling Program 972-8288
Registrar, Office of the University 972-8300
- Graduation Office 972-8300
- Records and Transcripts 972-8300

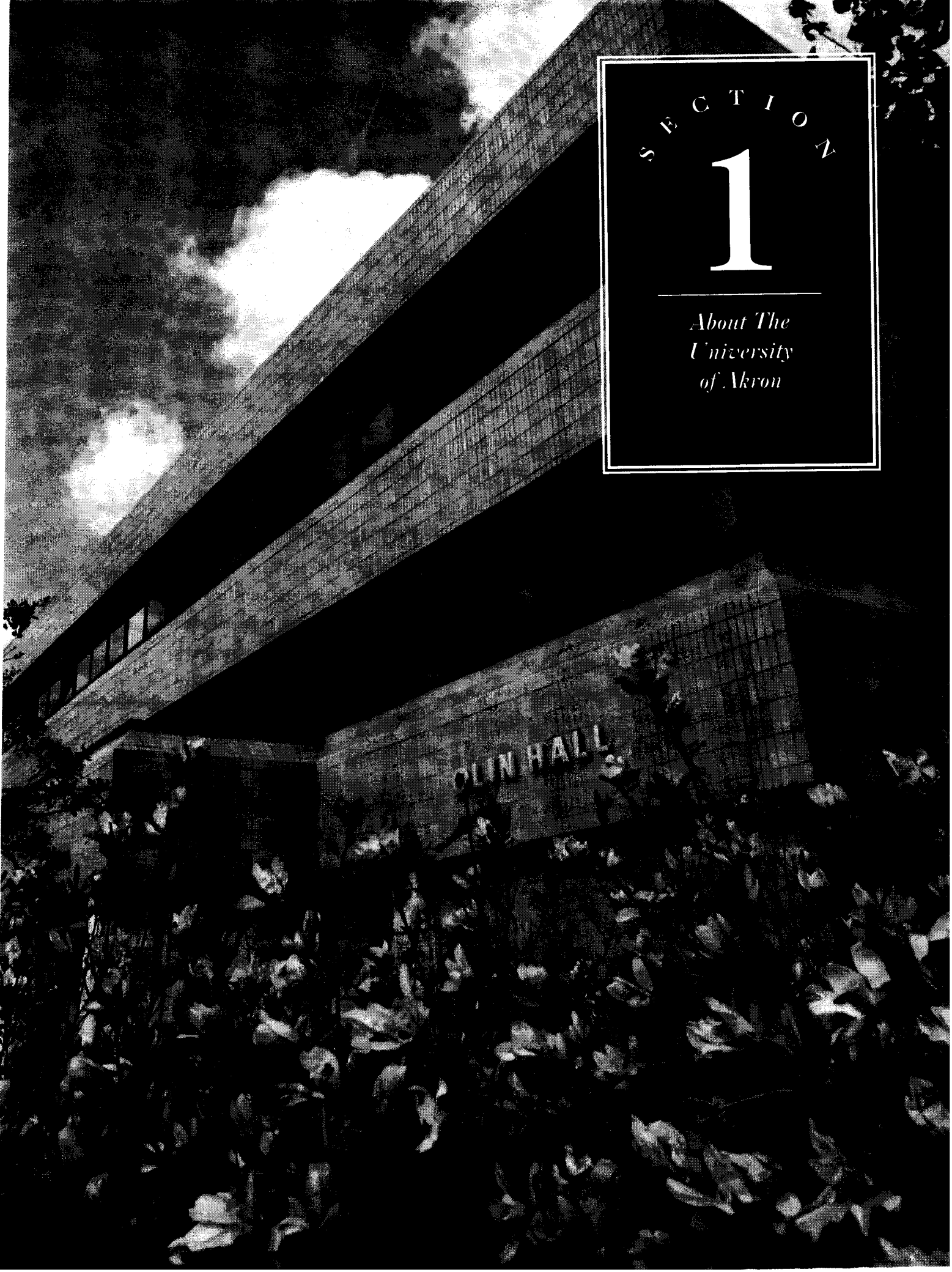
Residence Life and Housing 972-7800
Services for Students with Disabilities 972-7928
- TTY/TDD 972-5764

Sports Information, Director of 972-7468
S.T.E.P. (Strive Toward Excellence Program) 972-6819
Student Affairs, Division of 972-7907
- Assistant Provost and Dean of Students 972-5825
- Assistant Provost, Special Services for Students 972-7274
- Associate Provost for Student and Enrollment Services 972-7067

Student Assistance Center 972-5755
Student Conduct 972-7021
Student Development, Office of 972-7021
Study Abroad 972-6349
Ticketmaster 972-6684
Tours (of the University) 972-7077
Transfer and Articulation 972-7066
University Program Board 972-7014
Veterans Affairs Coordinator and Counselor 972-7838
Work Study 972-8074
WZIP-FM Radio Station 972-7105

Emergency Phone Numbers

Police/Fire/EMS 911
Police (non-emergency) 972-7123
Campus Patrol 972-7263
University Switchboard 972-7111
Closing Information 972-SNOW (7669)



SECTION

1

About The University of Akron

Background

HISTORY

The connection between The University of Akron and its surrounding community has been a recurring theme from the institution's founding as a small denominational college in 1870 to its current standing as a major, metropolitan, state-assisted university. It is significant that the efforts, energy, and financial support of an Akron manufacturer of farm equipment, John R. Buchtel, were instrumental in persuading the Ohio Universalist Convention to build its college on a hill overlooking the town that stretched along the Ohio Canal. The grateful trustees responded by naming the school Buchtel College. It is also significant that during its first four decades the struggling institution was repeatedly aided in its efforts to survive by various local entrepreneurs who pioneered and prospered in such industries as cereals, clay products, matches, and rubber. Buchtel College's emphasis on local rather than denominational interests became increasingly clear, and by 1913 those strong ties and the school's financial situation caused its trustees to transfer the institution and its assets to the city. For the next 50 years, The Municipal University of Akron received its principal support from city tax funds and swelled from an enrollment of 198 to nearly 10,000.

The growth of the college paralleled the remarkable expansion of the community itself. From 1910 to 1920 Akron was the fastest-growing city in the country, evolving from a thriving canal town of 70,000 to a major manufacturing center of 208,000, thanks in large part to a boom in local factories that bore names such as Goodyear, Firestone, Goodrich, and others. The age of the automobile—and the demand for inflatable rubber tires—changed the complexion of Akron forever.

Changes within the Municipal University's curriculum reflected the strong interrelationship of town and gown. In 1914 a College of Engineering began instruction, and other professional schools followed: Education (1921), Business Administration (1953), Law (1959), the Community and Technical College (1964), Fine and Applied Arts (1967), and Nursing (1967).

Considering the institution's location in the heart of a burgeoning rubber industry, it seemed only appropriate that the world's first courses in rubber chemistry would be offered at Buchtel College, in 1909. From those first classes in Professor Charles W. Knight's laboratory would evolve the world's first College of Polymer Science and Polymer Engineering (1988), now the largest academic polymer program in the world. In the 1930s and 1940s, with the establishment in Akron of the Guggenheim Airship Institute, University scientists studied the structure and design of zeppelins. During World War II, University of Akron researchers helped fill a critical need in the U.S. war effort by contributing to the development of synthetic rubber. The University's polymer programs have produced some of the world's most able scientists and engineers, and today attract millions of dollars annually in research support, as well as top graduate students from around the world.

Research, innovation, and creativity actively take many forms at the University — in the sciences and in the arts and humanities. Today, University faculty study ways of matching workers with jobs to maximize performance; they develop new ways to synthesize fuel; they write and produce plays, pen poetry, choreograph dance works; they explore improved methods of tumor detection; they evaluate water quality in northeast Ohio; they provide speech and hearing therapy to hundreds of clients; they aid the free enterprise system by sharing the latest in business practices with new and established companies alike; they provide health care in community clinics; and they study political campaign financing and reform. Faculty are awarded patents each year for their work on new technologies and products. The University of Akron's continuing and central commitment to the liberal arts is signified by the perpetuation of the institution's original name in the Buchtel College of Arts and Sciences.

And the University has maintained an openness to innovation in other ways. As early as the 1880s, Buchtel College was liberalizing its curriculum by allowing students to choose free electives within their courses of study. The University later adopted and developed the general education concept, which represents an attempt to prepare students for both their personal and their professional lives by providing a balance between courses that teach them how to make a living and courses that teach them about life as we know it in Western civilization. As early as 1914, nine University engineering students headed out into Akron factories, initiating one of the country's first engineering cooperative education programs. World War I-era students included the nation's first female students to co-op in a commercial job.

The University has a long tradition of serving the needs of part-time and full-time students through day and evening classes, and it attracts traditional-age students and adult students of all economic, social, and ethnic backgrounds. Committed to a diverse campus population, the University is at the forefront of all Ohio universities in recruiting and retaining minority students.

The University's first doctoral degree was, appropriately enough, awarded in polymer chemistry in 1959, but master's degrees were granted as early as 1882. The University of Akron now offers 17 doctoral degree programs and four law degree programs as well as more than 100 master's degree programs and options. The University offers undergraduate students a choice of more than 200 majors and areas of study leading to associate and bachelor's degrees. Hundreds of noncredit continuing education courses, certificate programs and specialized training opportunities are available for individuals and organizations.

In 1963 the receipt of state tax monies made the University a state-assisted municipal university, and on July 1, 1967, The University of Akron officially became a state university. Today, nearly 24,000 students from 35 states and 80 foreign countries are enrolled in its 10 degree-granting units. The University of Akron is among the 60 largest universities in the nation and boasts the third-largest principal campus enrollment of Ohio's state universities. The University offers a comprehensive academic package featuring select programs unsurpassed nationally and internationally. Alumni of the University number about 107,000 and include scientists, engineers, artists, lawyers, educators, nurses, writers, business people, and other professionals at work in every state and 84 foreign countries.

The 170-acre Akron campus, with 73 buildings, is within walking distance of downtown Akron and is located in a metropolitan area of 2.8 million people. The University's presence in northeast Ohio provides numerous opportunities in recreation, major collegiate, amateur, and professional sports, concerts, cultural events, and commerce, all within easy driving distance and many accessible via public transportation. Located on campus, the Ohio Ballet, Emily Davis Art Gallery, University Orchestra, Opera/Musical Theatre, concerts, recitals, choral programs, Touring Arts Program, University Theatre, Repertory Dance Company, and professional artists performing at E.J. Thomas Performing Arts Hall contribute to the University's rich cultural environment. The University has achieved a position of prominence in a number of intercollegiate sports. Having joined the Mid-American Conference in 1991, the University participates on the NCAA Division I level in 17 sports.

For more than a century The University of Akron has been an active participant in Akron's renaissance of commercial and artistic endeavor, a leader in the metropolitan area's intellectual and professional advancement, a center for internationally lauded research efforts, a source of enrichment, education, and vitality for northeast Ohio. Our history is a long and proud one — but at The University of Akron our eyes are on the future, for our students, our faculty and staff, our community, and our world.

MISSION STATEMENT

The University of Akron, a publicly assisted urban institution, strives to develop enlightened members of society. It offers comprehensive programs of instruction from associate through doctoral levels; pursues a vigorous agenda of research in the arts, sciences and professions; and provides service to the community. The University pursues excellence in undergraduate and graduate education, and distinction in selected areas of graduate instruction, inquiry, and creative activity.

STRATEGIC DIRECTIONS

The following strategic directions provide further definition of the University's mission and serve as the bases upon which the colleges, departments, and service units of the University are establishing program objectives now and toward the 21st century.

Strategic Direction I
Attract and retain a higher quality and more diverse student body.

Strategic Direction II
Identify and eliminate barriers to a campus culture of service, and make every effort to improve the campus environment.

Strategic Direction III
Increase student retention and progress toward completion of their academic program.

Strategic Direction IV
Improve the quality of the undergraduate experience.

Strategic Direction V
Cultivate scholarly and creative activities that are recognized regionally, nationally, and internationally.

Strategic Direction VI
Acquire and efficiently utilize the human, informational, financial, and physical campus resources needed to fulfill the mission of The University of Akron.

A CIVIL CLIMATE FOR LEARNING: STATEMENT OF EXPECTATIONS

The University of Akron is an educational community of diverse peoples, processes, and programs. While all of us have our individual backgrounds, outlooks, values, and styles, we all share certain principles of personal responsibility, mutual respect, and common decency. Our campus culture requires that we maintain and extend those principles, for without them we cannot thrive as a humane and worthwhile university. To keep ourselves aware of these shared principles, this statement articulates some of the expectations and responsibilities of a civil climate for learning on our campus.

Principles of Our Campus Culture

Our campus culture acknowledges the importance of all in our community for their participation in our common enterprise as a university. We value the contributions and we respect the needs of students, faculty, contract professionals, staff, administrators, maintenance and service personnel, and everyone else whose work and dedication enables us to pursue our individual and collective academic goals.

Together we maintain an **intellectual culture** that is accessible, disciplined, free, safe, and committed to excellence.

By our behavior with one another we endorse a **culture of diversity**, celebrating the uniqueness of the individual and developing our understanding and tolerance of differences in gender, ethnicity, age, spiritual belief, sexual orientation, and physical or mental potential.

We take responsibility for sustaining a **caring culture**, nurturing growth and fulfillment in one another and in the larger communities of which we are a part.

We insist on a **culture of civility**, united in our rejection of violence, coercion, deceit, or terrorism. We work to increase collaboration, cooperation, and consensus within rational dialogue characterized by mutual respect and consideration.

Ours is a **responsible culture**. We expect each member of our community to carry out responsibly his or her duties for preserving the integrity, quality, and decency of our environment and our discourse.

Expectations and Responsibilities

To preserve and propagate the Culture of The University of Akron, everyone must engage in certain specific behaviors. Anyone new to this campus must be aware of the expectations we have of each other and be committed to fulfilling his/her responsibility in maintaining our culture.

Inside the classroom

Inside the classroom, **faculty** are expected to respect the sanctity of the teaching/learning process by honoring their commitment to students in terms of time, fairness, and enthusiasm. It is the responsibility of faculty to set and enforce the classroom rules of conduct. Faculty members are expected to treat men and women, persons of all colors and ethnicities, and persons with varying abilities, spiritual preference, or sexual orientation with equitable respect and consideration. Faculty should value and pursue excellence in teaching as well as research. Faculty shall not engage in sexual or other forms of harassment or engage in inappropriate dual relationships with students. Faculty must not tolerate academic dishonesty nor discrimination or harassment from students to other students.

Students are expected to respect the sanctity of the teaching/learning process by expressing respect for the faculty member as the organizer and guide through this learning experience, as well as for fellow students. Disruptive, disrespectful, discriminatory, harassing, violent and/or threatening behavior is explicitly prohibited. Academic dishonesty will not be tolerated. Students are expected to to take responsibility for their own learning and, in return, can expect responsible teaching from the faculty member. Students should report unprofessional behavior on the part of faculty members. Students have a right to expect that they will not be sexually otherwise harassed, intimidated, or threatened.

On the campus

On the campus, everyone is expected to respect and protect the dignity and freedom of each other. There must be the opportunity for expression of all points of view, free from name-calling or ridicule. All members of the University family are expected to be civil and tolerant of others. It is the responsibility of each member of the University community to express dissatisfaction with anyone who fails to meet the responsibility of civility and to request that they do so. In the event that cooperation can not be attained, proper authorities must be involved to insist upon these minimum expectations. Only by campus-wide compliance to these expectations can we achieve a clear sense of our campus culture and, accordingly, a sense of mutual pride.

Students can expect that all representatives of all departmental and administrative offices will treat them with respect, a sense of cooperation and with concern for their welfare. Students can also expect appropriate coordination of services among departments.

Everyone is expected to respect the campus environment by behaving in ways that protect the safety, order, and appearance of all campus facilities. Each person must take steps to preserve the ecological and aesthetic aspects of the campus.

Additional Behavioral Expectations

All members of the University community are required to abide by all laws and regulations of The University of Akron, the City of Akron, the State of Ohio, and the Federal Government. Students are expected to abide by the Student Code of Conduct and the University Disciplinary Procedures. Faculty, contract professionals, administrators, and staff are expected to abide by all University regulations and procedures.

ACCREDITATION

Accreditation assures that degrees are recognized and approved by select regional and national education associations, societies, and councils. The University of Akron has been approved by the North Central Association of Colleges and Schools (30 N. LaSalle St., Chicago, Ill. 60602-2504, telephone 800-621-7440) since 1914 and was recently reaccredited at the highest level as a comprehensive doctoral degree-granting institution. This recognition illustrates the high academic standards maintained at the University and assures students taking preprofessional courses leading to advanced study in such fields as medicine, dentistry, law, and theology that they are receiving sound preparation for acceptance at other graduate and professional schools. Accreditation also provides the security of knowing that the University will honor most credits earned at a similarly accredited college or university. Degrees earned at the University are respected and sought after by prospective employers.

In addition to the recognized regional accreditations, special accreditation for particular programs has been awarded as follows:

AACSB, the International Association for Management Education
Accreditation Board for Engineering and Technology, Technology Accreditation Commission
Accreditation Board for Engineering and Technology, Engineering Accreditation Commission
American Association of Nurse Anesthetists
American Chemical Society
American Council on Social Work Education
American Dietetic Association
American Home Economics Association
American Medical Association
American Psychological Association
American Speech-Language-Hearing Association
Association of Collegiate Business Schools and Programs
Committee on Allied Health Education and Accreditation of American Medical Association
Council for the Accreditation of Counseling and Related Educational Programs (provisional)
Council for Professional Development of the American Home Economics Association
Foundation for Interior Design Education
National Academy of Early Childhood Programs (division of the National Association for the Education of Young Children)
National Accrediting Agency for Clinical Laboratory Sciences
National Association of Schools of Art and Design
National Association of Schools of Dance
National Association of Schools of Music
National Association of Schools of Public Affairs and Administration
National Council for Accreditation of Teacher Education
National League for Nursing Accrediting Commission
Ohio Board of Nursing
Ohio Department of Education

The University also holds membership in the following educational organizations:

American Association of Colleges of Nursing
American Association of Colleges for Teacher Education
American Association of Community Colleges
American Association of State Colleges and Universities
American Council on Education
American Society for Engineering Education
American Society for Training and Development
Association of American Law Schools
Council of Graduate Schools
Council of the North Carolina State Bar
Department of Baccalaureate and Higher Degree Programs (National League for Nursing)
League of Ohio Law Schools
Midwestern Association of Graduate Schools
National Association of Graduate Admission Professionals
National League for Nursing
North American Association of Summer Sessions
Ohio College Association
Ohio Continuing Education Association
State of New York Court of Appeals
University Continuing Education Association

The School of Law is accredited by:

American Bar Association Continuing Education Association

The American Association of University Women grants membership to women graduates with approved baccalaureate degrees from The University of Akron.

Academics

The University of Akron offers comprehensive programs of instruction leading to the associate (two-year), bachelor's (four-year), master's (graduate), and doctoral (graduate or professional) degrees. A student may study in the College of Business Administration, Buchtel College of Arts and Sciences, Community and Technical College, College of Education, College of Engineering, College of Fine and Applied Arts, University College, School of Law, College of Nursing, and College of Polymer Science and Polymer Engineering.

GRADUATE SCHOOL

The Graduate School offers advanced study to students who wish further education beyond the baccalaureate degree with programs leading to the master's degree as well as the doctoral degree.

A separate publication detailing admission procedures and individual study requirements for graduate work is available from the Graduate School. The Graduate Bulletin may be obtained by calling the Graduate School at (330) 972-7663 or writing:

Graduate School
The University of Akron
Polsky Building, Room 469
Akron, OH 44325-2101

Graduate degree programs are listed below. A dagger (†) indicates programs that offer doctorates only; an asterisk (*) signifies programs that offer both master's and doctoral degrees; the remaining disciplines offer master's degrees only.

You may contact the Graduate School via e-mail at *gradschool@uakron.edu* or visit the World Wide Web site at *http://www.uakron.edu/gradsch/* for more information.

- Accountancy
- Biology
- Biomedical Engineering*
- Business Administration
  - *Business Administration/Law Joint Program*
  - *Finance*
  - *International Business*
  - *Management*
  - *Marketing*
  - *Health Services Administration*
  - *Materials Management*
  - *Quality Management*
- Chemical Engineering*
- Chemistry*
- Civil Engineering*
- Communication
- Counseling Psychology*
- Economics
  - *Labor and Industrial Relations*
- Educational Administration*
  - *Administrative Specialists*
    - *Business Management Administration*
    - *Educational Research*
    - *Educational Staff Personnel Administration*
    - *Instructional Services*
    - *Pupil Personnel Administration*
    - *School-Community Relations*
    - *Special (Exceptional Children)*
  - *Assistant Superintendent*
  - *Elementary School Administration*
  - *Higher Education Administration*
  - *Secondary School Administration*
  - *Superintendent*
- Educational Foundations
  - *Computer-Based Education*
  - *Educational Psychology*
  - *Historical Foundations*
  - *Instructional Media and Technology*
  - *Social/Philosophical Foundations*
- Electrical Engineering*
- Elementary Education*
- Engineering*
  - *Applied Mathematics*†
- English
  - *Composition*
- Family and Consumer Sciences
  - *Child Development*
  - *Child Life*
  - *Clothing, Textiles and Interiors*
  - *Family Development*
  - *Food Science*
- Geography
  - *Urban Planning*
- Geology
  - *Earth Science*
  - *Engineering Geology*
  - *Environmental Geology*
  - *Geophysics*
- Guidance and Counseling*
  - *Classroom Guidance for Teachers*
  - *Clinical Mental Health Counseling*†
  - *Community Counseling*
  - *Counselor Education*†
  - *Elementary Counseling*
  - *Marriage and Family Therapy**
  - *Secondary Counseling*
- History*
- Management
  - *Human Resources*
  - *Information Systems*
- Mathematics and Computer Sciences
  - *Applied Mathematics**
  - *Computer Science*
  - *Mathematics*
- Mechanical Engineering*
- Modern Languages
  - *Spanish*
- Music
  - *Accompanying*
  - *Composition*
  - *Education*
  - *History/Literature*
  - *Music Technology*
  - *Performance*
  - *Theory*
- Nursing
  - *Nursing (RN/MSN)*
- Nutrition/Dietetics
- Outdoor Education
- Physical Education
  - *Adapted Physical Education*
  - *Athletic Training for Sports Medicine*
  - *Exercise Physiology and Adult Fitness*
- Physics
- Political Science
- Polymer Engineering*
- Polymer Science*
- Psychology*
  - *Applied Cognitive Aging**
  - *Counseling*
  - *Industrial/Gerontological**
  - *Industrial/Organizational**
- Public Administration and Urban Studies
  - *Law/Public Administration Joint Program*
  - *Public Administration*
  - *Urban Studies**
- Secondary Education†
- Sociology*
- Special Education
- Speech-Language Pathology and Audiology
  - *Audiology*
  - *Speech-Language Pathology*
- Statistics
- Taxation
  - *Law/Taxation Joint Program*
- Technical Education
  - *Administration*
  - *Guidance*
  - *Instructional Technology*
  - *Supervision*
  - *Teaching*
  - *Training*
- Theatre Arts
  - *Arts Administration*

SCHOOL OF LAW

The School of Law provides legal education through day and evening classes leading to the Juris Doctor degree. An applicant must take the Law School Admission Test and have a baccalaureate degree from an accredited college or university. No particular course of undergraduate study is required for admission.

A separate publication detailing admission requirements and the procedure for applying for one of the School of Law's 150 to 165 day-session openings or 65 to 70 evening-session openings may be obtained by calling (330) 972-7331, or (800) 4-AKRON-U, or by e-mail: *lawadmissions@uakron.edu*.

Visit The University of Akron School of Law's home page on the World Wide Web at *http://www.uakron.edu/law/* for more information.

Or you may write to:

Director of Admissions
School of Law
The University of Akron
Akron, OH 44325-2901

Law degree programs are listed below:

- Juris Doctor
- Juris Doctor/Master in Business Administration
- Juris Doctor/Master in Taxation
- Juris Doctor/Master in Public Administration

BACCALAUREATE PROGRAMS

The University of Akron believes that the student should master basic courses in the humanities, social sciences, and physical sciences before proceeding to advanced work in the major. The University College concept guarantees this mastery. A student seeking a baccalaureate degree and having attained less than 30 college semester credits studies in the University College before transferring to a degree-granting college. Study in the University College develops students' abilities to understand and express ideas effectively and to comprehend the processes involved in accurate thinking. After completing the general studies phase, students are admitted to a degree-granting college, where they then concentrate on courses in their specific academic interests. Baccalaureate programs are offered in:

- Accountancy
- Advertising
- Anthropology (Interdisciplinary Program)
- Applied Mathematics
- Art
  - *Ceramics*
  - *Drawing*
  - *Graphic Design*
  - *Metalsmithing*
  - *Painting*
  - *Photography*
  - *Printmaking*
  - *Sculpture*
  - *Studio Art*
- Art History
- Automated Manufacturing Engineering Technology
- Biology
  - *Animal Physiology*
  - *Botany*
  - *Cytotechnology*
  - *Ecology*
  - *Medical Technology*
  - *Microbiology*
  - *Zoology*
- Business Administration
- Chemical Engineering
  - *Polymer Engineering Specialization*
- Chemistry
- Civil Engineering
- Classics
  - *Classical Languages*
  - *Classical Civilization*
- Communication
  - *Business and Organizational:*
    - *Organizational*
    - *Public Relations*
  - *Interpersonal and Public:*
    - *Electronic Media*
    - *News*
- Computer Engineering
- Computer Science
  - *Business*
  - *Systems*
- Construction Technology (2+3)
- Cytotechnology
- Dance
- Dietetics
- Economics
  - *Labor Economics*
- Education
  - *Adolescent to Young Adult*
    - *Integrated Language Arts*
    - *Integrated Mathematics*
    - *Integrated Science*
    - *Integrated Social Studies*
    - *Physical Science*
    - *Dual Science Fields*
      - *Life Science and Chemistry*
      - *Life Science and Earth Science*
      - *Life Science and Physics*
      - *Earth Science and Chemistry*
      - *Earth Science and Physics*
      - *Physical Science (Chemistry & Physics)*
  - *Early Childhood Education*
  - *Intervention Specialist*
    - *Mild/Moderate*
    - *Moderate/Intensive*
  - *Middle Childhood*
    - *Reading & Language*
    - *Mathematics*
    - *Science*
    - *Studies*
  - *Multi-Age*
    - *Dance*
    - *Drama/Theatre*
    - *Foreign Languages*
      - *French*
      - *German*
      - *Latin*
      - *Spanish*
    - *Health*
    - *Music*
    - *Physical Education*
    - *Sport & Exercise Science*
    - *Visual Arts*
  - *Technical Education*
  - *Vocational*
    - *Integrated Business*
    - *Family & Consumer Sciences*
- Electrical Engineering
- Electronic Engineering Technology
- Engineering
- English
- Family and Consumer Sciences
  - *Dietetics Coordinated Program*
  - *Dietetics Didactic Program*
  - *Family and Child Development*
    - *Child Development*
    - *Child Development: Prekindergarten Certification*
    - *Child-Life Specialist*
    - *Family Development*
- Finance
  - *Corporate Financial Management*
  - *Financial Services*
- Geography and Planning
  - *Geography/Cartography*
  - *Geography/Travel and Tourism*
- Geology
  - *Engineering Geology*
  - *Geophysics*
- History
  - *Food Science Business*
  - *Food Science/Product Development*
  - *Home Economics Education*
  - *Fashion Merchandising*
    - *Apparel Track*
    - *Home Furnishings Track*
    - *Fiber Arts Track*
- Humanities
- Interior Design
- International Business
- Management
  - *Human Resource Management*
  - *Industrial Accounting*
  - *Information Systems Management*
  - *Materials Management*
  - *Production/Operations Management*
- Marketing
  - *Marketing Management*
  - *Sales Management*
- Mathematics
- Mechanical Engineering
- Mechanical Polymer Engineering
- Mechanical Engineering Technology
- Medical Technology
- Music
  - *Accompanying*
  - *History and Literature*
  - *Jazz Studies*
  - *Music Education*
  - *Performance*
  - *Composition*
- Natural Sciences
  - *Combined B.S./M.D.*
- Nursing
- Philosophy
- Physics
- Political Science
  - *Criminal Justice*
  - *Government Service*
  - *International Service*
  - *Pre-Law*
  - *Public Policy Management*
- Psychology
- Social Sciences
- Social Work
- Sociology
  - *Corrections*
  - *Law Enforcement*
- Speech-Language Pathology and Audiology
- Statistics
  - *Statistics*
  - *Applied Statistics*
  - *Actuarial Sciences*
- Surveying and Mapping
- Theatre
- Theatre Arts
  - *Musical Theatre*

ASSOCIATE PROGRAMS

Our fast-paced age of technological development needs persons specifically trained for work in the semiprofessional, technical, and highly skilled professions. Most critically needed are laboratory technicians, health technicians, engineering assistants, sales people, supervisors, secretaries, and management assistants. The following is a list of associate degree programs:

Note: The 2+2 programs are cooperative courses of study that allow students to complete a specific associate degree program followed by a related upper college course of study that results in the baccalaureate degree. All associate degree programs of technology are 2+2 within the College of Education's Technical Education baccalaureate degree.

- American Sign Language Interpreting and Transliterating Technology
- Arts
- Automated Manufacturing Engineering Technology (2+2)
- Business Management Technology
  - *Accounting*
  - *General*
  - *Data Administration*
  - *Small Business Management*
- Commercial Art (Inactive)
- Commercial Photography (Inactive)
- Community Services Technology
  - *Alcohol*
  - *Gerontology*
  - *Social Services*
  - *Volunteer Programming*
- Criminal Justice Technology (2+2)
  - *Advanced Officer Training*
  - *Security Administration*
  - *Social Work Emphasis*
- Computer Information Systems (2+2)
  - *Programming Specialist*
  - *Programming Specialist/Pre-Business*
  - *Microcomputer Specialist*
  - *Microcomputer Specialist/Pre-Business*
- Drafting and Computer Drafting Technology
- Educational Technology
  - *Child Development*
- Electronic Service Technology (Wayne)
- Electromechanical Service Technology
- Electronic Engineering Technology (2+2)
- Fire Protection Technology
- Histologic Technology
- Hospitality Management (2+2)
  - *Culinary Arts*
  - *Hotel/Motel Management*
  - *Marketing and Sales*
  - *Restaurant Management*
- Individualized Study
- Legal Assisting Technology
- Manufacturing Engineering Technology (2+2)
  - *Computer Aided Manufacturing*
  - *Industrial Supervision*
- Marketing and Sales Technology (2+2)
  - *Advertising*
  - *Fashion*
  - *Retailing*
  - *Sales*
- Mechanical Engineering Technology (2+2)
- Medical Assisting Technology
- Office Administration
  - *Administrative Assistant*
  - *International*
  - *Medical Secretary*
- Office Services Technology
- Polymer Technology
- Radiologic Technology
- Real Estate (Inactive)
- Respiratory Care
- Surgical Assisting Technology
  - *Surgical Technologist*
- Surveying and Construction Engineering (2+2) Technology
  - *Construction*
  - *Surveying*
- Technical Study – Automotive Technology
- Transportation
  - *Airline/Travel Industry*

Wayne College Programs

- Associate of Arts
- Associate of Science
- Associate of Technical Studies
- Associate of Applied Business
  - *Business Management Technology*
    - *Accounting*
    - *Data Management: Software*
    - *Data Management: Networking*
    - *General Business*
    - *Sales and Services: BankTeller/Supervision*
    - *Sales and Services: Financial Services*
    - *Sales and Services: General Sales*
    - *Sales and Services: Insurance Client Services*
    - *Sales and Services: Real Estate*
  - *Health Care Office Management*
  - *Office Administration*
    - *Executive Assistant*
    - *Legal Administrative Assistant*
    - *Health Care Administrative Assistant*
- Associate of Applied Science
  - *Computer Service and Network Technology*
  - *Environmental Health and Safety*
  - *Social Services Technology (2+2)*

CERTIFICATE PROGRAMS

Students may add a dimension of depth to their education beyond a chosen major by pursuing one of the University's interdisciplinary or interdepartmental programs, which provide concentrated work in the following areas.

Aging Services
Alcohol Support Services
Applied Politics
Canadian Studies
Cartographic Specialization
Chemical Dependency
Chemical Dependency Education and Prevention
Child-Care Worker
Pan-African Studies
Computer Information Systems
Computer Information Systems — Networking Technologies
Computer Physics
Computer Science
Computer Software for Business
Conflict Management
Criminal Justice/Security Emphasis
Digital Electronics and Microprocessors
Drafting/Computer Drafting Technology
Entrepreneurship
Environmental Studies
Fire Protection Technology
Gerontology
Home-Based Intervention
Hospitality Management: Culinary Arts
Hospitality Management: Hotel/Motel
Hospitality Management: Restaurant Management
Interior Design
International Business
Latin American Studies
Legal Assisting
Office Software Specialist
Linguistic Studies
Manual Communication
Marketing and Sales Technology
Marketing and Sales Technology: Advertising
Network Technology
Office Administration: Administrative Assistant
Office Administration: Word Processing
Pan-African Studies
Planning with an emphasis on City or Regional Resource Studies
Professional Communication
Professional Selling
Real Estate
Retail Marketing
Russian Area Studies
Small Business Management
Supervision and Management
Surgical Technologist
Teaching English as a Second Language
Technical Studies
Transportation Studies
Travel and Tourism
Volunteer Program Management
Women's Studies

Wayne College Certificate Programs
Gerontological Social Services
Information Processing Specialist
Legal Office Assistant
Medical Billing
Medical Transcription
Network Management Specialist
Office Software Specialist
Personal Computer Repair
Therapeutic Activities

UNIVERSITY HONORS PROGRAM

The University's Honors Program provides scholarships, curriculum options, special housing, and other advantages to especially motivated and high-achieving undergraduates who meet the program's admission requirements. The Honors Program student completes a major in one of the bachelor's degree-granting colleges, selects a set of Honors Distribution Requirement courses in place of the University's General Education Program, participates in a series of Honors Seminars (Colloquia), and creates a Senior Honors Project. The successful Honors Program student is recognized at graduation with an honors degree and the designation of University Scholar.

INTERNATIONAL EDUCATION:

Study, Work, Travel Abroad

International experience and global awareness are critical to the university graduate entering today's workforce. In addition to enhancing the student's academic background, studying abroad is an excellent way to develop academic and professional skills that will enable the student to gain a competitive edge in today's job market. Among other abilities, the international student develops critical thinking, decision-making and language skills; increases inter-cultural, political, and economic understanding; and enhances self-esteem. The University of Akron has Study Abroad affiliations with universities in Australia, Canada, China, England, France, Germany, Israel, Korea, Mexico, Puerto Rico, Russia, and Singapore. Programs are open to all students, regardless of major, language training, or financial means. A program in The Netherlands is also available for Business majors. Study Abroad may be undertaken for an academic year or a semester, depending on the country.

Short-term study, work, travel abroad programs are also available. Among these programs are: Tropical Biology in Jamaica (Biology), French Studies in Faverges, France (Modern Languages), and International Nursing in Oslo, Norway (Nursing). Contact the sponsoring department or the Office of International Programs at (330) 972-6349, The Polsky Building, Room 483.

Students receive elective credit towards graduation for all courses. Some courses may be applicable to the University's language and General Education requirements, with prior permission. Credits toward a major, minor, or certificate may be completed abroad with the consent of the student's College.

Students may use their financial aid in all University Study Abroad programs. The programs are affordable, and some programs are at or below the average residential cost of attending The University of Akron. Details on nationally competitive scholarship awards; study, work, volunteer, and travel abroad literature; and international career information are available in the Study Abroad Library in the Office of International Programs. International internships are available and are designed to provide an educational work experience to students who want to enhance academic and career preparations.

For study or research after graduation, a student should inquire about scholarship programs abroad late in his/her junior year. The Office of International Programs houses information on the Fulbright, Marshall, National Science Foundation, National Security Education Program (NSEP), Rhodes, and Truman scholarships/fellowships, as well as other grant opportunities.

The International Student Identity Card (ISIC) and International Teacher Identity Card (ITIC) are available for purchase in the Office of International Programs. These cards are globally recognized and provide discounts for students and faculty on airlines, museums, car rentals, hotels, and international telephone calls. Some insurance and a 24-hour, toll-free help line providing medical, financial, or legal emergency assistance worldwide are also included.

More information on study abroad, work abroad, international scholarships, internships, or international identity cards is available in the Office of International Programs, (330) 972-6349, The Polsky Building, Room 483.

WAYNE COLLEGE

To meet the needs of citizens in Wayne, Holmes, and Medina counties, The University of Akron - Wayne College opened its doors in 1972. Wayne College offers eight technical programs as well as the first two years of most baccalaureate programs. The following degrees are available from The University of Akron - Wayne College: Associate of Arts; Associate of Science; Associate of Technical Studies; Associate of Applied Business in Business Management Technology, Health Care Office Management and in Office Administration; Associate of Applied Science in Environmental Health and Safety Technology, Computer Service and Network Technology, and in Social Services Technology. Please refer to Section 4 in this Bulletin for more information about Wayne College programs.

OFF-CAMPUS PROGRAMS

As an urban institution of higher learning, the University clearly identifies and supports its public service role through a variety of off-campus programs. The Division of Continuing Education offers special institutes, workshops, and courses to professional groups through the academic departments, through credit and noncredit continuing education, and through Developmental Programs.

The University also operates educational centers at the following locations:

Brunswick High School
The University of Akron Center-Brunswick High School opened in August 1996 to service the northern Medina County area. The Center offers both credit and noncredit courses during the fall and spring terms.

Nordonia High School
The University of Akron Center-Nordonia High School opened in June 1997 providing service to the residents of northern Summit County and southern Cuyahoga County. Class offerings feature graduate education and undergraduate coursework and noncredit short courses during each fall, spring, and summer term.

The Centers also provide area high school students with access to state-funded Postsecondary Enrollment Program, which allows eligible students to begin college work while still in high school.

OFFICE OF CAMPUS DIVERSITY

The mission of the Office of Campus Diversity at The University of Akron, an advocate for equity and social justice, is to ensure that faculty, staff and students of diverse ethnic, social and cultural backgrounds achieve their fullest potential, in an affirming environment which supports access, retention, and successful completion of their goals. This mission is characterized by extensive student focused collaboration of all segments of the campus community, with an emphasis on preparing students to live and excel in a global society.

The Office of Campus Diversity includes: The Office of the Associate Provost and Special Assistant to the President for Campus Diversity; Office of the Associate Dean of University College and Director of Student Diversity; the Division of Access and Retention; and the Pan-African Culture and Research Center. The Office of Campus Diversity strives to:

- Support the creation and establishment of high quality educational programs to a wide variety of diverse student populations;
- Foster an environment conducive to teaching and learning, and supports and nurtures in its students and faculty, intellectual growth and openness to a range of ideas and human possibilities;
- Instill in students an overarching sense of integrity and social justice so they may contribute as responsible citizens in a diverse community and pluralistic society;
- Prepare students to be successful in the world of work;
- Prepare students for the pursuit of lifelong learning;
- Present cultural, social and intellectual activities for campus and local community enrichment;
- Provide all graduates with the skills and tools necessary to attain personal and professional fulfillment while stimulating intellectual abilities that will enable them to make informed and ethical decisions;
- Serve the community through the application of knowledge to societal problems, thereby enhancing the quality of life.

Through aggressive, innovative and proactive programming, the Office of Campus Diversity seeks to involve all faculty, staff and students in improving the campus climate. The promotion, coordination, and cooperation of various offices, programs, academic departments and service units, will enhance student success. It is through the involvement and interaction of all concerned that needs are met and academic and social development occurs.

Office of the Associate Provost and Special Assistant to the President for Campus Diversity

The Office of the Associate Provost and Special Assistant to the President for Campus Diversity serves as the central administrative unit for the Office of Campus Diversity. This office reports directly to the Senior Vice President and Provost and to the President, and has overall responsibility and supervision of the Office of Campus Diversity. This includes: setting policies on issues related to diversity; creating programs to enhance success of faculty, staff and students; creating cooperative and collaborative liaisons with various offices and officers of the University; developing positive relationships with the community; fundraising for programming and scholarships; publicity and communication to campus and community constituencies; and scholarship opportunities. The Office is located in Buchtel Hall, Suite 202, (330) 972-7658.

Office of the Associate Dean, University College, and Director of Student Diversity

The Associate Dean, University College, and Director of Student Diversity has responsibility for supervising the Division of Access and Retention. Major responsibilities include monitoring academic progress, assisting in the transition of students to their respective colleges, the developmental studies program and involvement with pre-college programs and activities. This officer reports to the Dean, University College and the Associate Provost and Special Assistant to the President for Campus Diversity.

The Office is located in Spicer Hall, Room 120, (330) 972-7066.

Division of Access and Retention

The primary purpose of the Division of Access and Retention is to provide support and assistance for pre-college and recruitment activities and to establish and implement programs and services that will aid in increasing retention and graduation rates for students of diverse ethnic, social and cultural backgrounds at The University of Akron. This unit serves to assist students with the adjustment to university life by encouraging them to achieve their personal, academic, and career goals by utilizing campus resources, establishing effective strategies for success through active participation in the university community and encouraging individual responsibility and involvement. In addition, this office works closely with the campus community in providing direction and support through collaboration and cooperation for activities that promote access, recruitment, and retention of all students.

The following programs are offered through this Unit:

Extended Orientation Program provides students with an opportunity to develop individual plans that will assist them in achieving their educational, personal, and career goals. Furthermore, this program serves to familiarize students with campus resources and support systems that will assist them in making the transition from high school to college.

The **Peer Counseling Program** allows first year and second year students to have one-on-one sessions with upper-class students to provide information and strategies to enhance success at The University of Akron. This program also offers workshops and study sessions to supplement the academic, social and personal needs of students.

The **Emerging Scholars Program** is designed for students of diverse ethnic, social and cultural backgrounds maintaining at least a 3.0 or above grade point average. This program offers students the opportunity to become involved in various leadership programs and activities on campus. In addition, students can take advantage of many special opportunities that are available including scholarship and financial aid programs; nominations for national leadership awards; participation in programs that promote graduate and professional school opportunities; internships and co-op programs; and the development of a career marketing plan. Additionally, information is provided about participating in study abroad programs.

The **PASSAGE** (**P**reparing **A**kron **S**tudents for **S**uccess, **A**chievement and **G**reat **E**xpectations) **Program** is designed to assist freshmen with the transition from high school to college through the development of academic, personal, and social skills necessary for success. This program promotes student development and involvement at all levels of the campus community. The program encourages participation in leadership activities and programs. Although the program is voluntary, in order to participate, freshmen students must commit to participate in specific activities and support services.

The **Transitions Program** is a collaborative effort with the degree-granting colleges at The University of Akron. This program serves to assist students in University College to make the transition to an academic college. The emphasis is designed to ensure that students are prepared for the transition to the degree-granting college, and to assist the colleges in developing strategies that will increase the persistence and graduation of students. Furthermore, the program is designed to prepare students for the transition from college to the world of work or to graduate and professional school opportunities.

The Firestone Fellows **Strive Toward Excellence Program (STEP)** is a pre-college preparatory program designed to assist students who aspire to attend college. STEP selects students in grade six. Designated as "Firestone Fellows," they participate in STEP for two years and then move into the University's Upward Bound Program, which assists them through high school. Program graduates are guaranteed admission to The University of Akron and granted scholarship assistance. The program serves students who attend Akron Public Schools.

The Strive Toward Excellence Program is located in the Buckingham Building, Suite 55. For more information, please contact the office at (330) 972-6819.

The **Student Leadership Program** has as its major goal, the empowerment of student leaders with an array of leadership skills, allowing them to impact the campus community as well as preparing them to assume major leadership positions in their career fields and in the world.

The main objectives of the Leadership Program are to provide participants with information, opportunities, and experiences about leadership, in general, and their own leadership styles and potential, in particular; to increase the effectiveness of student leaders and their groups on campus; and to provide a theoretical basis of leadership in conjunction with academic curriculum.

Hispanic Outreach Initiatives is designed to create programs and services that will increase access, recruitment and retention of Hispanic students by increasing participation within the mainstream social and academic missions of The University of Akron.

Services offered by the Division of Access and Retention:

- Individual and group appointments for academic advising and counseling;
- Workshops on beginning computer concepts, academic transitions, financial aid, career information, and personal and social development;
- Introduction to campus resources such as tutorial services, financial aid, testing and academic assistance;

- Referral to graduate and professional schools, internships and co-operative education, leadership and other special opportunities.
- Monitoring of academic performance and progress toward degree completion.

The Division of Access and Retention is located in the Buckingham Building, Room 113A. For more information, please contact the office at (330) 972-6769.

The Pan-African Culture and Research Center

The primary focus of the Pan-African Culture and Research Center is to provide opportunities for faculty, staff and students to develop an understanding and appreciation of the African-based cultures which have developed throughout the world. The Center also provides information to support and stimulate student research. Services offered include a variety of lectures, seminars, programs, workshops and activities which promote student development and contribute to a more comprehensive understanding of Pan-African cultures, with an emphasis on the African American experience. The Center is driven by the philosophy of "Legacy, Leadership and Excellence" which forms the basis for a Just Community. It is through understanding our past, preparing leaders for the future and embracing excellence as a way of living that the central theme of the Center's student focused agenda is achieved.

The Center also publishes an annual diversity calendar of events and works with various academic and other units and organizations to promote cross-cultural understanding and appreciation. All students at The University of Akron are encouraged to learn more about the history and culture of Pan-African and African American people.

In addition, the Gallery of Akron's Black History and Culture is housed in the Buckingham Building, adjacent to the offices of the Pan-African Culture and Research Center.

The Pan-African Culture and Research Center is located in the Buckingham Building, Room 101. For more information, please contact the center at (330) 972-7030.

THE UNIVERSITY OF AKRON DIVISION OF CONTINUING EDUCATION

The mission of the Division of Continuing Education is to extend the resources and expertise of The University of Akron by providing quality lifelong educational opportunities which meet community needs.

The Division of Continuing Education at The University of Akron provides a wide range of educational, technical and research services that enhance the effectiveness and quality of lifelong learning. In addition, the Division of Continuing Education provides services that require the special expertise of the faculty and staff to better serve the economic and social development of Northeastern Ohio.

The University of Akron has a strong tradition of service to the community through research, consultation, business partnership and continuing education. Buchtel College's first class (1872) was comprised of 46 regular freshmen and 164 preparatory noncredit students, including civil war veterans. Within a year, Buchtel College enrolled noncredit students in business course in an outreach center in Barberton.

The Division of Continuing Education is the liaison between external constituencies in search of services and technical expertise available through the University and academic and professional units and individuals who can best supply those needs.

The primary goals of the Division of Continuing Education are:

- Providing continuing and professional education.
- Participate actively in technology transfer.
- Share in the significant discoveries of pure and applied scientific research conducted by University faculty.
- Support the development of Ohio business and industry.
- More efficiently use The University of Akron's resources to meet important social and economic needs.
- Facilitate certification of health care and human service professionals.
- Enhance articulation between the University and area schools.

SUMMER SESSIONS

The University's Summer Sessions provide educational opportunities for the student who wishes to attend college classes over the summer. Summer Sessions include work toward associate, baccalaureate, and advanced degrees as well as additional education in students' chosen professions.

The Campus

During recent years, the University campus has undergone many major changes. In 1951 the University's 13 acres encompassed only 10 buildings. Currently the Akron campus covers 170 acres and includes 73 buildings. Plans have been made to renovate and build additional academic, recreational, and parking facilities. The campus is illuminated at night and security personnel patrol the area hourly.

LOCATION

The University is situated in a large metropolitan area. The campus, although centrally located within the city, features parklike pedestrian areas. Students have easy access to retail outlets, transportation, and churches. Akron is easily reached by automobile from major national east-west routes (Interstates 80, 90, 76, and the Ohio Turnpike) and north-south routes (Interstates 71 and 77), all of which link Akron to the surrounding states and regions. The University itself is located between East Market Street and East Exchange Street in the downtown area. For airline passengers, limousine service is available from the Cleveland Hopkins International Airport and the Akron-Canton Regional Airport, south of Akron.

BUILDINGS

Many of the buildings on campus bear the names of prominent persons who are recognized for their contributions in administration, education, business, science, or University service. Major buildings include:

Admissions Building. Located at 381 Buchtel Common, the Office of Admissions assists students with applications, requirements, and procedures for undergraduate, postbaccalaureate, guest, transfer, auditing, or special student status.

Akron Polymer Training Center. The Akron Polymer Training Center is an instructional classroom and laboratory facility for Polymer Engineering and Engineering and Science Technology Polymer Science classes.

Auburn Science and Engineering Center. Named for Dr. Norman P. Auburn, 10th president of the University, this complex is one of the largest academic buildings in the state. The center houses the College of Engineering, including the dean's office, the Engineering Co-op Office; Mechanical, Electrical, Chemical, and Civil Engineering; as well as the Department of Biology, the recently completed $2 million biology research facility, and the science and engineering holdings of University Libraries.

Ayer Hall. Named for the first dean of the College of Engineering, Frederic E. Ayer, Ayer Hall provides classrooms and offices for the mathematics and physics departments.

Ballet Center. This center, located at 354 East Market Street, houses dance studios, a choreography laboratory, faculty offices, and offices for the School of Dance, the Ohio Ballet, and the Dance Institute.

Bierce Library. Named for General Lucius V. Bierce, an Akron mayor, lawyer, historian, state senator, philosopher, philanthropist, and soldier, the building opened in the spring of 1973. In addition to the book and periodicals collections, the facility houses audio-visual materials, maps, and microforms. University Libraries, including science and technology materials located in the Auburn Science and Engineering Center, have holdings of more than 2.8 million items.

Buchtel Hall. Originally built in 1870, this structure was destroyed by fire in 1899 and rebuilt in 1901 (Buchtel Hall II). The administrative center of campus, Buchtel Hall was completely restored in 1973 following a devastating fire in 1971. It is the University's link with its predecessor, Buchtel College. It provides office space for numerous administrative officials of the University.

Buckingham Center. This building houses a Cultural Diversity Center, which includes the Black Cultural Center, Peer Counseling Program, Diversity Council, and a repository of African-American history.

Business Administration Building. This $9 1 million facility, located at 259 South Broadway, was completed in 1991. The structure consolidates office, classroom, and laboratory facilities for the dean of the College of Business Administration, the George W. Daverio School of Accountancy, and the departments of Finance, Marketing, and Management.

Carroll Hall. Adjacent to the Gardner Student Center, Carroll Hall houses classrooms, laboratories, and offices for the departments of Counseling and Special Education, Geography and Planning, Developmental Programs, The Academic Computer Testing Facility and The Office of the President of the Faculty Senate.

Center for Child Development. This former Girl Scout regional headquarters building at 108 Fir Hill has been renovated to accommodate the University's Center for Child Development.

Central Services Building. At 185 S. Forge St., this building houses the administrative service departments of central stores, printing services, and mail room.

Computer Center. Purchased and renovated in 1981 for $1.3 million, this building at 185 Carroll Street houses the University's Information Services offices, main computers, and workrooms, as well as student and faculty microcomputer labs and time-sharing terminals.

Computer Store. Just west of the Gardner Student Center, the Computer Store is operated by Information Services.

Crouse Hall. Crouse Hall houses the Department of Geology, the Center for Environmental Studies, classrooms, and some of the College of Education offices.

E.J. Thomas Performing Arts Hall. Named for Edwin J. Thomas, prominent industrialist and dedicated member of the University Board of Trustees from 1952 to 1975, this cultural center, which cost more than $13.9 million, was formally opened in 1973. Designed to accommodate concerts, opera, ballet, and theater productions, the hall is a masterpiece in architecture, acoustics, and creative mechanisms. It stands at the corner of University Avenue and Hill Street.

Firestone Conservatory. On the first floor of Guzzetta Hall, this facility provides classrooms, practice rooms, and offices for music.

Folk Hall. This building, at 150 E. Exchange St., provides modern, well-equipped facilities for the Mary Schiller Myers School of Art. Studios are available for graphic arts, photography, drawing, painting, metalsmithing, ceramics, and computer design. The Emily Davis Art Gallery is also located in the facility.

Gallucci Hall. This building, at 200 East Exchange Street, formerly a Holiday Inn, is a co-ed residence hall and home to the Honors Program and honors students. It also provides office space for Academic Achievement Programs, and temporary quarters for the Hospitality Management Department and *Crystal Room* dining facility.

Gardner Student Center. This complex was named for Donfred H. Gardner, who was appointed dean of men in 1926, the University's first dean of students in 1937, the first dean of administration in 1955, and later, in 1959, was promoted to vice president. He retired in 1962. This facility, which serves as a unifying force in the life of the institution, houses nearly 80 percent of all non-academic activities on campus. It provides bowling alleys, meeting rooms, lounges, student activity and publication offices and workrooms, a game and billiard room, a bookstore, bank facilities, the Gardner Theatre, a cafeteria, and other dining facilities.

Mary E. Gladwin Hall. Housing the College of Nursing and biology laboratories, this building was named in honor of distinguished alumna Mary E. Gladwin (1887), who rendered unparalleled service to the nation during World War I. The $10 million complex opened in 1979 and includes the administrative offices of the College of Nursing, faculty offices, the Center for Nursing, a Learning Resources Center that includes patient care simulation areas, an audio-visual center, and a state-of-the-art computer learning center.

Goodyear Polymer Center. Construction of the $17 million Polymer Science Building was completed in the spring of 1991. This two-tower structure of steel, concrete, and glass, located at 170 University Avenue, houses offices for the dean of the College of Polymer Science and Polymer Engineering, and the Rubber Division of the American Chemical Society. The facility features a 200-seat lecture hall, offices, classrooms, and research laboratories for the Institute and Department of Polymer Science.

Guzzetta Hall. Complementing the E.J. Thomas Performing Arts Hall, this facility was constructed directly across Hill Street. The $5.5 million structure, dedicated in October 1976, houses the Office of the Dean of the College of Fine and Applied Arts, and departmental space for the School of Dance, Theater and Arts Administration, and the School of Music. In addition to providing more than 40 student practice rooms, the complex houses a small experimental theater and a 300-seat recital hall.

James A. Rhodes Health and Physical Education Building (JAR). This structure on Buchtel Common is connected to Memorial Hall by a pedestrian bridge over South Union Street and contains an intercollegiate basketball facility seating 7,000, an indoor jogging track, physical education laboratories, classrooms, the athletic director's office, the sports information office, athletic offices, and a ticket office.

Hower House. Located on Fir Hill, this 19th-century mansion has been designated a Historic Place by the National Park Service.

Knight Chemical Laboratory. This $10 million complex is named in honor of Dr. Charles M. Knight, who taught the first courses in rubber chemistry at Buchtel College as early as 1909. Opened in 1979, the building houses the Department of Chemistry and features many innovative laboratories with the most sophisticated safety equipment, as well as classrooms and faculty and administrative offices.

Kolbe Hall. Named for the first president of the Municipal University of Akron, this building was remodeled for the School of Communication at a cost of $7.3 million. Additions to and remodeled space within the building have provided space for faculty and staff offices, TV studio areas, WZIP-FM radio station, computer labs and classrooms. The building also houses the University Theatre.

Leigh Hall. Named in honor of Warren W. Leigh, first dean of the College of Business Administration, this facility on Buchtel Common currently houses the John S. Knight Auditorium and general purpose classroom space. Temporary occu-

pants of the building include Interdisciplinary Studies, the English Language Institute, World Civilizations and Humanities in the Western Tradition offices, The Center for Teaching and Learning, the Mathematics Statistics Department, and the Equal Employment Opportunity/Affirmative Action Office.

Paul E. Martin University Center. Located at 105 Fir Hill, the Paul E. Martin University Center has changed from a private club serving dues-paying members to a University-operated restaurant and banquet center. The table service restaurant is open for lunch between 11:30 a.m. and 2 p.m. Business and departmental functions, banquets, receptions, and parties can be scheduled during the hours of 7:30 a.m. to noon. The office of the Department of Development is located on the upper floors of the building.

McDowell Law Center. Named for C. Blake McDowell, prominent local attorney, alumnus, and benefactor of the University, the center houses the School of Law. Opened in 1973 at a cost of $2.5 million, it provides space for the law library, classrooms, moot courtroom, appellate-review office, seminar rooms, and faculty offices. A $2.8 million addition provides library and support space, and a $1.5 million second expansion has linked McDowell Law Center to West Hall, providing additional administration office space. The law complex stands at the corner of University Avenue and Wolf Ledges Parkway.

Memorial Hall. Dedicated to the memory of Summit County men and women who died in World War II, this is the companion building to the JAR. It contains offices of the Department of Health and Physical Education, a main gymnasium, a gymnastics area, a combatives area, a motor learning lab, a human performance lab, an athletic training lab for sports medicine, a weight training and fitness center, an athletics batting cage, the intramurals sports office, and classrooms.

North Hall. Located on South Forge Street, this building houses, on a temporary basis, supplemental service space for the campus police department.

Ocasek Natatorium. The $6 million natatorium, completed in 1988, is a 70,000-square-foot structure that houses an Olympic-size swimming pool with adjacent spectator seating area, and locker rooms and showers. The center also houses nine racquetball courts as well as weight room facilities. The natatorium is named for former Ohio State Senator Oliver Ocasek.

Olin Hall. Named in honor of Professor Oscar E. Olin and Mr. Charles Olin, this facility was completed in May 1975. The hall houses the Office of the Dean of the Buchtel College of Arts and Sciences and the following departments and institutes: Classics, Economics, English, General Studies, History, Modern Languages, Political Science, Philosophy, Sociology, and the Ray C. Bliss Institute of Applied Politics. The complex is at the corner of Buchtel Common and South Union Street.

100 Lincoln Street Building. This building houses the Purchasing Department, and Telecommunications Department offices, as well as the office of the University Architect and Senior Director of Facilities Planning, and the Office of the Director of Space Utilization.

143 Union Street Building. This building provides temporary space for the offices of the University Treasurer, Resource Analysis and Budget and the Payroll Department.

Olson Research Center. This remodeled warehouse on Forge Street houses the Department and Institute of Biomedical Engineering and the Department and Institute of Polymer Engineering.

Physical Facilities Operations Center. This building, located at 146 Hill Street, houses physical facilities offices, craft shops, the central heating and cooling distribution center, and the Campus Police/Security Department.

The Polsky Building. The largest academic building in Ohio, this renovated downtown department store is home to the Community and Technical College dean's office, and the departments of Business Technology, Public Service Technology, Allied Health Technology, and Associate Studies. Also located here are the University Archives, the Archives of the History of American Psychology, the School of Speech-Language Pathology and Audiology and its Audiology and Speech Center, the Department of Public Administration and Urban Studies, the School of Social Work, the Continuing Education Office, the Office of International Programs, the Graduate Dean's Office, the Associate Vice President for Research and Technology Transfer, including the Office of Research Services and Sponsored Programs, and the Institute for Policy Studies offices. A fast-food service facility and a campus bookstore are in operation on the High Street level (third floor).

Robertson Dining Hall. This building at 248 East Buchtel Avenue has a cafeteria and dining room for students, as well as the campus infirmary, which provides health services for the University.

Rubber Bowl. This off-campus stadium at 800 George Washington Boulevard, four miles from campus, features an artificial turf playing field, seating for 35,000, locker rooms, concessions, and a press box.

Schrank Hall. Named for Harry P. Schrank, longtime member and chairman of UA's Board of Trustees, this complex, which adjoins Auburn Science and Engineering Center, is composed of two academic structures and a parking deck. Schrank Hall North contains space for Civil Engineering offices, the Construction Technology program, and classrooms. Schrank Hall South provides facilities for the School of Family and Consumer Sciences, the Community and Technical College's Engineering and Science Technology Department, and the Army and Air Force ROTC units.

Simmons Hall. Named for Hezzleton Simmons, University president from 1933 to 1951, this hall houses the University Counseling and Testing Center and the Department of Psychology. The Institute for Life-Span Development and Gerontology occupies a portion of the building. A student interested in employment counseling and assistance will find the Placement Services office in this facility.

Spicer Hall. This major student services building houses the Registrar's Office, Academic Advisement Center, the Office of Student Financial Aid, University College, the Office of Services for Students with Disabilities, and the Student Assistance Center, as well as the Parking Systems office, and offices for the University Controller, the University Auditor and External Auditor, the Cashier's Office, and the Loans, Receivables Office.

Stitzlein Alumni Association Center. Named for Harry P. and Rainey G. Stitzlein, this recently remodeled building, north of East Buchtel Ave. at Fir Hill, houses the Office of The Alumni Association.

277 Broadway Street Building. This building provides administrative space for the Office of Human Resources, including benefits, employment services, labor and employee relations, and personnel services, as well as the Department of University Communications.

West Hall. This renovated structure on Wolf Ledges Parkway is part of the McDowell Law Center.

Whitby Hall. Named for G. Stafford Whitby, a pioneer in the development of polymer science, this building opened in 1975. Housed in this facility are some polymer science laboratories and the Department of Chemical Engineering.

Zook Hall. Named to honor George F. Zook, president of the University from 1925 to 1933, this Buchtel Common facility houses the College of Education and provides a lecture room that seats 245, general classrooms, a handicrafts room, a teaching demonstration classroom, a microteaching laboratory, educational media lab, and the Student Teaching Office.

FACILITIES AND EQUIPMENT

The University's addition of modern teaching aids demonstrates its recognition of the need, in this technological age, for up-to-date facilities and equipment. Many of these facilities are described below.

Buchtel College of Arts and Sciences

The **Department of Biology** houses greenhouses, controlled-environment chambers, a new animal research facility, a molecular biology research center, modern laboratories, and equipment that includes advanced light microscopes (differential interference contrast, fluorescence), electron microscopes (scanning and transmission), scintillation counters, ultracentrifuges, DNA sequencing apparatus, and physiographs; vehicles and boats are available for fieldwork. Many biology courses use the department's student computer lab for review of multimedia presentations, data analysis, simulations, Internet and Web assignments, teleconferencing, scanning, word-processing, and printing.

The **Department of Chemistry** is located in Knight Chemical Laboratories. The department offers outstanding instrumentation, such as nuclear magnetic resonance spectrometers, research-grade gas chromatographs, infrared and ultraviolet spectrophotometers, and other modern research tools for identification and characterization of compounds. The Chemical Stores facility maintains an inventory of more than 1,100 items, including chemicals, glassware, and apparatus.

The **Department of Classics** has a Macintosh-based computer lab which gives easy student access to a collection of several thousand original digital images of ancient Mediterranean buildings, artifacts and art works, to the Perseus program, a digital multimedia database on the Greek world (20,000 images and most of Greek literature both in Greek and in translation), and to the Internet and the Web. The lab includes an extensive suite of graphics software, three dual-monitor authoring workstations as well as desktop machines, flatbed and film scanners, and an accelerated 100 base-T local network connected to the University backbone. Digital investigation and creation are a regular part of most classes.

The **Department of Economics** is housed on the second floor of Olin Hall in a modern office facility with space for faculty and graduate assistants. Computing is very important to the study of economics. Students of economics have a shared computer facility containing 10 Gateway 2000 machines running both DOS and Windows as well as a private computer lab within the department. A variety of software programs including economic tutorials, WordPerfect, SAS/MVS, SAS/VM and SAS/PC as well as laser printing services are available. Network access allows students to search for books on Ohio Link, submit jobs remotely to the University mainframe, or search the world via Internet for the latest economic information. The department maintains an active Gopher and

World Wide Web access to economic resources worldwide. The proximity of the labs to the faculty encourages the type of interaction that will enhance students' learning.

The **Department of English** maintains a Communications Center, where English students may create and print papers, do desktop publishing, and gain telecommunication access through the ZIPnet and Internet. The department supports the journal *Seventeenth-Century News* and co-sponsors and staffs *Analytical and Enumerative Bibliography (AEB)*. The Thackaberry Room houses bibliographies, indices, and reference works relevant to the specialties taught. Graduate seminars are held in the department's own seminar room within the English complex.

The **Department of Geography and Planning** houses laboratories for cartographic/GIS instruction, research and production. Equipment consists of computers and peripheral devices for digitizing, scanning, printing and plotting. A darkroom with a process film camera continues to be maintained. The department also houses a varied research collection of maps, aerial photos and periodicals.

The **Department of Geology** has modern instrumentation for field and laboratory studies which includes an automated electron microprobe, automated X-ray diffraction system, ion-coupled plasma spectrometer, atomic absorption spectrometer, ion chromatograph, coal and sulfur analyzers, oxygen bomb calorimeter, gravimeter, resistivity gear, refraction seismography, magnetometers, image analyzer, cathodoluminoscope, microcomputer laboratory with printers, map and video digitizers, wide carriage network plotter, flat bed and slide scanner, core laboratory, research microscopes, a well-equipped darkroom, rock saws, automated thin-section equipment, portable rock corer, Giddings soil probe, a four-wheel-drive vehicle, and two 15-passenger vans.

The **Department of History** in Olin Hall is housed in a modern office suite with space for graduate assistants as well as professors. The Clara G. Roe Seminar Room is used for graduate seminars.

The **Department of Mathematical Sciences** is located on the upper floors of Ayer Hall. Students of mathematics, applied mathematics, statistics, and computer science have access to a wide variety of computing facilities, operating environments, languages, and software in laboratories maintained in and by the department.

Two labs, which contain Intel-based computers, are connected by a Banyan VINES network. One of these labs is frequently used for class laboratory sessions for up to twenty students. This is a standard feature of many entry-level courses in mathematics and computer science. The other lab is an open lab in which students find a similar environment in which to work independently on assignments. The PCs themselves have a Windows 95 environment. NSF TCP/IP has been installed and access is provided to the Internet via ftp, telnet, and Netscape. Software available includes Maple, ISETL, and MATLAB for mathematics; Turbo C++, Visual C++, Macro Assembler, Visual BASIC for computer science; Microsoft Office, and Microsoft Works for more general use.

Another open laboratory is mainly devoted to a UNIX client/server environment. There are ten SUN SparcStations (Solaris 2.3/Openwindows) which support eight X-terminals. These devices are used for many of the upper-level computer science courses. They are on a separate local ethernet network supported by a SUN Sparcserver 20. They also support MOSAIC and Netscape. Languages available include Lisp, FORTRAN, Pascal, two versions of C and C++, Perl, and JAVA.

The campus has a backbone network to which each of the local area networks is connected. Also on the backbone are a DecStation 5000 running ULTRIX, an IBM 4381, Model T-92, running VM/ESA, and an IBM 9672, Model R-41, running MVS/ESA. All of these machines are available from the department via the local area networks. Access to SAS and SPSS for statistical processing, to Model 204, SQL/DS and DB/2 for database applications, and to a variety of programming languages, editors, and network services is provided to students and faculty by these machines.

Two undergraduate statistical laboratories are also supported by the department. Minitab is available in these laboratories on either Macintosh or Intel-based computers. These laboratories are used for statistics courses. Plans for the future include networking these labs.

Three special graduate/research laboratories are also part of the Mathematical Sciences Department. An Applied Mathematics and Scientific Computation Lab contains SUN SparcStations, IBM RISC 6000s, and Silicon Graphics Workstations. A MasPar parallel computer is provided for parallel processing. It is available for research, but is also used for an undergraduate computer science course. A lab is also available for graduate students in computer science. It has a variety of workstations and PCs and is connected to both the Banyan VINES network and the SUN network. The Center for Statistical Consulting provides graduate statistics students with a work experience in which they assist others in the solution of a wide variety of statistical problems. The Center is equipped with a Macintosh computer with Minitab, JMP, and SYSTAT statistical software, as well as a connection to VM for access to SAS and SPSS mainframe computing.

The campus is on both BITNET and the Internet. E-mail is available campus-wide. Most machines in the department also provide Internet access to encourage students and faculty to keep current on subjects of interest. The University and the department have home pages on the web. Additional information about the department, its faculty, and its programs, is therefore available on the Internet. The address for the home page of the department is *http://www.math.uakron.edu*. Remote log-ins from the University are permitted to those who have accounts elsewhere. For example, many faculty members have accounts at the Ohio SuperComputer Center in Columbus, OH.

Dial-in access to all facilities, except the Banyan network, is available. Students are encouraged to work at the location that is most convenient to them. Any communication software using ppp protocols can be used.

With the variety of equipment, operating systems, languages and software, the Department of Mathematical Sciences can meet the computing needs of its students and faculty. As advances and changes are made in what is available, the department makes the appropriate modifications, updates, and purchases to maintain currency in a rapidly changing field.

The proximity of the faculty offices to the computer laboratories encourages regular interaction between students and faculty. E-mail is another vehicle for student-faculty communication. Staff members provide introductory seminars and are always available to assist and guide students. A friendly, informal, helpful atmosphere makes the Department of Mathematical Sciences an enjoyable place to learn and gain practical experience.

A most important resource of the **Department of Modern Languages** is the Language Resource Center in Olin Hall. The Language Resource Center contains facilities for students to listen to audiotapes and view videotapes as a class or individually. Fourteen networked multimedia computers have software for additional language practice and foreign language word processing. Access to the World Wide Web provides students with the opportunity to both read and listen to up-to-date news and cultural information in foreign languages. Magazines and dictionaries are also available for student use.

The **Department of Philosophy** is located on the third floor of Olin Hall. It houses a small computer lab and a private library for philosophy students. Brief biographies and pictures of each faculty member in the department can be found on the University web site.

The **Department of Physics** is located on the first three floors of Ayer Hall. Facilities include research laboratories used for faculty and student research projects, laboratories for experiments associated with coursework and several microcomputer labs for undergraduate and graduate student use. Most of the department's computers are networked. The department has an e-mail system and a web page (*http://www.physics.uakron.edu*) for use by the faculty and physics students. Many instructors use this system to distribute course materials and entertain questions and feedback from students. The smallness of the department provides ample opportunity for interaction with all faculty members. This interaction combined with the laboratory space, computing facilities and reading room offer a diverse learning experience to the student in an attractive and hospitable environment.

The **Department of Political Science** maintains an instructional computer laboratory consisting of eight computers and a scanner. This laboratory is used by Political Science students assigned research tasks requiring improved computer and Internet skills.

The **Institute for Policy Studies** houses the Survey Research Center, the Data Services Center, the Urban University Program, and Institutional Research. Various research opportunities exist for graduate students. The Survey Research Center facility is used for grant and contract research covering national, state and local studies, and provides multiple data collection methods, including a computer-assisted telephone interviewing laboratory.

The **Department of Psychology** is located in Simmons Hall. The department maintains three computer labs that are available for undergraduate and graduate students in Psychology. Two of these labs are used for research, teaching and open lab use. The third lab has access to the internet via Netscape as well as access to campus programs that include OhioLink, ZipLink, VM, MVS and DAX. Equipment available in the computer labs include: Pentium-based computers, HP laser printers, VCRs, and video/computer projectors. Supported throughout the labs are statistical packages which include SAS, SPSS and Lisrel. Wordperfect and MS Word are available throughout the department for word processing. A full-time research programmer/analyst provides hardware and software support for the department and writes custom software for computerized research. In addition to the computer labs, a counseling clinic is maintained by the department and has videotaping capabilities for the study of counseling processes and outcomes. Additional facilities of the Psychology Department include: research areas for individual computer research and for small group behavior research, a Test Room where current psychological testing materials are kept, and an Undergraduate Advising Office for psychology students. Additional information about the department, its faculty, and its programs, is available on the Internet at http://www.uakron.edu/psychology.

The **Department of Sociology** facilities include research laboratories used for funded research projects and a complete microcomputer laboratory for all graduate students. The department shares a computer facility for all students in Olin Hall which includes microcomputers and terminals directly linked to the University's mainframe computer. The anthropology laboratories contain hominid fossil casts, archaeological collections, and a variety of equipment used in archaeological field research projects

Community and Technical College

Most offices and specialized laboratories of the Community and Technical College are located in The Polsky Building and Schrank Hall South. However, the college also uses portions of Gallucci Hall. In addition, Community and Technical College classes are frequently scheduled in classrooms all over the University campus and at local businesses.

The Business Technology Division has many extensive laboratory facilities in The Polsky Building. The Computer Information Systems area has a cluster of well-equipped personal computer labs, plus connections to the University's mainframe computer. The Office Administration program has labs dedicated to word processing, typing, business machines, shorthand/tape dictation, and information management. The Hospitality Management program is located in Gallucci Hall, where a complete restaurant (with kitchen and a 120-seat dining room) serves food to the general public as part of its curricula in food service management and culinary arts.

The Engineering and Science Technology Division is located primarily in Schrank Hall South. Many computer-related laboratories provide hands-on experience for students. The Drafting and Computer Drafting Technology program maintains two drafting laboratories and a new Computer-Aided Drafting Laboratory. The Computer-Aided Drafting Laboratory is equipped with 30 microcomputer work stations utilizing AutoCAD software. The Electronic Engineering Technology program provides a circuits laboratory, electronics laboratory, control system laboratory, digital circuits, and system laboratory equipped with personal computers and a facility for fabricating printed circuit boards. The Mechanical Engineering Technology program maintains two drafting laboratories, a fluids and thermal laboratory, a machine shop for machine tool fabrication, a computer graphics and a CNC programming facility, a CNC machining laboratory, a strength of materials laboratory, and a metallographic laboratory. Manufacturing Engineering Technology labs include equipment for precision inspection and the study of robotics. A variety of surveying instruments including new electronic instruments and computer facilities for problem solutions are available for use in the Surveying and Construction Engineering Technology program. In addition, the division has laboratories for physics courses in mechanics, electricity, heat, light, and sound.

The Allied Health Technology Division is located in The Polsky Building, where laboratories are dedicated to Medical Assisting, Respiratory Care, Surgical Technology, and Histologic Technology.

The Division of Associate Studies is located in The Polsky Building, room 131.

The Public Service Technology Division is located in The Polsky Building, where its Criminal Justice lab is utilized. The American Sign Language Interpreting and Transliterating program makes use of labs there also, and the Child Development program interfaces with the University Nursery Center at 108 Fir Hill. The Fire Protection program has an extensive lab in The Polsky Building

College of Business Administration

The **College of Business Administration** is located in the 81,000 square-foot, four-story College of Business Administration Building, which houses the college's offices, classrooms, computer laboratories, and advising services. The departments of Finance, Management, Marketing, the George W. Daverio School of Accountancy, the Fitzgerald Institute of Entrepreneurial Studies, the Fisher Institute for Professional Selling and the Institute for Global Business share the CBA. All undergraduate and graduate programs are fully accredited by the American Assembly of Collegiate School of Business, the most prestigious accrediting agency for business schools.

Tiered, amphitheater-style classrooms permit close contact between students and professors. The Milton and Henrietta Kushkin Computer Laboratory provides three computer classrooms, each equipped with approximately 35 personal computers and a homework laboratory for students with more than 68 computers. Each PC is equipped with current versions of word processors, spreadsheets, database managers, and multi-media software. Also, all PC's are connected to the Internet, World Wide Web, and e-mail.

The nationally acclaimed Carl V. and Clyde A. Fisher Sales Laboratory provides the college with five small group lab rooms connected by one-way mirrors to a central monitoring and control room. Sophisticated videotape equipment permits the recording of activities in each lab room which can then be shown to students to provide immediate feedback. This facility is a key resource in college programs for training in sales, sales management, negotiation, leadership, and employment interview preparation.

The Goodyear Tire and Rubber Company Lecture Hall, the building's largest classroom, is equipped with a state-of-the-art audio-visual system capable of projecting textbook material, transparencies, slides, videotapes, computer screen images, and the like onto the room's 10-by-10 foot screen. Other classrooms also offer multi-media and internet capabilities.

Facilities for seminars, continuing education programs, and student organization meetings are provided in the John P. Murphy Executive Room and adjacent small-group meeting room.

The CBA Career Center is located in a suite of eight offices on the second floor. The suite includes a reception area, resource library, and interview rooms. The Career Center's dedicated staff of career counselors provides assistance in resume preparation, development of interviewing skills, job-search strategies, on-campus interviews, job referrals, and internship/cooperative education opportunities. The CBA's internship and cooperative education programs are among the most extensive on campus.

Offices of the college's eighteen active student organizations are located in the James Dunlap Student Organization Office Suite just off the atrium lobby. Student Organizations offer opportunities for development of social, professional, leadership, and networking skills through interaction with business professionals and other students.

College of Education

The offices, laboratories, and other facilities of the College of Education are located in Zook Hall, Carroll Hall, Crouse Hall, the James A. Rhodes Health and Physical Education Building, and Memorial Hall.

The **Department of Educational Foundations and Leadership** serves undergraduate and graduate students in the College of Education. The department serves undergraduate students by providing instruction in core courses in teacher education. In the area of leadership, the department provides graduate courses in school administration and higher education administration. The department members also teach the core curriculum of historical, philosophic, psychological, and social foundations required in all graduate education programs. They teach, advise, and supervise problems, theses, and dissertations of students in their degree-granting graduate programs, the master's programs in Educational Foundations, the master's and doctoral programs in Educational Administration, and the master's and doctoral programs in Higher Education.

The **Department of Physical and Health Education** prepares students for careers in teaching, athletic training for sports medicine, sport and exercise science, health education, coaching, related recreational fields, and related health fields. There are laboratories for the study of exercise physiology, motor behavior, teaching skills (microteaching), and computer utilization in physical and health education. The department has access to the James A. Rhodes Health and Physical Education Building (classrooms, the main gym, an indoor running track, a multi-purpose room, and four teaching station areas), Memorial Hall (classrooms, as well as large and small gyms), Ocasek Natatorium (a classroom, a swimming pool, nine racquetball courts, and a weight room), and Lee Jackson Field (14 tennis courts, an outdoor running track, and two softball fields). Each of these facilities and resources is used in the presentation of our undergraduate academic programs.

The **Department of Curricular and Instructional Studies** includes the areas of early childhood, middle childhood, secondary (adolescent to young adult) and preschool to grades 12 (P-12) education. Initial teacher preparation programs are available at the undergraduate, post-baccalaureate and master's degree levels. The early childhood program prepares teachers to teach age three to grade three. The middle childhood program prepares teachers to teach grades four through nine with specialization in each of two areas selected from reading/language arts, mathematics, science and social studies. The secondary program prepares teachers in grades seven to twelve to teach language arts, mathematics, science, social studies, home economics (grades 4-12), or vocational business (grades 4-12). The P-12 program prepares teachers of foreign language, music, dance, drama, or visual arts. Endorsements are available in computer/technology, reading, and teaching English as a second language. The department also offers the Technical Education degree, which prepares students for teaching/training and other personnel positions at the postsecondary level and for business and industry settings. The University Center for Child Development, directed by department faculty, provides day care for children while serving as an experimental learning site for teacher education students.

The **Department of Counseling and Special Education** incorporates three divisions: Counseling and School Psychology, both graduate programs, and Special Education, which prepares undergraduates as teachers for children with special needs and graduate students to be master teachers and supervisors of special

education programs. The department operates a multidisciplinary clinic, the Clinic for Child Study and Family Therapy.

College of Engineering

The offices, undergraduate laboratories, classrooms, research facilities, machine shops, computer laboratories, and other facilities of the **College of Engineering** are located in the Auburn Science and Engineering Center, Schrank Hall North, Whitby Hall, and the Olson Research Building.

The graduates from the College of Engineering's undergraduate programs regularly achieve the highest scores in the State of Ohio on the Fundamentals of Engineering Examination, which is the first step in professional licensure. Student teams that participate in national student competitions consistently are in the top 10% of the competitors. Over 80% of eligible undergraduates elect to combine practical industrial experience with their academic studies by participating in the Cooperative Education Program, which is one of the oldest and most successful Cooperative Education programs in the United States.

Every regular faculty member actively teaches at both the undergraduate and graduate levels while performing research and professional service to the community. The current active research centers include the Computational Mechanics Research Center, the Process Research Center, the Institute for Biomedical Engineering Research, and the Microscale Physiochemical Engineering Center. The College enjoys excellent relations with industry and the public sector. This relationship is formalized through the Engineering Advancement Council, which works actively on behalf of the College, and the Engineering Advisory Council.

The College's undergraduate programs in Chemical Engineering, Civil Engineering, Electrical Engineering, Mechanical Engineering, and the Cooperative Engineering Program are fully accredited by the Accreditation Board for Engineering and Technology (ABET).

The College's new undergraduate programs in Computer Engineering and Mechanical Polymer Engineering will produce their first graduates in time for the next ABET accreditation visit Experienced faculty members guide these two new programs and it is anticipated that both of these programs will be fully accredited at the next accreditation visit.

Future undergraduate programs that are actively under consideration by the engineering faculty and the administration of the University are an undergraduate degree in biomedical engineering and a five-year undergraduate program that combines business and engineering. These programs, if approved, will appear in the 1999 or 2000 Undergraduate Bulletin.

Acting upon the recommendation of the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, the Bachelor of Construction Technology is being transferred to the Community and Technology College. Students currently in the program will be permitted to complete the program. New admissions should contact the Community and Technical College. The transfer of the Bachelor of Construction Technology will be completed by the Fall Semester 1999.

The master's programs in the College consist of departmentally administered Master of Science degrees in Chemical, Civil, Electrical, and Mechanical Engineering. The Dean's Office administers the Master of Science in Engineering degree with specializations in Biomedical Engineering, Polymer Engineering, and Engineering Management.

The Doctor of Philosophy in Engineering is offered in the interdisciplinary fields of Environmental Engineering, Mechanics, Systems Engineering, Materials Science, Transport Processes, Biomedical Engineering, Engineering Applied Mathematics, Chemical Reactions and Process Engineering, Microscale Physiochemical Engineering, and Polymer Engineering. This interdisciplinary degree integrates departmental disciplines and is administered by the Dean's Office. There is coordinated Doctor of Philosophy in Engineering Degree with Youngstown State University and a joint MD/Doctor of Philosophy Degree in Engineering with the Northeast Ohio Universities College of Medicine.

The **Department of Biomedical Engineering** is located in the Olson Research Center and has classrooms, instructional laboratories and research laboratories. Master's students in the Department of Biomedical Engineering, upon completing their studies, receive the Master of Science in Engineering Degree with a Specialization in Biomedical Engineering. Doctoral students, who have completed their doctoral requirements in the interdisciplinary field of Biomedical Engineering, receive the Doctor of Philosophy in Engineering Degree. Biomedical engineering graduate students may also participate in the joint MD/Doctor of Philosophy in Engineering Degree program between the College of Engineering and the Northeast Ohio Universities College of Medicine.

Research faculty members in the Biomedical Engineering Department have strong research programs in biomechanics, instrumentation, signals, and imaging and are active participants in the Institute for Biomedical Engineering Research. There are nine major research laboratories located in the Biomedical Engineering Department.

The Musculoskeletal Biomechanics Laboratory is equipped with materials testing equipment and finite element analysis capabilities. The Imaging Devices, Detector and Sensors Laboratory has instrumentation for design, production, and analysis of medical imaging devices. The Image Processing Laboratory is built around Sun Sparc workstations, two of which are equipped with image processing accelerators. Image processing and display software and a large database of medical images are available for students to use in individual research and class projects.

The Human Interface Laboratory conducts research in virtual reality, telemanipulation, biofeedback therapy and minimally invasive surgery. The Rehabilitation Engineering Laboratory is equipped to conduct collaborative research on problems related to stroke, head injury and arthritic patients. The Biomedical Instrumentation Laboratory has continuous wave and Doppler ultrasonic equipment, temperature sensing devices, and blood pressure and flow monitoring equipment.

The Biomedical Modeling and Control Laboratory focuses on the interplay between modeling, system identification, control theory, physiology and neurobiology for physiological systems and control. The Vascular Dynamics Laboratory provides facilities to analyze blood flow using laser Doppler anemometer and Doppler ultrasound techniques. The Motion Analysis Laboratory studies all aspects of human movement. This laboratory is equipped with a Vicon Motion Analysis System, two AMTI force plates, a MA-100EMG system, and associated computer hardware and software.

The Biostereometrics Laboratory is equipped to perform spatial analysis using three-dimensional sensing technology, which includes a Kern Maps-200 Digitizing System and a JK Laser Holographic camera for laser holographic interferometry.

Students who wish to initiate their undergraduate studies in biomedical engineering, prior to the approval by the Ohio Board of Regents, should enroll under the Bachelor of Science in Engineering, Biomedical Engineering Specialization. Courses taken under the Bachelor of Science in Engineering, Biomedical Engineering Specialization will be transferred to the undergraduate program in biomedical engineering when the undergraduate program in biomedical engineering is approved.

The **Department of Chemical Engineering** is located in Whitby Hall with undergraduate laboratories in the South Tower of the Auburn Science and Engineering Center and research laboratories in the North Tower of the Auburn Science and Engineering Center. The department provides educational opportunities for students at both the undergraduate and graduate levels in Chemical Engineering. Undergraduates may earn a Specialization in Polymer Engineering by taking appropriate courses.

A major feature of the Undergraduate Laboratory is the 24 feet high distillation unit with the Corning Glassplant 6-inch and 12-inch columns configured as a 12-plate bubble-cap column and an 8-foot high packed -bed column. The laboratory has a pilot plant with a 5-gallon agitated reactor and a packed-column stripping facility. Laboratory experiments include a fluid flow measurement apparatus and heat transfer study systems. An undergraduate Environmental Design Laboratory is associated with a variety of courses and is available for individual and team research projects. Demonstration units for ion exchange,biochemical degradation, chemical precipitation, and reverse osmosis are available as well as analytical instrumentation including atomic adsorption and gas chromatography.

The Department of Chemical Engineering has an Undergraduate Computer Laboratory with excellent on-line computer access and up-to-date software. Software programs include word processing, numerical calculations and programming, CAD programs, process simulation software (ASPEN), and computational fluid dynamics software (CFX). Students studying process dynamics and control make use of our Unix based UltraSparc workstations, National Instruments process data acquisition hardware and software, as well as a variety of engineering software packages including Matlab, Mathematica, Maple, Control Station,and Control Toolkit. Undergraduate Design Laboratories are available for honors research, individual design projects, and team projects.

The Catalysis Research Laboratory is equipped with high pressure and high temperature IR reactor system with a Nicolet-5SXC Fourier transform infrared spectrometer and a Balzers QMG 112A mass spectrometer for in situ catalyst preparation, in situ characterization, temperature programmed desorption of NO, H2, and CO, and in situ reaction studies.

The Applied Colloid and Surface Science Laboratory has a state-of-the-art laser light scattering facility including a Lexel argon-ion laser, a vibration isolated optical bench, a Brookhaven correlation and probability analyzer, and an IBM PC-based data acquisition system. The Biomaterials Laboratory has a UV/VIS spectrometer, and lyophilization system as well as a complete tissue engineering set-up including a carbon dioxide incubator, laminar flow hood and Nikon phase contrast microscope with epi-flourescence and video capabilities.

The Multiphase and Solids Processing Laboratory is equipped to do research in filtration and flows through porous media. The labs are equipped with a gamma ray instrument for measuring porosity of packed columns and filter cakes, a Frazier Test to measure air permeability of filter media, a Hiac Royco BR8 particle counter, a Zeta Meter and a Brookhaven EKA Streaming Potential instrument for measuring zeta potentials. An optical system is set up to measure particle sizes and size distributions.

Several pilot plant scale filter assemblies provide for measurements of particle capture efficiencies and liquid permeability. Other laboratories include the Bioengineering Laboratory, the Supercritical Technology Laboratory, the Materials Synthesis Laboratory, and the Chemical Vapor Deposition Laboratory.

The **Department of Civil Engineering** is located in the Auburn Science and Engineering Center and Schrank Hall North and has five major laboratories. In the Environmental Engineering Laboratory, students learn to analyze water, wastewater and contaminated soils to assess its quality and to determine the most effective treatment techniques. Laboratory equipment includes UV-visible spectrophotometers, respirometers, gas chromatographs, high-performance liquid chromatographs, toxicity analyzers, and a total organic carbon analyzer. Water and wastewater analytical dits and specialized meters are also available for field studies.

The Wendell Ladue undergraduate computer room is equipped with personal computers and associated facilities for the use of civil engineering students for both class and personal use.

In the hydraulics laboratory a tilting flume enables the student to visualize water flow in streams and rivers. Models of bridges and dams can be studied; the wave tank enables a student to study the effect of waves on lake shore erosion, harbors, breakwaters, and off-shore structures; the mobile bed tank is used to demonstrate erosion and sediment deposition patterns around bridges, piers, and culvert and storm drain outlets.

In the soil mechanics and foundation engineering lab, a student learns how to analyze soil by a variety of tests and equipment to determine shear strength characteristics, compaction characteristics, and seismic and electrical resistivity equipment for geophysical exploration of soil and rock deposits.

In addition to the standard equipment for routine testing, the laboratory has a computer-controlled cyclic triaxial testing system, pneumatically loaded consolidometers, flexible wall permeameters, a portable static/dynamic cone penetrometer, a pile-driving analyzer, and capability for ground vibration monitoring and analysis.

In the structural materials laboratory the opportunity to observe experimental verifications of earlier training on the behavior of structural members subjected to tension, compression, bending, and torsion is accomplished with the use of three universal testing machines, an MTS closed-loop system which has a loading capacity to 100,00 pounds, and two Instron dynamic testing machines which can be used in either uniaxial or torsional loading.

The **Department of Electrical Engineering** is located in the South Tower of the Auburn Science and Engineering Center. The Department has an undergraduate program in Electrical Engineering and an undergraduate program in Computer Engineering. Both programs take advantage of the learning facilities that are available in the Department of Electrical Engineering which includes laboratories for the study of circuits, analog and digital electronics, control, computers, energy conversion, microprocessor interfacing, power electronics, and electromagnetic/microwaves. Laboratories follow instruction to help the student apply the material learned in class.

.In the circuits laboratory students learn the basics of circuit design, instrumentation and measurements. The laboratory is equipped with digital oscilloscopes, digital volt/ampere meters and other basic measuring equipment.

The analog and digital electronics laboratory builds on the circuits sequence and introduces the student to more advanced design tools and concepts, including computer simulation of circuits. In addition to digital oscilloscopes, the laboratory contains signal generators and the like, specialized equipment such as a transistor curve tracer, single-board microcomputers, development systems, personal computers and other specialized instruments.

The computer laboratory is an open laboratory with free access to students. The laboratory contains networked personal computers with all software necessary for other courses, as well as word processing and networking software. The laboratory also serves courses in computer engineering and many elective courses and for research purposes.

The two control laboratories teach the basics of analog and digital control. The laboratories are equipped with digital measuring equipment, analog and digital computers and interfacing components.

The energy conversion laboratory teaches electric machine, energy conversion, and machine control. The laboratory is equipped with motors, generators and controllers, both digital and analog. Emphasis is placed on computer control of machines.

The microprocessor interfacing laboratory is dedicated to interfacing the computer to the outside world. Students learn how to connect devices to computers, how to program them, and how these can be used in design. The laboratory uses a variety of real-world designs and projects to keep students up to date on this important engineering activity. The equipment in the laboratory includes personal computers, single-board micro computers and industrial controllers in addition to measurement equipment and components.

The power electronics lab is taught as part of a power electronics course and teaches design of power components and circuits for operation at high voltage, high current and high power. Digital controllers and all digital measuring equipment account for a very modern laboratory.

The electromagnetics/microwave laboratory uses basic experiments in transmission lines, waveguides and antennae to teach the principles involved. In addition to the basic equipment, the laboratory has a shielded room for specialized measurements.

Additional laboratories in software engineering, signal processing and advanced control exist as part of elective courses.

The **Department of Mechanical Engineering** is located in the Auburn Science and Engineering Center and maintains laboratories that are used by the undergraduate programs in Mechanical Engineering and the undergraduate program in Mechanical Polymer Engineering. The undergraduate program in Mechanical Engineering is staffed by mechanical engineering faculty and the undergraduate program in Mechanical Polymer Engineering is staffed by faculty from the Department of Polymer Engineering and the Department of Mechanical Engineering. Polymer specialization courses for the Mechanical Polymer Engineering Program are dual listed under the Department of Polymer Engineering and under the Department of Mechanical Engineering.

There are eight laboratories in the Department of Mechanical Engineering. The Thermal and Fluid Science Laboratory has internal combustion engines, a supersonic wind tunnel, a subsonic wind tunnel, and a water tunnel. The Heat Transfer Laboratory has temperature measurements systems, a gas laser, and a spectrum of heat exchangers.

The Mechanical Measurements Laboratory has a complete complement of transducers, calibration equipment and standards, signal conditioners, analog recording devices and microprocessor-based digital data acquisition systems. The Materials Testing Laboratory has a computer controlled servohydraulic structural testing machine and a uniaxial universal testing machine for performing static, quasistatic, cyclic and dynamic tests on a spectrum of engineering materials and several types of hardness testing equipment.

The Experimental Mechanics Laboratory has photoelastic strain measuring equipment and associated facilities, coupled with a complete range of strain gage instrumentation for both static and dynamic measurements. The Mechanical Design Laboratory has several major software packages for computer-aided design connected to the College's Engineering Computer Network Facility (ECNF). The System Dynamics and Controls Laboratory is composed of several microprocessors, analog computers, and digital controllers, as well as equipment for process control and robotics.

The Vibration and Acoustics Laboratory has electromechanical shakers, sound pressure level instrumentation, and frequency spectrum analyzers for modal analysis. The Metallography and Failure Analysis Laboratory has a complete set of metallographic instrumentation for microstructural analysis of both conventional and advanced engineering materials, and electron microscopes for analysis of failure. Undergraduates in the Mechanical Polymer Engineering program use laboratory facilities in the Department of Polymer Science, the Department of Polymer Engineering, and the Maurice Morton Institute of Polymer Science in addition to the laboratories in the Department of Mechanical Engineering.

The facilities in the Department of Polymer Science contain extensive laboratories for polymer synthetic chemistry and for the characterization of macromolecules and polymer morphology. A nuclear magnetic resonance laboratory is maintained with several high-resolution instruments. The applied research section of the Maurice Morton Institute of Polymer Science operates a variety of analytical and compounding / processing laboratories to serve the needs of industry and government agencies for a reliable source of problem solving and data. Processing laboratories include unique blending/compounding and molding facilities.

The Akron Polymer Training Center serves as a laboratory for the processing and testing of rubber and plastic materials. This Center provides classrooms and laboratories for undergraduate students in the Mechanical Polymer Engineering program. The laboratories available in the Department of Polymer Engineering include and the Extrusion Laboratory, the Electromagnetic Radiation and Electron Optics Laboratory, the Thermal and Dielectric Laboratory, the Rheological Laboratory, and the Mechanical Laboratory.

College of Fine and Applied Arts

The mission of the **School of Art** is to provide a high-quality undergraduate professional education in the visual arts. Its mission is also to define and encourage excellence within a diverse student body and to offer expertise and resources as artists to the community. The School of Art's studios and classrooms are housed in a contemporary, 67,000 square-foot building, which features photographic studios and darkrooms for black-and-white and color; a metalsmithing/jewelry laboratory offering casting, fabricating, and anodizing equipment; a printmaking workshop; a ceramics studio equipped for throwing and handbuilding; and a sculpture shop equipped for construction with wood, metal, clay, plaster, stone, as well as foundry work. The graphic design facilities include technology current in the design industry, including Macintosh-based computer systems, typographic, photostat, pre-press materials, on-site color copying, and access to photo studios and darkrooms. The computer imaging area provides visual computer experience using Macintosh computers, three-dimensional modeling, animation, and advanced paint systems in two complete lab settings. The School provides students with a solid background in art history supported by a collection of more than 70,000 slides. The University Galleries, including the Emily Davis Gallery, Bierce Library Gallery, and the Guzzetta Hall Williams Atrium Gallery, display staff-curated national and regional exhibitions as well as student and faculty work, host traveling exhibitions, and maintain a program of catalog publications.

The **School of Communication** features a television classroom/studio and a wide complement of supporting audio and video equipment, including graphics generators and linear and non-linear editors. Portable audio and video equipment is available for location use. There is an audio recording facility with multitrack capability. The School also houses radio station WZIP, an on-air 7,500 watt FM radio station serving Northeast Ohio. WZIP-FM is operated by UA students under the supervision of professional broadcasters and gives students an opportunity to develop skills in broadcasting and communication through the completion of on-air assignments. A multimedia production/editing laboratory-classroom supports class instruction. News, publications, and other writing classes have access to a Macintosh computer laboratory with complete desktop publishing layout, graphics, and print capabilities. The School works in cooperation with local organizations, non-profit groups and professional agencies in an internship program for upper-level students.

The **School of Speech-Language Pathology and Audiology** provides preprofessional and professional training to students who wish to become speech-language pathologists and/or audiologists. The department houses the Audiology and Speech Center, which functions as a practicum training arm as well as a service agency for persons in the Akron community who have speech, language, or hearing problems.

The **School of Dance, Theatre, and Arts Administration** is located in the Ballet Center. The activities in the building include the undergraduate dance programs for the B.A. and B.F.A. degrees, Musical Theatre Degree-B.F.A. in Dance, K-12 Certification Dance courses, dance minor, the Dance Institute for students ages 8 to 18, continuing education for adults, and the Ohio Ballet. There are five studios, each with mirrors, barres, sprung marley floors, and pianos. There is also an athletic training room with a graduate assistant athletic trainer and a jacuzzi. All offices for the dance faculty, staff, and Ohio Ballet are located within the Ballet Center. Annual performances are held in the Ballet Center Stage Studio Theatre, the intimate University Theatre (Kolbe Hall), and E.J. Thomas Performing Arts Hall. The University of Akron is an accredited institutional member of the National Association of Schools of Dance. The **Theatre Program** offers a Bachelor of Arts, Bachelor of Arts in Theatre Arts, Bachelor of Arts option in Musical Theatre, and 7-12 Certification in drama/theatre. It utilizes three different performing spaces to present its annual season of two to four productions. Guzzetta Hall houses the versatile "black box" experimental Sandefur Theatre as well as rehearsal, teaching, and shop facilities. Kolbe Hall is the site of the 244-seat University Theatre, complete with support facilities. This conventional proscenium theatre is the home of theatre productions as is the multipurpose E.J. Thomas Performing Arts Hall. Student productions are performed in Studio 28, Sandefur Theatre, and Kolbe Theatre.

The **School of Family and Consumer Sciences** has food and nutrition laboratories, textile conservation and clothing laboratories, an interior design and drafting laboratory, and a multipurpose lecture/laboratory area. These specially equipped areas are designed for demonstration and study in the areas of home management, equipment, home computers, consumer education, housing, interiors, home furnishings, and community involvement. Additionally, the school maintains an executive conference room, and a graduate and teaching assistants' office. In cooperation with the College of Education, the school also operates and maintains a completely equipped nursery school facility for the study of child development and for teacher education.

The **School of Music** is housed in Guzzetta Hall and also utilizes the E.J. Thomas Performing Arts Hall. Guzzetta Recital Hall seats 250 and is equipped with a pipe organ, harpsichord, two concert grand pianos, and a recording booth. The Music Computer Center is equipped with Macintosh computers and MIDI/sound and video equipment. An electronic music studio features digital and analog multitrack recording and sound synthesis equipment for music composition. Classrooms, studios, and 40 practice rooms (acoustical sound modules) are used for teaching, rehearsals, and practice.

The **School of Social Work** offers CSWE-accredited professional training to social work students by linking them to a variety of local health and human services community agencies and organizations. The strong commitment and interaction with a network of agencies in the community serves as a laboratory for students.

College of Nursing

The **College of Nursing**, housed in Mary Gladwin Hall, provides professional nursing education at the undergraduate and graduate levels. The college is approved by the Ohio Board of Nursing, and all programs are fully accredited by the National League for Nursing. The college has a Student Affairs Office which provides academic advising services to prospective students. The college houses a state-of-the-art Learning Resource Center, including a computer laboratory and the Center for Nursing, which is used by faculty and students for practice and research.

The undergraduate nursing curriculum is a six-semester clinical sequence after completion of University and college prerequisite courses. The undergraduate program offers the basic B.S.N. program and sequences for licensed practical nurses and registered nurses who wish to obtain the B.S.N. degree. The graduate program prepares nurses in the areas of education, administration, and/or advanced practice. Areas of specialization include child and adolescent health nursing, adult health nursing, liaison-community mental health nursing, gerontological nursing and nursing anesthesia. There is also a sequence within the graduate program for registered nurses from associate degree and diploma programs to obtain a master's degree.

Students at all levels have clinical experience in a variety of settings including hospitals, clinics, rehabilitation agencies, long-term care facilities, community health agencies, mental health agencies, pediatric agencies, and home care settings.

College of Polymer Science and Polymer Engineering

The **College of Polymer Science and Polymer Engineering** offers only graduate degrees leading to the Master of Science and Doctor of Philosophy in both Polymer Science and Polymer Engineering. In addition, there are elective courses in both polymer science and polymer engineering for undergraduate science and engineering majors. Options which emphasize polymer engineering have been developed with the **College of Engineering** through the Departments of Chemical Engineering and Mechanical Engineering for undergraduate students interested in the polymer industry. In addition, an interdisciplinary undergraduate program leading to a degree in Mechanical Polymer Engineering, approved by the faculties of the colleges of Engineering and Polymer Science and Polymer Engineering was started in fall 1995. Students in this new program are administered in the College of Engineering, and the program is described in that section of this Bulletin.

The facilities of the **Department of Polymer Science** and the **Maurice Morton Institute of Polymer Science** support fundamental and applied research in polymer chemistry, physics, and many aspects of polymer behavior. There are extensive laboratories for polymer synthetic chemistry and for the characterization of macromolecules and polymer morphology. The macromolecular modeling center provides state-of-the-art computer modeling capabilities for research, and provides a way to introduce chemistry students in local high schools to computer modeling. A nuclear magnetic resonance laboratory is maintained with several high-resolution instruments supervised by a professional staff. The applied research section of The Maurice Morton Institute of Polymer Science operates a variety of analytical and compounding/processing laboratories to serve the needs of industry and government agencies for a reliable source of problem solving and data. The total value of major instrumentation and equipment housed in the polymer science laboratories exceeds $6 million.

The **Department of Polymer Engineering** and **Institute of Polymer Engineering** maintain a broad-based range of processing, structural, and rheological/mechanical characterization facilities. Processing facilities include unique blending/compounding facilities with five twin-screw extruders, a Buss kneader, and seven internal mixers including flow visualization capability; seven single-screw extrusion lines for plastics and rubber, with ultrasonic and sound waves and rotational mandrel dies, and with single/multiple bubble tubular film and cast film extrusion capability as well as a biaxial film stretcher. Molding facilities include screw injection molding capability of five machines, blow molding, plug assist thermoforming and compression molding with composites capability. The Institute of Polymer Engineering is the home of the EPIC-M.A. Hanna Compounding and Blending Center and the Molding Technology Center. Characterization capability includes scanning and transmission electron

microscopy, X-ray diffraction (including a rotating anode X-ray generator), Fourier transform infrared, small angle light scattering, optical microscopy and retardation, radiography, differential scanning calorimetry, thermogravimetric analysis, dielectric thermal analysis, and surface profiling, rheological and mechanical testing, including elongational flow, rotational and capillary shear rheometry, dynamic mechanical, tensile and impact testing.

The **Akron Polymer Training Center**, which serves as a laboratory for the processing and testing of rubber and plastic materials, was opened in June 1994. The Center was developed at the urging of the Akron Regional Development Board and EPIC, an industrial-government-university consortium, to train machine operators and technicians for the polymer industry. The Center also provides classrooms and laboratories for graduate students in Polymer Engineering, for undergraduate students in Mechanical Polymer Engineering, and for two-year associate degree students in Polymer Technology as well as continuing education courses for scientists and engineers.

University Libraries

Library facilities are housed in three separate locations: in Bierce Library on Buchtel Common; the Science Library in Auburn Science and Engineering Center, Room 104; and Archival Services in the Polsky Building, lower level.

Library services include reference and research assistance, user education, bibliographic instruction, and computer-based information searching. Materials can be borrowed from the University Libraries through the circulation department or obtained from other libraries through the OhioLINK network or other resource-sharing arrangements.

The University Libraries' collections contain more than 2.8 million items: books, periodicals, government documents, curricular materials, microforms, maps, audio-visual materials, and archival documents. The library receives nearly 5,000 magazines, journals, newspapers, and other serial publications, such as annual reports and the publications of various societies.

Through the library's memberships in the Center for Research Libraries, the Ohio Library and Information Network, the Online Computer Library Center (OCLC), and the Ohio Network of American History Research Centers, access to vast resources is greatly increased for University students, faculty, and staff.

University identification cards function as library cards. Photocopy services and equipment for use in making paper copies from microforms are available in Bierce Library and in the Science Library. Group study rooms and typing facilities are also in Bierce Library.

Audiovisual Services, located in Bierce Library, Room 63B, maintains an extensive centralized collection of media hardware and audio-visual resources for student and faculty use. It also has a collection of instructional materials in various media formats (filmstrips, slides, etc.) to supplement class-room instruction. The New Media Center supports faculty who want to improve teaching through the use of technology. Audio Visual Services also designs, installs, and maintains technology-enhanced general purpose classrooms, offering permanent in-room projection, sound reinforcement and a sophisticated media retrieval system.

Bierce Library houses the Distance Learning Classroom on the second floor. This is a state-of-the-art facility that permits the University to offer credit and non-credit classes to area schools, agencies and businesses. Part of the Medina Link initiative, this classroom can be connected to "virtually" any geographic location that has the appropriate technology. The University of Akron will have a distance learning classroom in all Medina County high schools and other locations by the year 2000.

Information Services

The **Information Services Department** provides communications and computing support for The University of Akron. There are four divisions within the department:

- Client Services (Computer Center, Lincoln Building and Carroll Hall)
- Technical Services (Computer Center)
- Telecommunications Services (Lincoln Building)
- Applications Services (Computer Center)

The Information Services Help Desk can be reached at (330) 972-6888. Help Desk personnel can answer questions or refer callers to the appropriate source for more information. The walk-in consulting desk is located in the Computer Center, room 144, and can also be reached by E-mail at consult@uakron.edu. Free seminars, handouts, and dial-in software are available.

There are seven general purpose computer labs for students, faculty and staff to use. In addition, there about 165 Windows/DOS computers and 10 Macintosh computers (Computer Center only) in these labs. These computers have personal productivity tools (such as word processing and spreadsheets) and network access. The lab locations are:

- Computer Center, rooms 139, 141 and 146
- Gallucci Hall, room 279
- Bierce Library, room 274A
- Polskys, room 267
- Olin Hall, room 273
- Mary Gladwin Hall, room 306
- Gardner Student Center, room Chestnut B

There are more than 300 dial-in lines for faculty, staff, and students to use with their computers and modems from home to access UA and Internet networks.

UA's computer network, named UAnet, has about 4,000 computers connected on campus. To use these services, faculty, staff and students should go to the Computer Center at 185 Carroll Street and obtain a UAnet ID. The network provides access to:

- ZipLINK - UA's library catalog
- OhioLINK - the library catalogs of all State of Ohio universities and colleges.
- Electronic Mail (E-mail)
- The Internet: a world-wide network, including the popular World Wide Web (WWW) multimedia information protocol
- Usenet news groups
- Discussion lists
- Wayne College
- UA Center at Coventry North
- IBM mainframes and Digital servers

Student information is available using a touch-tone telephone and a PIN number. Services available in this manner include:

- Registration for classes
- Personal financial aid information
- Course grades
- Fee payment by credit card

Computer-Based Education and Testing services provide on-line tutorials, instruction, and testing for UA. The Testing Center is located in Carroll Hall, room 325.

Applications development and support for University systems is provided. Major systems supported include Human Resources, Student Information, Alumni and Financial Aid systems.

Central computer services include:

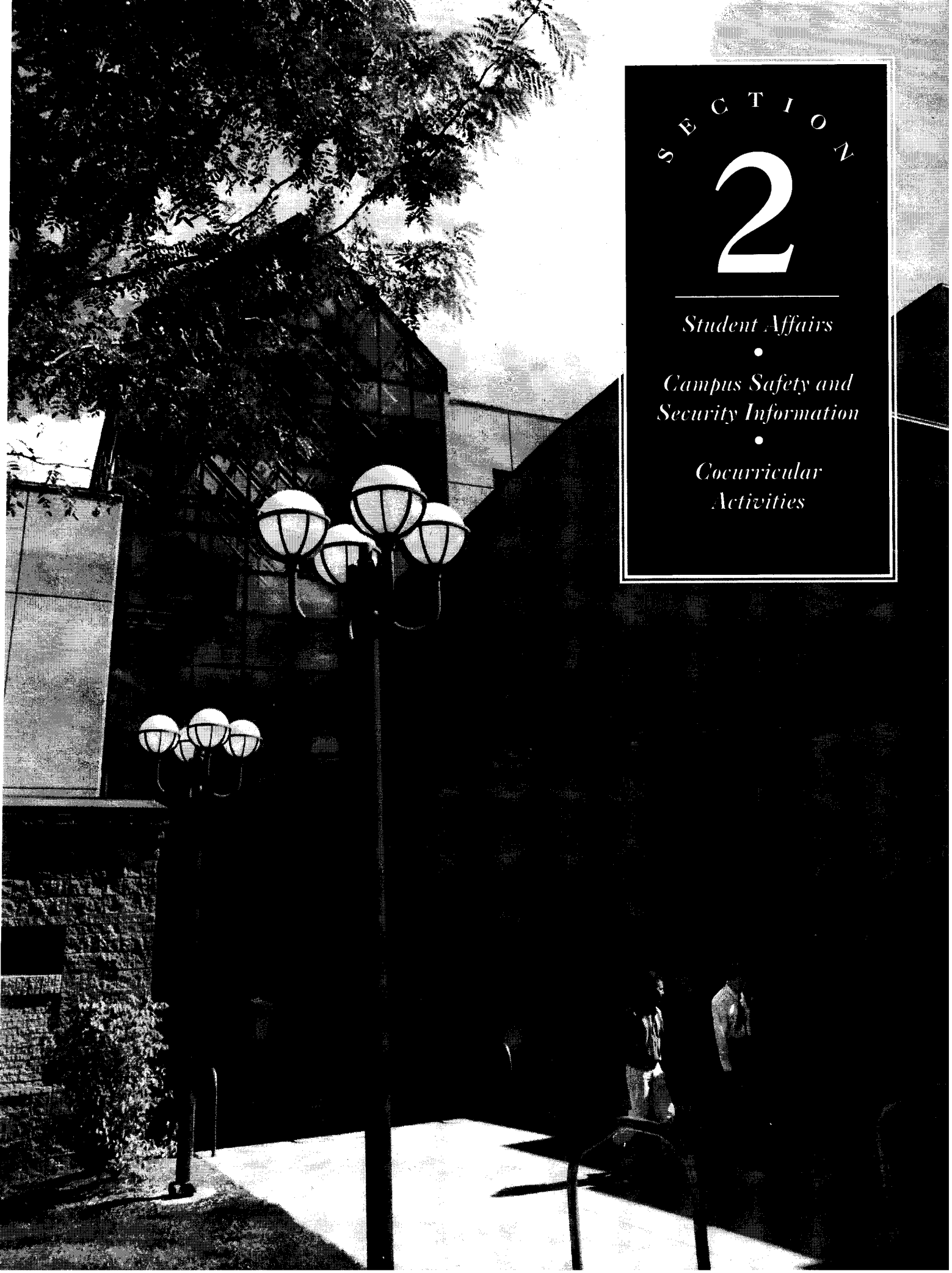
- A CMOS-based IBM 9672/R41 CMOS running MVS/ESA for administrative and batch research applications
- An IBM 4381/R14 running VM/ESA for interactive computer language support
- A Digital DECsystem 5000/240 for unix and c programming
- A Digital AlphaServer 1000 for E-mail and web home pages
- A Digital AlphaServer 2100 for ZipLINK, the on-line library catalog
- A Digital DEC 3000/300LX Usenet news server
- An IBM RS6000/390 for graphical, secure information access
- An NCS Opscan 21-75 optical mark sense reader for scanning mark sense forms

Other services provided to the campus by Information Services include:

- PC purchase information and assistance
- On-campus hardware and software installation services for departments
- Computer repair services (on-campus and carry-in)
- Cable Television - ZIP-TV
- Telephone and voice mail services
- Security systems
- Cable plant management
- Cable television and network connections to residence hall rooms in Grant, Garson, Gallucci, and the Townhouses
- Rental of public address systems for campus events

The Information Services Department continues in its quest to bring staff and students the most up-to-the-minute advances in computer applications, research, knowledge and training.

Visit our web site at http://GoZips.uakron.edu/is for more information.



SECTION

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Student Affairs

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Campus Safety and Security Information

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Cocurricular Activities

Student Affairs

Charged with the responsibility of helping our diverse student body to maximize the total benefit that college offers them, the Division of Student Affairs provides services that promote the academic, social, cultural, personal and physical growth and development of the student. Sensitive to the changing needs of today's college student, this division is committed to helping students meet their individual academic goals.

This responsibility will be accomplished by our commitment to these objectives:

- Creating a civil, supportive learning environment,
- Providing academic support systems to increase student retention and encourage satisfactory educational progress,
- Celebrating diversity within the campus community,
- Collaborating with all constituencies within the University to increase enrollment and improve the quality of the student experience,
- Encouraging students to assume responsibility for their educational decisions and experiences,
- Identifying and addressing evolving student needs in a changing environment, and
- Addressing the needs of greater community constituencies through programs, services, and other resources.

The following section outlines Student Affairs units and the services offered to students.

ACADEMIC ACHIEVEMENT PROGRAMS

The **Upward Bound Program** is designed to provide intense academic, cultural and social experiences for its students, enabling them to develop the skills, attitudes and motivation necessary to enter and succeed in college. Students receive an assortment of services such as academic support, counseling, and advising and participate in the program year round. Upward Bound is federally funded through the United States Department of Education. It is a Federal TRIO Program.

The **National Youth Sports Program (NYSP)** is an instructional program for eligible boys and girls that provides a constructive outlet for the summertime energies at no cost to the participants. The program uses sports instruction and competition as a vehicle for motivating young people from poverty areas to earn and learn self-respect. The program provides participants with instruction in career and educational opportunities and exposure to the college environment. Each participant receives a free medical examination, and follow-up if necessary. Each participant daily receives a free meal or snack. The aim of the NYSP is to help eligible youths learn to "walk tall—talk tall—stand tall."

The **Pre-Engineering Program** is designed to encourage and stimulate the interests of targeted high school students who have expressed or demonstrated interest and skill in mathematics or science to pursue careers in engineering.

The **Educational Talent Search Program** (ETS) provides services to eligible youth and adults to assist them in enrolling or re-enrolling in postsecondary education. The program serves Akron Public Schools students grades 6-12 and adults from the community, via workshops, newsletters, field trips and personal appointments. The program helps participants prepare for college, including assistance with college preparation, selection, admissions and the financial aid application process. Funded by the U.S. Department of Education, this is a federal TRIO program.

The **Upward Bound Regional Math/Science Program** is designed to provide students with the skills and motivation necessary to pursue and complete an undergraduate course of study, preferably in mathematics or the sciences. Focusing on polymer science, the program serves 40 students in the target states of Indiana, Pennsylvania, Ohio and Michigan. The six-week summer residential program consists of integrated instructional classes in Polymer Science/Chemistry, Mathematics, English/Technical Writing and Computer Science plus hands-on laboratory courses in Polymer Science and Computer Science. Other components include: a Research Project, Career Exploration, field trips, cultural experiences, recreational activities, college visits and mentoring by polymer science professors. Emphasis is placed on visualization and "doing" science and math utilizing hands-on projects, independent research, faculty interaction and mentoring while taking advantage of the resources of the world's largest, state-of-the-art polymer instructional and research facility at The University of Akron. Funded by the U.S. Department of Education, this is a Federal TRIO Program.

COUNSELING, TESTING, AND CAREER CENTER

The Counseling, Testing, and Career Center provides a wide range of psychological counseling, therapy, testing, career planning, and outreach and consulting services to the University community. The Center is staffed by psychologists and psychology trainees, and placement professionals. All of our psychological services are confidential and free to enrolled students. The Center is located in Simmons Hall, with the Counseling Services in Room 163, the Testing Services in Room 161, and the Career Placement Services in Room 178. Phone numbers are: Counseling Services (330) 972-7082; Testing Services (330) 972-7084; and Career Placement Services (330) 972-7747.

Counseling Service

The Center's counseling service offers assistance in the following areas:

- Personal-emotional counseling deals, within a short-term framework, with feelings of loneliness, inadequacy, guilt, anxiety, and depression; harmful involvement with alcohol and drugs; recovery from acquaintance or stranger rape; interpersonal relationships, especially with the immediate family, intimate relationships, and roommates; personality development, identity, and self-esteem.
- Educational counseling relates to educational goals, motivation, attitudes, abilities, and the development of effective study habits and skills.
- Group educational programs, through the College Survival Kit, cover a wide range of topics which typically deal with improving grades, reducing test anxiety, planning careers, increasing wellness, and addressing personal issues; as well as providing support groups for minority students and others with a variety of concerns. Brochures are available.
- Career counseling involves discovering one's interests, needs, values, aptitudes, abilities and goals; relating these to the world of work; exploring appropriate major subject and career fields. Interest, aptitude, personality and values testing is available through individual and group counseling. Occupational information is available through reference books and computerized career guidance and information systems.

Testing Service

- A wide range of testing programs including college entrance examinations, career assessments, personality assessments, academic placement testing and some learning disability assessments are available to students.

Outreach and Consulting Service

- The Center's outreach and consulting service offers assistance to the larger university community by providing programs and workshops for a wide variety of campus groups. The Center regularly provides speakers for classrooms, residence halls, student organizations, and administrative offices. Topics include, among others, academic performance, wellness, sexuality, and appreciating cultural diversity.

The Counseling, Testing and Career Center along with the efforts of its Career Placement Services, is able to provide students seamless career development services, from helping them make decisions on majors and career directions to helping them develop job-seeking skills, resume development and interviewing skills. The Center, through the Career Placement Services, also arranges recruiters to come to campus to interview student candidates and organizes and sponsors several career fairs, which also bring recruiters in direct contact with students.

CAREER PLACEMENT SERVICES

The primary mission of the Career Placement Services office of the Counseling, Testing and Career Center is to assist graduating students in their initiatives in seeking full-time employment. The office combines the University's placement and cooperative education programs, which assist students in preparing for their job search, obtaining pre-professional, experiential education assignments, and entering the job market upon completion of their degree. Career Placement Services is a part of a collaborative effort with the Counseling and Testing Center to provide for the comprehensive career development needs of students.

Career Placement Services is located in Simmons Hall 178, (330) 972-7747. A satellite office is located in the Community and Technical College, Room 110 A, Polsky Building, (330) 972-8378.

Placement Services

Placement Services for graduating students include on-campus interviews with representatives of businesses, industries, education, branches of the government and military. In addition, workshops are offered on Resume Writing, Cover

Letters, Interviewing Skills, and the Self-Directed Job Search throughout the fall and spring semesters. Personal career consultation may be scheduled with placement advisors. A reference library of employer literature and videotape presentations is also available. Other services to registrants include computerized job referrals and the maintenance and distribution of students' credential files. Career Placement Services also sponsors a Fall Career Fair, a Career Fair for summer employment, a Teacher's Career Fair, and other specialty career fairs. These fairs give students the opportunity to meet and speak with a large number of potential employers. Workshops for specialized job search skills for students and underrepresented groups are also available.

Cooperative Education

These programs combine classroom learning with paid work experience. Qualified students are placed in career-related preprofessional work assignments in industrial, commercial, professional, governmental, or service organizations. The programs enhance a student's education and career preparation by integrating classroom theory with on-the-job performance; providing an understanding of work environments and professional requirements; providing an opportunity to test career and professional goals;and encouraging and developing self-confidence and maturity. The cooperative education experience also helps develop skills in human relations, and it affords the student the opportunity to establish professional contacts and interests.

Students in good academic standing are eligible for work assignments. They must have completed half of their academic requirements, have attended an orientation program, and have been accepted by the cooperative education coordinator in their respective fields. Additional standards may be required by some departments or employers. Final hiring decisions are made by the employers. Students and employers participating in cooperative education are subject to all federal, state, and local labor laws. Additionally, students on work assignment must abide by all the rules and regulations of the participating employer and of cooperative education.

Participating students are recognized as full-time students at The University of Akron when working on an approved cooperative education field assignment and when complying with the rules and regulations of the cooperative education programs. The Cooperative Education Program is located in Career Placement Services, Simmons Hall 178, (330) 972-7747.

Other specialized cooperative education programs exist on campus. The Cooperative Engineering Education Program is located in Auburn Science and Engineering Center 203, (330)972-7818. The College of Business Administration Cooperative Education Program is in CBA 260, (330) 972-7827.

Student Employment

Student Employment assists students in finding part-time employment opportunities on campus. These positions may or may not relate to students' career goals and are designed to allow the students to work around their academic schedules. The Student Employment Office is located in Simmons Hall 178.

Job Location & Development

The Job Location & Development Program exists to assist students in locating off-campus part-time employment. By working part-time, students are able to gain some valuable work experience and to earn money to assist with college expenses. Part-time jobs are posted in glass display cases and in notebook binders in the the Office of Placement Services Center in Simmons Hall, and in the Gardner Student Center.

Student Volunteer Programs

Student volunteer programs seek to recruit and refer student for volunteer positions with social service and nonprofit agencies in Northeast Ohio. Volunteering offers students a wealth of experience which will enable discovery of the reality of American life in ways that cannot be as graphically communicated in the classroom. In addition, the rendering of public service by student volunteers will help them: develop an understanding of professional requirements and their role as truly educated citizens; enhance their educational experiences; give concrete form to the abstract learning of the college curriculum by applying it to immediate human needs; and know that a truly successful life must include helping others.

Students who are in good academic standing may participate in the program's volunteer activities. Students are also expected to respect the rules and regulations of their volunteer agency. The Student Volunteer Program is located in the Office of Placement Services in Simmons Hall.

GARDNER STUDENT CENTER

The Gardner Student Center, located in the center of campus, serves the students, faculty, and staff, and is one of the University's major assets in meeting the University-wide goal of public service. This busy facility houses four food service facilities, meeting rooms, lounges, Gardner Theatre, student organization offices, recreation facilities, the Communication Center, a bank, Ticketmaster/Film Center, and a bookstore.

- **Food Areas** in the Gardner Student Center offer a variety of food items. On the first level, the Chuckery features the services of a fast-food operation, a pizza & mexican shop, and an ice cream and yogurt shop. For more of a cafeteria-style offering, the Hilltop, on the second level, provides deli-style selections at Sara Lee's, as well as full catering for banquets and meals.
- **Gardner Theatre**, located on the upper level, screens first- and second-run movies twice per night Tuesday through Sunday and is open to the public.
- The **Game Room**, located on the lower level of the Gardner Student Center, is open seven days a week for the convenience of the University family to enhance free time activity. The Game Room offers eight bowling lanes, 16 billiard tables, foosball, and a variety of video games. For the competitive individual, tournaments in many of these recreational activities are programmed each semester by the Game Room staff.
- The **Communication Center**, located in the lobby of Gardner Student Center offers the following services: informational and referral services; copying, including color; oversized and reduced copies; binding of materials; mailing facilities for campus and U.S. mail; literature distribution; and class support files.
- The **Ticketmaster/Film Center**, located in the lobby of Gardner Student Center (330) 972-6684, sells tickets to most events in northern Ohio, including Blossom Music Center, The IX Center, Playhouse Square, Public Hall, and the Jacobs Field and Gund Arena. Over-the-counter sales include tickets to campus functions, including sporting events, and to local shows. Film and film processing services are also available.
- **The Bookstore at The University of Akron** is operated as a service of Barnes & Noble Bookstores, Inc. of New York City. Barnes & Noble operates 300 other college stores. The primary purpose of the Bookstore is to make available books and supplies required for course work. In addition, the store also carries a wide range of classroom supplies, paperbacks, engineering and art supplies, greeting cards, University memorabilia, clothing and other sundry items.

OFFICE OF INTERNATIONAL PROGRAMS

In support of The University of Akron's mission to internationalize the university experience, the Office of International Programs strives to achieve the following:

- Develop and support programs and experiences that will encourage Akron students in becoming global citizens.
- Establish and maintain contacts with institutions that will promote student, staff, and faculty exchange.
- Facilitate the recruitment and retention of international students.
- Develop activities designed to enhance international understanding and appreciation of cultural diversity.
- Support the development of departmental, collegiate, community programs and projects that advocate intercultural awareness.

For further information, contact:

Office of International Programs
The University of Akron
Polsky Building, Room 483
Akron, Ohio 44325-3101
(330) 972-6349 Phone
(330) 972-8604 Fax
international@uakron.edu E-mail

RESIDENCE LIFE AND HOUSING

The Department of Residence Life and Housing is administratively responsible for managing the University's student housing program. The University provides reasonably priced, clean, convenient and secure residence hall facilities. In addition, the residence hall program is committed to providing a meaningful living/learning environment which directly supports the educational, social, and personal development of each student.

The Department of Residence Life and Housing supervises and manages nine on-campus residence hall facilities accommodating approximately 1,650 students. Students are encouraged to apply for residence hall accommodations as soon as possible after being admitted to the University. Housing assignments and honoring student preferences are determined by the student's housing application date.

Once admitted to the University, new students will receive a Contract for Housing Accommodations and Food Service which must be returned with the prepayment/deposit ($150) to reserve a residence hall assignment. The prepayment/deposit will be refunded to new students for Contract cancellations received before May 15; the prepayment/deposit is forfeited for cancellations received after May 15.

Staff, supervised by the Department of Residence Life and Housing, reside in each hall. A professionally trained Residence Hall Life Coordinator is assigned to each building, and selected upperclass students are appointed to serve as Resident Assistants (RA's), who are assigned to each floor of every residence hall. Staff are available to resident students to guide and direct those having questions about University resources, services, and programs. In addition, Residence Hall staff and hall student governance councils sponsor social, cultural, recreational and educational event, and activities exclusively for resident students.

All undergraduate residence halls are fully air-conditioned and offer a variety of room configurations, ranging from traditional, two-person rooms to suite-style and apartment accommodations with private baths and kitchens. On a space available basis, single rooms may be available in North Quad residence halls for an additional fee. Student rooms are furnished with beds, desks, desk chair, closet storage, limited lighting, and window coverings. Most students augment University-provided furnishings with personal possessions to enhance bedroom/study room areas. Residence hall students are not permitted to have pets on campus.

Every residence hall student is provided with a voice mail box account. All South Quad residence hall rooms and Sisler-McFawn and Orr halls have cable television and ethernet capability. Each residence hall is equipped with coin-operated washers and dryers. All residence halls have study areas and lounges. Residential students may have automobiles and must purchase and display a University parking permit.

Proposed Room and Board Rates – 1998-99

Proposed residence hall room and board rates for 1998-99 are listed below. All rates quoted include room and board fees for the full academic year (vacation periods excluded). Freshmen are eligible for assignment to Orr, Gallucci, Ritchie, Brown Street, Sisler-McFawn and Spanton halls. If space is available, freshmen may be assigned to Grant Hall and Townhouses but only after all upperclassmen housing applications are processed.

RITCHIE / SPANTON

ROOM RATES	*BOARD PLAN*	*BOARD RATE*	*TOTAL PACKAGE*
2,790.00	**Any 10 meals**	1,620.00	4,410.00
2790.00	**19 Meal Plan**	1,760.00	4,550.00
2790.00	**Flex Plan**	1,760.00	4,550.00

BROWN STREET / GALLUCCI / SISLER-McFAWN

ROOM RATES	*BOARD PLAN*	*BOARD RATE*	*TOTAL PACKAGE*
3,070.00	**Any 10 meals**	1,620.00	4,690.00
3,070.00	**19 Meal Plan**	1,760.00	4,830.00
3,070.00	**Flex Plan**	1,760.00	4,830.00

GRANT / TOWNHOUSES / GARSON*

ROOM RATES	*BOARD PLAN*	*BOARD RATE*	*TOTAL PACKAGE*
3,440.00	**Any 10 meals**	1,620.00	5,060.00
3,440.00	**19 Meal Plan**	1,760.00	5,200.00
3,440.00	**Flex Plan**	1,760.00	5,200.00

* Garson Hall rooms are single occupancy. Please add single room premium fee to rates shown above. ($375 per semester - $750 annually)

For information on Residence Hall Refunds, please see the heading under Fees and Expenses in **Section 3** of this Bulletin.

Vacation Housing

Most University residence halls are closed for Thanksgiving break, Winter break, and Spring break. However, students anticipating the need for on campus housing during any or all of the academic year semester break periods should request assignment to Gallucci Hall, Grant Hall, Garson Hall, Orr Hall or Townhouses. The per night charge for vacation housing will be $10.00.

Summer Housing

Residence hall housing is available during summer sessions on a limited basis. As a guide, Summer 1998 room rates are: 5 week session = $340; 8 week session = $550; 10 week session = $690. Summer 1999 room rates will be determined by April 1, 1999. Residence hall dining service is not available during summer sessions, but food service is available at Gardner Student Center.

University Food Services

University Dining Services are available at several locations on campus (e.g., Robertson Dining Hall, Gardner Student Center, Gallucci Break Point, and Spanton Express). Robertson Dining Hall provides cafeteria-style food service for residence hall students and serves 19 meals each week. Residence hall students have a variety of meal plans from which to choose. Three meal plans are available to all students (Any-10 Meal Plan, 19 Meal Plan, or Flex Plan). The Flex Plan provides cash-value for food purchases at all campus eateries while the Any-10 and 19 Meal plans are assigned only to Robertson Dining Hall. All meal plans are designed to meet the needs of today's college student in terms of cost, flexibility and nutrition. Residence hall students must participate in a meal plan.

Residence Hall Program Board

The Residence Hall Program Board (RHPB) is a student-administered programming organization which provides a variety of social activities for residence hall students. The RHPB administratively includes four subcommittees (Major Events; Music and Comedy; Publicity; and Technical). RHPB sponsors an array of activities such as Welcome Weekend; Little Sibs Weekend; Hall Fest; dances; concerts; talent shows; movies, and trips to sports events. In 1997 and 1998, RHPB was named best program board in the nation by the National Association for Campus Activities.

Residence Hall Council (RHC)

The Residence Hall Council (RHC) serves as the student government for residence hall students. The purpose of RHC is to facilitate communication among students, faculty and administration; to provide programs and services for the residential student community; and to plan educational, cultural, and community service activities for residence hall students. The RHC consists of an executive committee and representatives from each residence hall. In addition, each residence hall has its own hall government responsible for supporting and enriching the residence hall environment and sponsoring programs and activities for residents.

University Residence Halls

Brown Street (men)	333 Brown Street
Gallucci Hall (coed)	200 E. Exchange Street
Garson Hall (coed)	282 Torrey Street
Grant Hall (coed)	151 Wheeler Street
Orr Hall (coed)	188 S. College Street
Ritchie Hall (women)	269 Buchtel Common
Sisler/McFawn (women)	211 E. Center Street
Spanton Hall (coed)	190 S. College Street
Townhouses (coed)	Sherman and Grant streets

Residence Hall Access

Access into University residence halls is restricted to student occupants, escorted guests, and authorized University personnel. Unescorted persons are not permitted in the residence halls at any time. Twenty-four (24) hour guest visitation is permitted in all residence halls. However, students may vote to restrict visitation hours if desired.

Except for Gallucci Hall, all residence halls are locked on a continuous basis. During weekdays, Gallucci Hall is locked between 11:00 pm and 8:00 am. In addition, most residence halls operate 24-hour reception areas. Beginning at 8:00 pm in all residence halls except Garson Hall and the Townhouses, guests must present identification as a requirement for building entry. Residents may enter at their own discretion but must also present identification when registering guests after 8:00 pm. Each resident has access to his or her own building and room with keys or access cards. The Residential Life staff receives specialized training from

University police on security and safety procedures and enforcement of residence hall regulations.

The Residence Life staff conduct educational programs for residents to heighten awareness of safety and security concerns. Sessions include topics from personal safety to sexual assault. The University police department provides a community police patrol in all residence halls during the evening and early morning hours.

SIXTY-PLUS (60+) PROGRAM

Sixty Plus (60+) students taking classes for audit are exempt from payment of tuition and general service fees. (State law 3345:27). However, Sixty Plus (60+) students are expected to pay for books, lab and instructional fees, and parking fees. (This tuition and general service fee exemption does not apply to non-credit Continuing Education courses.)

To be eligible for this program, a person must be 60 years of age or older and a resident of Ohio for at least one year. Under this program a person is entitled to audit up to three credit classes on a space-available-only basis. Space availability is determined after the degree-seeking students have registered. Sixty Plus registrations are held immediately before the start of each term, and participants must register in person.

For further information regarding course selection, guidance, and/or registration, contact the Adult Resource Center at (330) 972-7448.

STUDENT ASSISTANCE CENTER

The Student Assistance Center is designed to help students make the most of their opportunities at The University of Akron. The Center provides a place to find information, discuss ideas, do some planning, and get some support. Students can ask any question and expect to get information and help. In addition to these general services, the Center places special emphasis on:

- the needs of commuter students, both traditional age and adult learners, by offering mentoring programs, child care referral, directory of services, commuter coffee hours, and Ask Aunt Phoebe on-line information service.
- Evaluating Success Potential (ESP) program. Students respond to a questionnaire designed to identify strengths and weaknesses in seven broad areas related to being successful in college. Resources and referrals are provided for areas that need improvement.
- providing off-campus housing information.
- education concerning gender issues – preventing sexism, heterosexism, harassment, and acquaintance/date rape.
- services for students with disabilities through the Office of Services for Students with Disabilities.

For more information, contact the Student Assistance Center at (330) 972-5755. Visit the Center's web page at *http://www.uakron.edu/studentaffairs/SAC-MAIN.html*, or visit Aunt Phoebe at *http://www.uakron.edu/studentaffairs/phoebe/*.

Services for Students with Disabilities

The Office of Services for Students with Disabilities is part of the Student Assistance Center in the Division of Student Affairs. The primary mission of this office is to ensure that qualified students are afforded the opportunity for full participation in all University academic programs, activities and services.

According to provisions outlined in Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act, institutions of higher education which receive federal funding are prohibited from discriminating against "otherwise qualified" individuals with disabilities.

If a student has a specific disability, he or she should contact the Office of Services for Students with Disabilities, Spicer Hall 124, (330) 972-7928 (Voice), or (330) 972-5764 (TDD).

STUDENT FINANCIAL AID

This office serves students who may need financial assistance to attend the University. Seven professional staff members provide information on available aid programs.

A detailed statement regarding all financial assistance programs can be found in **Section 3** of this Bulletin.

STUDENT HEALTH SERVICES

Health services are available to all students enrolled at The University of Akron. Health Services is located in Robertson Dining Hall, immediately adjacent to the North Quad residence halls. This facility is capable of handling minor acute injuries and episodic illnesses. Student Health Services is open from 8:00 a.m. to 6:00 p.m., Monday through Thursday, and from 8:00 a.m. to 5:00 p.m. on Friday.

The student who becomes seriously ill or suffers a serious injury on campus should be taken to an emergency ward of one of the local hospitals without delay. Those persons present in this kind of emergency should call University Police or 911 immediately. The University assumes no legal responsibility or obligation for the expenses of such transportation or for medical services at the hospital.

Student Health and Accident Insurance, designed specifically for students, is required of all residence hall students and all international students except those who present proof of similar coverage. Other students may purchase this insurance at the annual individual rate. The student insurance provides coverage for such items as hospitalization, surgical benefits, and in-hospital medical benefits.

Completed health forms and other health-related records are treated as confidential and are kept in the Student Health Services offices.

STUDENT DEVELOPMENT

Student Development is concerned with each student's University experience outside the classroom, providing a wide range of programs, activities, resources, and professional assistance to afford students a full collegiate experience and to encourage their involvement in campus organizations and activities. Student Development serves as the central coordination point for major traditional campus events such as May Day, Parents'/Family Day, the Diversity Fest Celebration, The Leadership Academy, and the All Campus Recognition Dinner. In addition, Student Development coordinates the registration, funding, and development of 210 student organizations. The Student Development office, located in Gardner Student Center 104, has current information about registered student groups, fraternities and sororities, as well as current procedures for student organizations and the process for registering new groups. In addition, the office advises registered student groups about planning programs, promoting events, recruiting and retaining members, managing budgets, and many other organizational skill areas.

The Student Development staff assists as advisers to Interfraternity Council, Panhellenic Council, Greek Programming Committee, and Associated Student Government.

Student Conduct

The University of Akron has the responsibility to protect the rights, health and safety of our academic community to ensure that members of our community may pursue their educational goals without undue interference. The goal is bring about outcomes that are positive for all parties involved. To this end, you are expected to familiarize yourself with the identified standards for appropriate behavior and scholarship whenever on or affecting persons or property owned, leased or operated by The University of Akron. The development and enforcement of standards of conduct for students is an educational endeavor which fosters students' personal and social development. You are expected to abide by applicable federal, state, and local laws and may be held accountable for any violations in which you are involved. The Office of Student Conduct is the agent that receives and investigates complaints that allege violations of the University's Student Code of Conduct. Confidentiality is maintained and records of proceedings are released only on written authorization of the student involved. All hearings are fundamentally fair and respect the rights of the individuals involved. By becoming familiar with the definition of student misconduct contained herein, students can be fully aware of their rights and responsibilities as a student at The University of Akron and have a successful, rewarding experience

Definition of Student Misconduct

The University of Akron defines student misconduct as behavior on or affecting persons or property owned, leased, or operated by the University, that violates codified or explicitly stated University rules and regulations. Minor penalties may be assessed informally under prescribed procedures*, but the types of misconduct described below may result in the penalties of formal disciplinary probation, suspension, or dismissal. Student misconduct includes:

A. Plagiarism, cheating, or other forms of academic dishonesty.

B. Furnishing false or misleading information to University officials or on official University records, or altering or tampering with such record.

C. Detaining, holding, intimidating, injuring or threatening injury or threatening to injure or coerce by bodily harm any person lawfully upon property owned, leased, or operated by the University or in housing occupied or used by recognized University student groups.

D. Theft, malicious destruction, damage or injury to property not his own.

E. Appropriating for his own use property not his own without the consent of the owner or person legally responsible for it.

F. Possession, use or distribution or marijuana or any narcotic, hallucinogenic, or other drug in either the refined or crude form which is prohibited by law.

G. Unauthorized consumption, possession, or distribution of alcoholic beverages.

H. Gambling or games of chance as defined in the Revised Code of the State of Ohio and ordinances of the City of Akron.

I. Illegal or unauthorized possession or use of firearms, explosives, or other weapons.

J. Offenses defined as felonies or misdemeanors under the Revised Code of the State of Ohio and ordinances of the City of Akron.

K. Unauthorized entry into, or use of, University facilities.

L. Active or passive, willful or deliberate obstruction, disruption, or occupation of building entrances, walks, stairways, passageways, approaches, classrooms, offices, parking areas, auxiliary rooms (power, telephone, etc.), or any other space that impedes implementation of authorized programs and functions of the University.

M. Violation of University regulations prohibiting dogs, other animals, fowl, or reptiles on property owned, leased, or operated by The University of Akron.

N. Unauthorized copying of an assignment in computer programming, unauthorized examination or view of the computer accounts for unauthorized purposes, engaging in disruptive, mischievous behavior on the computer, or any other wrongful use of a computer.

O. Doing any act or coercing another, including the victim, to do any act of initiation into any student or other organization that causes or creates a substantial risk of causing mental or physical harm to any person.

P. Failure to comply with directions of University administrative officers and police, or any other governmental law enforcement officers upholding University ions, or faculty within the purview of their authority when carrying out their normal duties.

* Procedure for Assessment of Minor Penalties Relative to Minor Incidents of Academic Misconduct.

A student alleged to have committed a minor incident of academic misconduct may, if the student so desires, have the matter resolved and minor penalty assessed in confidential session with the respective faculty member and department head. The resolution thereof and minor penalty assessment shall, if agreed upon, be reduced to writing and executed by the student and department head in which the course was offered. However, in the event the student disagrees or the faculty member or department head do not concur with informal resolution or minor penalty, then the matter shall be resolved in accordance with the regular student disciplinary procedures.

Students are advised to become aware of the disciplinary procedures published in the University Rules and Regulations Concerning Campus Conduct and Student Discipline Procedures (Student Code of Conduct). The Student Code of Conduct can also be accessed by visiting www.uakron.edu/studdev or visiting the Office of Student Conduct, Gardner Student Center 104 for your free copy. For more information regarding the Student Code of Conduct, please contact the Office of Student Conduct at (330) 972-7021.

Campus Safety and Security Information

SAFETY AND SECURITY

This information is provided as part of The University of Akron's commitment to safety and security on campus and is in compliance with the Federal Crime Awareness and Campus Security Act of 1990.

THE CAMPUS

The University employs many people to keep the campus safe and secure. The Division of Public Safety provides for student and employee safety and security through the departments of University Police and Environmental and Occupational Health and Safety. The Division of Student Affairs is responsible for security and safety policies governing residence halls, fraternities, and sororities and for teaching students about security and crime prevention.

It is the intent of the University to continue and enhance current safety and security education and awareness programs throughout the year. The purpose of these programs is to assure that the campus community frequently receives information and instruction on University crime and safety policies and procedures, and on drug and alcohol control and prevention.

A safe campus can be achieved only with the cooperation of the entire campus community. The University hopes students will read and become familiar with this material and be responsible for their own safety and the security of others.

UNIVERSITY POLICE

Campus law enforcement is primarily the responsibility of The University of Akron Department of Police. University police provide 24-hour-a-day patrol protection to the campus, parking lots, residence halls, and on-campus fraternity and sorority houses. The police station is located in the Physical Facilities Operation Center at the corner of Hill and South Forge streets and is staffed 24 hours a day by full-time dispatchers.

The University's 32 police officers are commissioned by the State of Ohio with full law enforcement authority and responsibilities identical to the local police or sheriff. The UA Police Department works closely with the Akron Police Department and other law enforcement agencies. Reports are exchanged every business day so that both agencies receive pertinent information. Information is shared through personal contacts and by phone and radio. University and City of Akron police regularly work together at large campus events such as athletic competitions and dances.

UA Police officers have met or exceeded the training standards of the Ohio Peace Officers Training Council. They also receive ongoing in-service and specialized training in first aid, CPR, firearms, defensive tactics, legal updates, and other skills.

UA Police officers enforce laws regulating underage drinking, the use of controlled substances, weapons, and all other incidents requiring police assistance. They also are responsible for public safety services such as crime reports, medical emergencies, fire emergencies, and traffic accidents.

It is the goal of every member of the University Police Department to promote, preserve, and deliver feelings of safety and security through quality services to the members of the University community.

DRUG AND ALCOHOL PREVENTION

The issue of drug and alcohol abuse concerns the entire University community as well as our surrounding neighborhoods. The federal Drug Free Schools and Communities Act Amendments of 1989 require schools, colleges, and universities receiving federal financial assistance to implement and enforce drug and alcohol prevention programs for students and employees.

The University of Akron prohibits the illegal use, possession, sale, manufacture, or distribution of drugs and alcohol by all students and employees on University premises or as part of any University activity. Any misuse of substances by University students and employees that presents physical or psychological hazard to individuals also is prohibited.

It is the responsibility of The University of Akron to adopt and implement a drug prevention program for its students and employees. The University as an institution, and each of us as individuals, must eliminate the use of illicit drugs and alcohol that contribute to the unrecoverable loss of time, talent, and lives.

In accordance with the Drug Free Schools and Communities Act Amendment of 1989, The University of Akron established the Chemical Abuse Resource Education (C.A.R.E.) Center. The C.A.R.E. Center is funded in part by the Fund for Post Secondary Education, U.S. Department of Education. To receive resource, speaker and or program information, call 972-5653 or stop by Gardner Student Center 210.

CRIME PREVENTION

Through the Office of Crime Prevention, University police officers provide educational programs to students and employees on personal safety, sexual assault/acquaintance rape prevention, drug and alcohol abuse prevention, and related topics. The University Police Department welcomes the chance to talk with any campus group. Candid dialogue between UA Police and the public has created greater confidence in the community to report unlawful activities.

Potential illegal actions and on-campus emergencies can be confidentially reported by any student, faculty, or staff member. Complaints received by UA police which fall outside their jurisdiction will be referred to the appropriate agency, or the complainant will be provided a phone number where the complaint can be filed. Likewise, other agencies refer complaints to University Police when appropriate.

Police officers patrol parking lots from 24 hours each day. UA police also offer assistance to motorists with battery jumps, inflating tires, unlocking vehicles, and obtaining fuel for a small fee.

To request nonemergency assistance, call extension 7123. To schedule an appointment for an educational program, call extension 5908.

For emergencies, dial 911 from any campus telephone.

Student Campus Patrol

A student escort service operates 5 p.m. to 1 a.m. seven days a week for the safety of anyone walking alone on campus during the evenings. By calling extension 7263, an escort will come to the student's location and accompany him/her to any campus building or parking lot.

Employed and trained by The University of Akron Police Department, the campus patrol teams are easily identified by labeled navy blue jackets, or royal blue t-shirts. These teams assist the University police in patrolling campus parking lots and other campus areas and report suspicious individuals or activities directly to the police dispatch center.

Emergency Phones

Yellow or red emergency phones are directly connected to the UA Police Department. These phones are strategically located throughout campus pedestrian walkways and inside parking decks. Police respond to the lifting of any emergency phone receiver, even if no words are spoken.

Outdoor security phones are at the main entrances of all campus residence halls. UA Police and other campus numbers can be dialed on these phones.

If using an off-campus phone, dial 972 before the campus extension.

Emergency Phone Numbers

Call extension 911 on campus to reach UA police immediately.

Police.....7123
Campus Patrol.....7263
(Police Nonemergency).....8123
Environmental and Occupational Health and Safety.....6866
Fire.....**911**
EMS/Medical.....**911**
Electrical/Plumbing.....7415
Hazardous Materials.....8123
Closing Information.....7111

These emergency numbers are monitored 24 hours a day. If calling from an off-campus phone, dial 972 and then the four-digit number you wish to reach. Use 911 for emergencies when dialing from all campus extensions.

Campus Buildings

Most University academic facilities are open to the public from 7 a.m. until the latest evening classes let out. Administrative buildings are generally locked at 6 p.m. When the University is closed, all buildings are locked and may be opened only by authorized personnel.

Health and Safety

Members of the Department of Environmental and Occupational Health and Safety routinely inspect the campus for environmental and safety concerns. The Department of Physical Facilities maintains University buildings and grounds and regularly inspects facilities and promptly makes repairs to ensure safety and security. University Police work with both units to respond to reports of potential safety and security hazards, such as broken windows and locks. UA police also work with physical facilities personnel to help maintain adequate exterior lighting and safe landscaping practices.

Personal Responsibility

The cooperation and involvement of students, faculty, and staff in any campus safety program is absolutely necessary. All must assume responsibility for their own safety and security of their property by following simple, common sense precautions. For example, although the campus is well-lighted, everyone should confine their movements to well-traveled areas. There is safety in numbers, and everyone should walk with a companion or with a group at night. Valuables should be marked with a personal identification number in case of loss or theft. Bicycles should be properly secured when not in use. Automobiles should be locked at all times. Valuables and purses should never be lying in view in a car but locked in the car trunk for safekeeping.

Crime Statistics

The University of Akron Police Department prepares monthly statistics for the Federal Bureau of Investigation under the Uniform Crime Reporting (UCR) program. The serial numbers of property stolen on campus are reported nationwide through the National Crime Information Center. A LEADS computer terminal at the police station dispatch center allows information to be exchanged with law enforcement agencies across the United States and Canada.

The following statistics are from the University Uniform Crime Reports of the past five calendar years. The statistics under Off-campus (O.C.) are crimes reported to the City of Akron Police Department that occurred at University properties off campus. **NOTE:** *Off-campus statistics previous to 1996 reflect all activity in areas surrounding the University, including incidents not directly related to University functions.*

NUMBER OF REPORTS

CRIME	93	O.C. 93	94	O.C. 94	95	O.C. 95	96	O.C. 96	97	O.C. 97
Homicide	0	0	0	0	0	0	0	0	0	0
Rapes	0	0	2	0	4	15	3	11	5	7
Robbery	7	1	2	0	3	41	4	37	6	19
Aggravated Assault	6	5	1	0	8	21	3	5	0	12
Burglary										
Forcible Entry	11	0	10	0	3	126	3	113	2	130
Unlawful Entry (no force)	8	0	11	0	1	42	7	37	15	33
Attempted Forcible Entry	7	0	3	0	1	2	1	2	0	4
Burglary Total	26	5	24	0	5	170	11	152	17	167
Theft										
Under $50	17	1	15	0	139	NA	125	NA	211	178
$50 to $200	18	3	18	0	146	NA	136	NA	138	124
$200 and Over	16	5	18	0	150	NA	169	NA	110	122
Theft Total	51	9	51	0	435	NA	430	NA	459	424
Motor Vehicle Theft	18	1	28	0	13	5	8	6	8	71
Arson	12	0	1	0	1	11	2	2	1	6

NUMBER OF ARRESTS

CRIME	93	O.C. 93	94	O.C. 94	95	O.C. 95	96	O.C. 96	97	O.C. 97
Liquor Law Violations	64	54	32	54	55	NA	89	NA	150	14
Drug Abuse Violations	6	0	15	1	9	NA	22	NA	80	32
Weapons Possession	2	0	3	4	1	NA	3	NA	3	0

Cocurricular Activities and Other Services

The variety of experiences gained through involvement in cocurricular and social activities during students' college years contribute to a more well-rounded University education beyond the classroom. Cocurriculars are those activities that allow students the opportunity to develop emotionally, physically, politically, academically, socially, and spiritually, and include intercollegiate and intramural sports, student publications, honor societies, departmental organizations, special interest groups, university-wide programming committees, student government, and liberal arts activities. Participation in cocurricular activities provides students with an opportunity to meet new acquaintances, network with professional contacts, broaden the classroom experience, and develop marketable leadership skills for a career search. Studies show that involved students have a higher rate of retention.

Eligibility in the 200-plus registered student organizations and other cocurricular activities is dependent on the student's maintenance of academic good standing at the University. Some selective organizations such as honoraries and varsity athletics require special eligibility criteria.

PERFORMING ARTS

Opportunities are abundant for students to develop the ability to face the public through such live audience performances as plays, debates, recitals, and dance, as well as media presentations through radio, television, and film.

A student who aspires to act, write, or produce in theatre is encouraged to attend auditions and to apply for technical positions. The experimental theatre in Guzzetta Hall is distinguished by its flexible design. The University Theatre in Kolbe Hall, with its intimate proscenium stage, is the scene for many University productions.

Those interested in mass media communication will find that Kolbe Hall contains fully equipped television and radio studios. A student may participate in the operation and broadcast of public radio station, WZIP (88.1 FM).

A University student interested in music may audition for membership in the Marching Band, Concert Choirs, Jazz Ensembles, Concert Band, the Symphonic Band, Musical Theatre and Opera productions, orchestra, or any number of small or specialized musical ensembles or clubs.

An additional opportunity in the area of performing arts is offered through dance, in the form of the Repertory Dance Company, which works closely with the world-renowned Ohio Ballet.

ATHLETICS

The University of Akron believes that intercollegiate athletics are an important and wholesome adjunct to the principal mission of the University, enhancing the physical well-being and health of its students and providing an opportunity to broaden their intellectual and social development. Accordingly, programs of both intercollegiate and intramural sports are provided. Participants in either program must be, first and foremost, full-time students whose fundamental aim is to obtain a sound education.

The University of Akron currently competes as a member of the Mid-American Conference in 17 NCAA DIvision I intercollegiate sports. The three athletic seasons include: Fall– football, men's soccer, men's and women's cross country, and women's volleyball; Winter–men's and women's basketball, men's and women's indoor track, women's swimming and diving, and rifle; Spring–women's fast-pitch softball, baseball, men's golf, women's tennis, and men's and women's outdoor track. The athletic program actively seeks participants from the campus population and annually attracts some 350 students for participation in the intercollegiate sports. Likewise the athletic department selects each spring a cheerleader squad and dance team from the campus community and incoming high school seniors.

Intercollegiate athletic programs enhance the educational opportunities of the students who participate in those activities. The men and women who are involved in intercollegiate athletic programs at The University of Akron are expected to maintain the academic standards required of all students at the University and adhere to applicable NCAA and Mid-American Conference regulations.

Students are admitted free to all regular season home intercollegiate contests with a validated I.D. Likewise, students who wish to work for the promotion of intercollegiate athletics on campus are urged to join the student sports committee (Zip Athletic Promoters).

Further educational opportunities in athletics can be pursued through the Director of Athletics Office, JAR 183, (330) 972-7080.

STUDENT PUBLICATIONS

The Buchtelite is a student newspaper issued twice weekly during the academic year. It serves as the campus "voice" with news stories, interest columns, and photographs revolving around campus events. Copies of each edition are distributed to students free of charge at various campus locations. Students interested in becoming a member of the *Buchtelite* staff should visit the office located in Gardner Student Center, third floor.

The *Tel-Buch* is the University's yearbook with comprehensive editorial and photographic coverage of student life at The University of Akron. This impressive publication is free to students in attendance during the school year that the yearbook summarizes. The *Tel-Buch* office is located in the lower level of Gardner Student Center.

Akros Review is a literary journal of creative writing and art work primarily by students of The University of Akron and secondarily by artists and writers in the Northeast Ohio area.

DEPARTMENTAL ORGANIZATIONS

Academic departments sponsor organizations that provide social and educational programs and activities in special fields of study so that students may enhance and expand their knowledge of their academic field outside of the classroom. Guest speakers, community service projects, and career nights are often included in the calendar of programs. Joining a departmental organization allows students the opportunity to meet classmates with similar interests, to develop study groups, to network with the professional world, and to build a strong academic foundation for future career paths.

ASSOCIATED STUDENT GOVERNMENT

The Associated Student Government (ASG), the representative government for undergraduate students, provides services and forums to address student needs, participates in University governance, and decides budgetary allocations to undergraduate student groups. The ASG holds general elections in mid-March of each year to decide the student leadership for the following academic year. Student Government works to assess and fulfill the special needs of students, including Disabilities Awareness Week, Town Hall meetings, free tax services, issue forums and co-sponsorship of campus lectures. Freshmen can also become involved as a Freshman Senator through elections that occur in September. At the All Campus Recognition Dinner in April, ASG recognizes outstanding achievement by awarding Who's Who and A-Key awards. The ASG office is located in Gardner Student Center 127, (330) 972-7002, *http://www.uakron.edu/studdev.*

GREEK AFFAIRS

Greek Life at The University of Akron is as unique as the college experience itself. The Office of Greek Affairs assists 25 registered fraternities and sororities with a common founding principle of friendship, scholarship, leadership, and community service. Students may become involved by serving as president of an organization, playing intramural sports, participating in a leadership conference, sponsoring an alumni event, coordinating a fundraising project to benefit a local charity, tutoring disadvantaged children, or attending a social function or a Zip game. The opportunities for meaningful campus and community involvement in the Greek community are endless. Members of the Greek community are the most active segment of the student population. From this involvement, each student learns new skills and experiences personal growth and development. Studies have shown that members of Greek organizations have a higher rate of graduation and remain more active as loyal UA alumni than those who choose not to join fraternities and sororities. The Office of Greek Affairs is located in Gardner Student Center 210, (330) 972-7909. Web address: *http://www.uakron.edu/studdev*

UNIVERSITY PROGRAM BOARD

University Program Board (UPB) is the all-campus activities board responsible for providing educational, recreational, social, and musical events for the campus community. The Leadership Council has 10 student positions, including four officers and six program coordinators. Council positions are selected every April. Membership is open to any student interested in developing organizational, leadership, and management skills. Programs include College Bowl Campus Tournament, Children's Holiday on Campus, Homecoming Celebration and Forum Series Speaker. The UPB office is located in the lower level of Gardner Student Center, (330) 972-7014.

DIVERSITY OPPORTUNITIES

The University of Akron is a diverse community of students representing more than 80 countries. As such, we are provided with a unique opportunity to celebrate this diversity through multicultural programming, international celebrations, and sensitivity seminars. The Student Development office provides the Diversity Fest Celebration celebrating the food, dance, music, customs, and talents of our students. The Diversity Committee programs the annual Martin Luther King, Jr. Day Celebration during the observed holiday and works to provide sensitivity seminars throughout the year. In addition, the Cultural Diversity Committee of University Program Board presents a multitude of diverse talents and addresses issues through human and civil rights lectures, and entertainers from every walk of life. Greek students address topics of college life during Collegiate Issues month and Associated Student Government's Minority Affairs Commission offers opportunities for confronting these issues.

A number of campus departments such as the Black Cultural Center, the Office of International Programs, Peer Consultants, Minority Affairs, and the campus-wide Diversity Council attend to supporting the value of diversity programming and multicultural awareness. For more information about specific programs, consult the Directory for these mentioned departments.

CENTER FOR CHILD DEVELOPMENT

The University of Akron Center for Child Development provides a variety of early childhood programs which are open to students, faculty, staff, and the community. Each classroom is staffed with a Pre-K certified teacher and student aides. Opportunities are provided for the children to engage in developmentally appropriate activities in the following areas: creative art, language arts, music and rhythms, science exploration, gross motor and fine motor development, socio-dramatic play, multi-sensory activities, and computer experience. The program emphasizes the development of a positive self concept through an anti-bias curriculum.

The Center for Child Development is open during the Fall and Spring semesters of the academic year between 7:30 a.m. and 6:00 p.m. Monday through Friday. The program offers hourly flextime and half-day programs for children three to five years old and toilet trained. Full-day sessions are available year round for children two-and-a-half to five years old and toilet trained.

A summer pre-school flextime program is offered Summer Session I.

A summer program is also offered for school-aged children. This program is offered during Summer Sessions I and II from 7:00 until 6:00 p.m.

For more information call the Center for Child Development, (330) 972-8210.

INTERFAITH COUNCIL OF MINISTRIES

The **Baptist Student Union** (BSU) is open to all students of various denominational backgrounds. A few of the opportunities available are Bible studies, community outreach service projects, socials, retreats, mission trips, and interaction with students around the country. For more information, call (330) 794-6734 or see faculty advisor Dr. Ken Moore.

Campus Focus is the campus ministry of The Chapel, a non-denominational evangelical church. The purpose of Campus Focus is to help students develop their relationship with God; encourage students to be active in campus life and in the lives of others students.; and provide opportunities for them to connect with other Christians. The Gathering Place occurs on Sundays at 10:40 a.m. at The Chapel, located at the corner of Fir Hill and Buchtel. Also available on a weekly basis are small group bible studies, Sports Focus, and That Wednesday Prayer Thing. Call (330) 376-6400, ext. 3330, for more information.

The **Greek Orthodox Church** provides a campus priest to students through The Greek Orthodox Church of the Annunciation at 129 South Union Street, (330) 434-0000.

Hillel Jewish Students Union is a pluralistic community and is open to all students who are interested in enriching their lives Jewishly. The organization provides multiple services including religious celebrations, social activities, as well as educational and cultural events, both on and off campus. Hillel has a close relationship with the Jewish Law Students Association, the Jewish Community Center, and the local synagogues (Reform, Conservative and Orthodox). Call (330) 678-0397 for more information, or visit the Hillel office, office #10, in the basement of the Gardner Student Center.

InterVarsity Christian Fellowship is an inter-denominational, student-led organization that is not formally affiliated with any denomination, but welcomes all students. The purpose of InterVarsity is to establish and advance witnessing communities of students and faculty who follow Jesus as Savior and Lord, growing in love for God, God's Word, God's people of every ethnicity and culture and God's purpose in the world. We provide weekly biblical teaching, prayer meetings, worship, fellowship, and ministry opportunities. For more information call (330) 972-8007.

Newman Catholic Campus Ministry emerges from the Roman Catholic tradition and is open to all students who are interested in sharing in a Catholic community. We offer opportunities for individual and community spiritual development, personal leadership formation, and education for justice and community service. The Akron Newman Center is located at 44 University Avenue (top floor of St. Bernard's Ministry Offices). For information, call (330) 376-3585.

University Christian Connections is your ecumenical campus ministry supported by nine denominations and affiliated local churches offering a ministry of care, encouragement, nurture and guidance. The ministry provides personal and spiritual counseling, sponsors on-campus workshop opportunities, facilitates discussions reflecting values and spiritual journey, supports other campus ministry programs, and serves as the connection between students and local churches. Fellowship grants are available to students serving in ministries of local churches and missions.

University Christian Connections is supported by American Baptist, Catholic, Christian (Disciples), Church of the Brethren, Episcopal, Evangelical Lutheran, Presbyterian (USA), United Church of Christ, and United Methodist churches. The Rev. Bob Dreese serves as chaplain and may be reached at any time at (330) 849-2514.

DIRECTORY OF STUDENT ORGANIZATIONS

May 1998

Honoraries

Alpha Kappa Delta (sociology)
Alpha Sigma Lambda (non-traditional scholastic)
Beta Alpha Psi (accounting)
Beta Beta Beta (biology)
Beta Gamma Sigma (business)
Chi Sigma Iota Alpha Upsilon (counseling)
Golden Key National Honor Society
Honors Club (Honors Program)
Kappa Omicron Nu (home economics)
Mortar Board (leadership/scholastic)
National Residence Hall Honorary
Omicron Delta Epsilon (economics)
Omicron Delta Kappa (leadership/scholastic)
Order of Omega (interfraternity)
Phi Alpha Theta (history)
Phi Eta Sigma (freshmen scholastic)
Phi Theta Kappa (Community & Technical College)
Pi Delta Phi (French)
Pi Mu Epsilon (mathematics)
Pi Sigma Alpha (political science)
Psi Chi (psychology)
Rho Lambda (panhellenic)
Sigma Delta Pi (spanish)
Sigma Iota Epsilon (management)
Tau Alpha Pi (engineering & science technology)
Tau Beta Pi (engineering)
Tau Beta Sigma (band)

Professional

American Chemical Society Student Affilitates
American Institute of Aeronautics & Astronautics
American Institute of Chemical Engineers
American Society of Civil Engineers
American Society of Mechanical Engineers
American Society for Training and Development (ASTD)
Association of Women in Communications
Biomedical Engineering Society
Criminal Justice Association
Delta Sigma Pi
Environmental Professionals Implementing Change (EPIC)
Financial Management Association
Graduate Business Student Association
Graduate Nursing Student Organization
Institute of Management Accountants
National Society of Black Engineers
Ohio Collegiate Music Educators Association (OCMEA)
Phi Alpha Delta Law Fraternity
Phi Delta Phi
Pi Sigma Epsilon
Polymer Science Student Organization
Public Relations Student Society of America
Society for Human Resource Management
Society of Plastics Engineers
Student Fashion Association

Publications

Akros Review
The Buchtelite
Tel-Buch

Special Interests

Akron Volleyball Club
Alpine Ski Team
Amateur Radio Club
Ambassadors
Aquatics Club
BACCHUS and GAMMA
Badminton Club
Ballroom Dance Club
Black United Students
Campus Habitat for Humanity
Circle K
Critical Thinkers Club
Gospel Choir
Green Dragon Kung-Fu Club
Guitar Club
Isshinryu Karate Club
Karate/Judo/Taekwondo Club
Lacrosse Club
Lesbian/Gay/Bisexual Union
Minority Graduate Student Council
N.A.A.C.P.
Northeastern Ohio Clarinet Association
Northeastern Ohio Flute Association
Outdoor Adventure Club
Pre-Law Club
Senior Class Board
Ski Club
Snowboard Club
Speech and Debate Team
Sports and Entertainment Law Society
Student Health Advisory Committee
Students Celebrating Cultural Diversity
Students in Free Enterprise
Students Promoting Campus Recreational Facilities
University Chess Club
University Gaming Society
WomynCircle
Zip Recruiting Club

Non-Traditional

Alpha Sigma Lambda (scholastic honorary)

Graduate

Chi Sigma Iota-Alpha Upsilon
Counseling Psychology Graduate Student Organization
Graduate Business Student Association
Graduate Nursing Student Organization
Graduate Student Government
Industrial/Organizational Psychology Graduate Students
Minority Graduate Student Council
Polymer Science Student Organization
Public Administration and Urban Studies Student Association
Society of Plastics Engineers
Student Association for Graduates in Education (SAGE)

Law

Asian Latino Law Students Association
Association of Trial Lawyers of America
Black Law Students Association
Environmental Law Society
Health Law Society
Intellectual Property and Technology Association
International Law Society
Jewish Law Students Association
Law Association for Women
National Association of Criminal Defense Lawyers
Phi Alpha Delta Law Fraternity
Phi Delta Phi
Sports and Entertainment Law Society
Student Bar Association

Religious

Akron Chinese Christian Fellowship
Athletes in Action
Baptist Student Union
Campus Focus
Christian Zips
End Time Ministry
Hillel Jewish Students Union
Intervarsity Christian Fellowship
Muslim Students Association
Newman Catholic Community
University Christian Connection

Political

College Republicans
University Democrats

Military

Arnold Air Society
Association of the U.S. Army
National Society of Pershing Rifles
Rangers
Sabre Drill Team

Programming

Residence Hall Program Board
University Program Board

International

Chinese Student Association (Taiwan)
Chinese Student & Scholar Association
Hellenic Club
Hispanos Organizados por Lengua y Amistad (HOLA)
Indian Students Association
International Students Club
Irish & Scottish Students Organization
Italian Club
Lebanese Student Club
Thai Students Organization
Turkish & American Student Association

Governing Bodies

Associated Student Government
Black Greek Council
Graduate Student Government
Interfraternity Council
Panhellenic Council
Residence Hall Council
Student Bar Association

Social Fraternities

Alpha Phi Alpha
Delta Tau Delta
Iota Phi Theta
Kappa Alpha Psi
Lambda Chi Alpha
Lone Star
Phi Beta Sigma
Phi Delta Theta

Social Fraternities, cont.

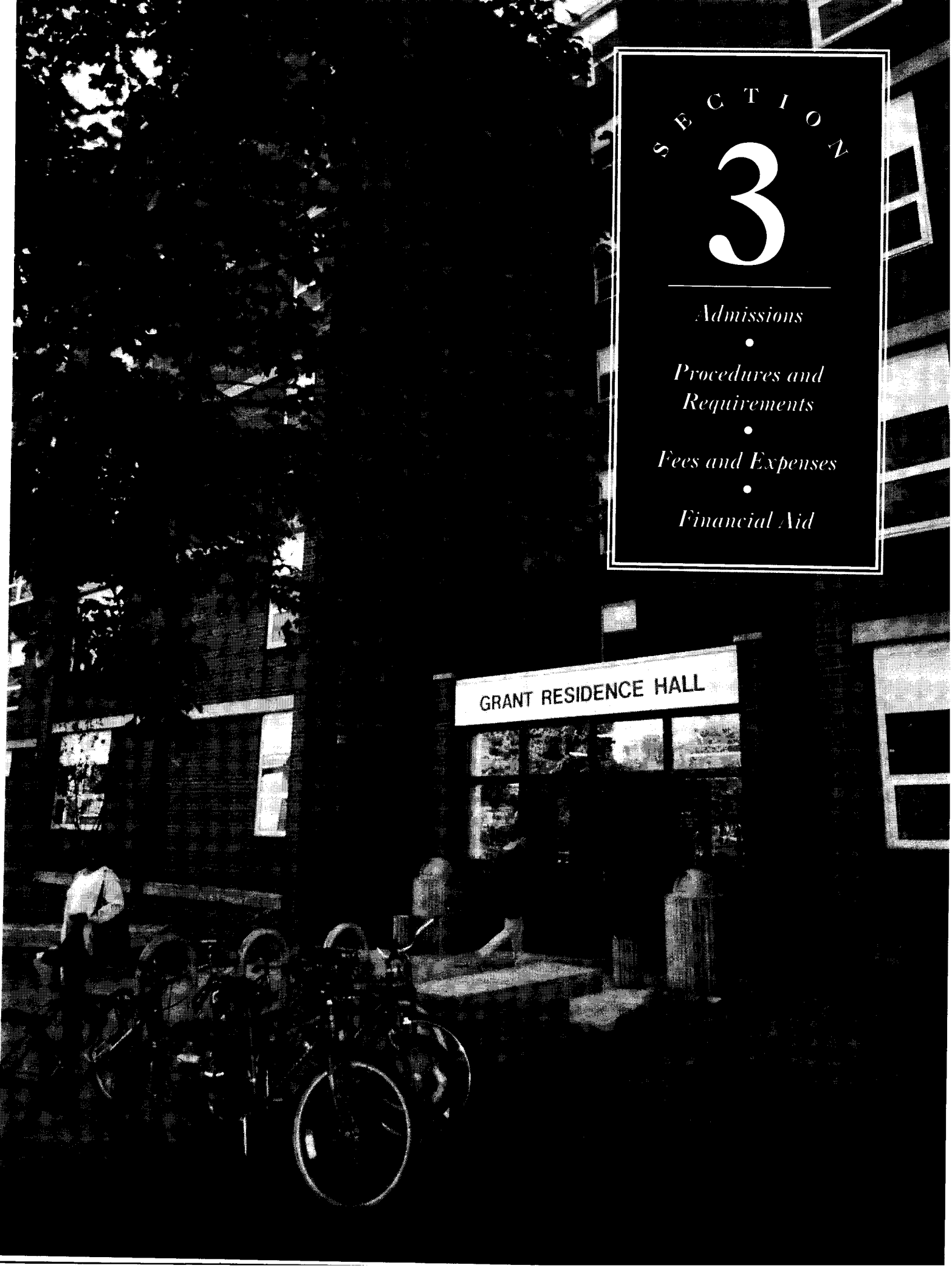
Phi Gamma Delta
Phi Kappa Tau
Phi Sigma Kappa
Sigma Alpha Epsilon
Sigma Nu
Sigma Pi
Sigma Tau Gamma
Tau Kappa Epsilon
Theta Chi

Social Sororities

Alpha Delta Pi
Alpha Gamma Delta
Alpha Kappa Alpha
Alpha Phi
Delta Gamma
Delta Sigma Theta
Kappa Kappa Gamma
Sigma Gamma Rho

Departmental

Accounting Association
Ad Akron Advertising Club
Akron Council of Education Students (ACES)
American Society of Interior Designers
Anthropology Club
Biology Club
Black Education Students
Business Professionals of America
Collegiate Nursing Club
Collegiate Secretaries International
Computer Science Club
Counseling Psychology Graduate Student Organization
Dean's Advisory Council
Economics Club
Engineering Student Council
Fire Protection Society
Future Physicians Club
Gathering of Potential Surveyors
Geography and Planning Organization
Geology Club
Gerontology Association
Hospitality Club
Industrial/Organizational Psychology Graduate Students
Institute of Electrical & Electronics Engineers
Institute of Transportation Engineers
International Business Association
International Law Society
Kappa Kappa Psi
League of Black Communicators
Literary Guild
Math Club
Minority Business Students Association
Minority Student Nurses Association
National Association of Black Accountants
Organization for Children's Health Care
Philosophy Club
Psychology Club
Society of Automotive Engineers
Society of Physics Students
Society of Students in Construction
Society of Women Engineers
Sociology Club
Student Art League
Student Council for Exceptional Children
Student Dietetic Association
Student Social Work League
Student Toastmasters
Tau Beta Sigma
Terpsichore Dance Club
Theatre Guild



SECTION

3

Admissions

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Procedures and Requirements

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Fees and Expenses

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Financial Aid

Admissions

Admission is necessarily limited by the University's capacity to provide for the student's educational objectives. The University reserves the right to approve admission only to those whose ability, attitude,and character promise satisfactory achievement of University objectives. Special consideration for admissions and housing may be given to those applicants who provide The University of Akron with cultural, racial, economic, and geographic diversity, who possess outstanding talents, or whose previous academic performance may have been affected by physical, mental, or learning environment factors.

CLASSIFICATION OF STUDENTS

The University of Akron classifies its students according to their needs, educational background, goals, and abilities. Classifications include:

- **Undergraduate** - A student who has not earned the baccalaureate degree and is eligible to enroll in undergraduate-level credit courses.
- **Postbaccalaureate** - A student who holds the baccalaureate degree from an accredited institution, who is eligible to enroll in credit courses on the undergraduate level, and who has not been admitted to the Graduate School. A postbaccalaureate student applies for admission to the college (arts and sciences, education, etc.) where undergraduate credit is to be earned.
- **Graduate** - A student who holds the baccalaureate degree from an accredited institution, has been admitted to the Graduate School, and is eligible to enroll in graduate-level credit courses.
- **Professional** - A student who holds the baccalaureate degree from an accredited institution and has been admitted to the School of Law.
- **Special Student** - A student who does not meet the regular admissions requirement but qualifies by certain abilities or maturity and is admitted after special petition.
- **Auditor** - A student who wishes to enroll in a course without obtaining a grade-point value ("A-F") or a grade of noncredit or credit. Such students must indicate that they are auditors at the time of registration. Audit status may be denied if space is not available. An auditor is expected to do all prescribed coursework except the writing of examinations.
- **Post-Secondary Enrollment Options** - A student who is currently enrolled in high school may enroll in the post-secondary enrollment options program. Students must meet the outlined requirements for these programs.
- **Guest or Transient Student** -

  (from another institution) A student who is regularly enrolled and eligible to continue at another institution, and who desires to enroll at The University of Akron for specified courses. A student who is currently on suspension from the home institution is not eligible to be a Guest student. There is a two consecutive term limit for this classification.

  (from The University of Akron) A student enrolled at The University of Akron who must obtain written permission from the dean of the student's college before enrolling (guest student status) for credit work at another institution. Credit for such work may be granted at the discretion of the dean.

ADMISSION PROCEDURE

The University of Akron operates under a policy of rolling admissions, which means an applicant receives a letter of admission as soon as all credentials are processed. There is no set date for notification of admission; it is an ongoing process. However, it is advisable for a prospective student to submit all credentials as early as possible to be assured the best selection of classes and/or a room in the residence halls.

Admission procedures vary for different types of students. The various admissions categories include: recent high school graduate, "new majority" adult student, transfer student, postbaccalaureate student, special student, guest student, post-secondary enrollment options student, and international student.

Please contact the Office of Admissions for application deadlines and admission information, (330) 972-7100, or toll-free (800) 655-4884.

Graduating High School Seniors

A student currently enrolled as a high school senior or a student who has graduated from high school not more than one year ago should apply for admission as follows:

- The State of Ohio has adopted a policy stating that students must pass the ninth-grade proficiency test in order to receive a diploma, except for those students who are exempt from taking the test. Therefore, The University of Akron requires successful completion of the ninth-grade proficiency test for graduating high school seniors. The GED Certificate of High School Equivalency is recognized in lieu of the diploma.
- Obtain an application form from the Office of Admissions, either by calling (330) 972-7100, or toll-free (800) 655-4884, or writing the Office of Admissions, The University of Akron, Akron, OH 44325-2001. Fill it out and return it as soon as possible with the nonrefundable application fee (a one-time charge). All checks should be made payable to The University of Akron and should specify what fees and for which student the payment is being made.
- Send a completed copy of the College Prep Core Curriculum form to the Office of Admissions at the time of application.
- Send a student transcript to the Office of Admissions at the time of application. This record must be received before any admission action can be taken by the University.
- Take entrance tests. Arrangements may be made through the student's high school to take the ACT or SAT. (The University's Counseling and Testing Center also serves as a testing site for the ACT test.) Test scores must be submitted before an applicant can be formally admitted to the University.
- The University requires enrollment in basic mathematics and/or English if the student's academic adviser determines that deficiencies exist in one or both of these areas. This recommendation will be based on the following: work completed at a previous institution in mathematics and/or English, high school academic record (if available), standardized test results (ACT or SAT if available), and University mathematics and/or placement test results. If a mathematics or English placement test is deemed necessary to comply with this policy, the student must take the appropriate placement test(s) by the completion of the first term of attendance.
- To arrange for the mathematics test, contact the Testing Bureau, Simmons Hall 161, at (330) 972-7084. The English test can be taken by contacting the Department of Developmental Programs, Carroll Hall 210, at (330) 972-7087. Have test score(s) interpreted by contacting the dean of the University College, Spicer Hall 214, at (330) 972-7066 two days after taking the appropriate test(s). Please note that failure to take the required test(s) prohibits enrollment in college-level mathematics and/or English courses.
- A health record will be sent from the Office of Admissions after the student has been admitted. Please complete the form and return it. This provides the University with the information necessary for a complete health record on every student.
- In the letter of admission to the University, the student will receive directions for new student orientation and academic advising.

Adult Students

An adult student who has graduated from a regionally accredited secondary school or completes the GED test is eligible to enroll.

The following application procedures should be followed:

- Obtain an application form from the Office of Admissions, either by calling (330) 972-7100, or toll-free (800) 655-4484, or by writing the Office of Admissions, The University of Akron, Akron, OH 44325-2001. Fill it out and return it as soon as possible with the nonrefundable application fee (a one-time charge). All checks should be made payable to The University of Akron, and should specify what fees and for which student the payment is being made.
- If the student is under 25 years of age at the beginning of the term for which they apply, the student must request a high school transcript. This official record must be received and evaluated before admission action can be taken.
- If the student is under 21 years of age at the beginning of the term for which they apply, the student must submit results of either the ACT or SAT. (The University of Akron's Counseling and Testing Center serves as a testing center for the ACT test.) These test scores are needed before an applicant is formally admitted to the University.
- A health record will be sent from the Office of Admissions after the student has been admitted. Please complete the form and return it. This provides the University with the information necessary for a complete health record on every student.
- In the letter of admission to the University, the student will receive directions concerning new student orientation. All freshmen receive academic advising through the Academic Advisement Center.

Transfer Students

A student applying for admission who has formerly attended another regionally accredited institution of higher learning may apply to transfer to The University of Akron. Also, the student must present scholastic records judged to be satisfactory by University of Akron officials. The assessment of scholastic records may include consideration of prior courses, grade-point average, credit value, and other such factors which the University or individual colleges use in evaluating, ranking, or otherwise determining admissibility to the University or to specific programs. Please contact the Office of Admissions for admission criteria.

A transfer student should apply as follows:

- Obtain an application form from the Office of Admissions, either by calling (330) 972-7100, or toll-free (800) 655-4884, or writing the Office of Admissions, The University of Akron, Akron, OH 44325-2001. Fill it out and return it as soon as possible with the nonrefundable application fee (a one-time charge). All checks should be made payable to The University of Akron, and should specify what fees and for which student the payment is being made.
- A transfer applicant must request the official transcripts from the records office of all institutions previously attended. They should be mailed to the Office of Admissions.
- A student under 25 years of age and with fewer than 12 credits of accredited transfer work must submit a high school transcript or GED scores along with the college transcript(s). A student under 21 years of age and having fewer than 12 transfer credits must submit results from the ACT or SAT test in addition to a high school transcript or GED scores. If it appears necessary to validate the transfer credits of a student with more than 12 credits, the appropriate admitting officer may also require the ACT battery. These documents must be received and evaluated before any admission action can be taken by the University.
- The University requires enrollment in basic mathematics and/or English if the student's academic adviser determines that deficiencies exist in one or both of these areas. This recommendation will be based on the following: work completed at a previous institution in mathematics and/or English; high school academic record (if available); standardized test results, ACT or SAT (if available); and University mathematics and/or English placement test results. If a mathematics or English placement test is deemed necessary to comply with this policy, the student must take the appropriate placement test(s) by the completion of first term of attendance. Arrange for the mathematics test by contacting the Testing Service (Simmons 161, (330) 972-7084); arrange for the English test by contacting the Department of Developmental Programs (Carroll 210, (330) 972-7087); and, have test score(s) interpreted by contacting the dean of the University College two days after taking the appropriate test(s).
- Please note that failure to take the required test(s) prohibits enrollment in college level mathematics and/or English courses.
- A health record will be sent from the Office of Admissions after the student has been admitted. Please complete the form and return it. This provides the University with the information necessary for a complete health record on every student.
- In the letter of admission, the student will receive directions concerning academic counseling. University College freshmen and some sophomore day students receive academic advisement through the Academic Advisement Center. A student in the Community and Technical College or another degree-granting college will be advised by a faculty member in the appropriate department.

Transfer Module

The Ohio Board of Regents, following the directive of the Ohio General Assembly, has developed a new statewide policy to facilitate movement of students and transfer credits from one Ohio public college or university to another. The purpose of the State Policy is to avoid duplication of course requirements and to enhance student mobility throughout Ohio's higher education system. Since independent colleges and universities in Ohio may or may not be participating in the transfer policy, students interested in transferring to an independent institution are encouraged to check with the college or university of their choice regarding transfer agreements.

The new Ohio Board of Regents' Transfer and Articulation Policy established the Transfer Module, which is a specific subset or the entire set of a college or university's general education requirements. The Transfer Module contains 54-60 quarter hours or 36-40 semester hours of specified course credits in English composition, mathematics, fine arts, humanities, social science, behavioral science, natural science, physical science, and interdisciplinary coursework.

A transfer module completed at one college or university will automatically meet the requirements of the transfer module at the receiving institution, once the student is accepted. Students may be required, however, to meet additional general education requirements that are not included in the Transfer Module.

Conditions for Transfer Admission

Students meeting the requirements of the Transfer Module are subject to the following conditions:

1. The policy encourages receiving institutions to give preferential consideration for admission to students who complete the Transfer Module and either the Associate of Arts or the Associate of Science degrees. These students will be able to transfer all courses in which they received a passing grade of D or better. Students must have an overall grade point average of 2.0 to be given credit for the Transfer Module.
2. The policy also encourages receiving institutions to give preferential consideration for admission to students who complete the Transfer Module with a grade C or better in each course and 90 quarter hours or 60 semester hours. Students must have an overall grade point average of 2.0 to be given credit for the Transfer Module and only courses in which a C or better has been earned will transfer.
3. The policy encourages receiving institutions to admit on a non-preferential consideration basis students who complete the Transfer Module with a grade of C or better in each course and less than 90 quarter hours or 60 semester hours. These students will be able to transfer all courses in which they received a grade of C or better.

Admission to a given institution, however, does not guarantee that a transfer student will be automatically admitted to all majors, minors, or fields of concentration at that institution. Once admitted, transfer students shall be subject to the same regulations governing applicability of catalog requirements as all other students. Furthermore, transfer students shall be accorded the same class standing and other privileges as native students on the basis of the number of credits earned. All residency requirements must be successfully completed at the receiving institution prior to the granting of a degree.

Responsibilities of Students

In order to facilitate transfer with maximum applicability of transfer credit, prospective transfer students should plan a course of study that will meet the requirements of a degree program at the receiving institution. Specifically, students should identify early in their collegiate studies an institution and major to which they desire to transfer. Furthermore, students should determine if there are language requirements or any special course requirements that can be met during the freshman or sophomore year. This will enable students to plan and pursue a course of study that will articulate with the receiving institution's major. Students are encouraged to seek further information regarding transfer from both their advisor and the college or university to which they plan to transfer.

Appeals Process

A multi-level, broad based appeal process is required to be in place at each institution. A student disagreeing with the application of transfer credit by the receiving institution shall have the right to appeal the decision. The student must submit the appeal in writing to the Dean of University College. A committee comprised of the Dean of University College, Associate Dean from the degree-granting college of the student's academic major and the Associate registrar shall review the appeal. If the student disagrees with the appeal committee's decision, he/she may appeal to the Associate Provos

If a transfer student's appeal is denied by the institution after all appeal levels within the institution have been exhausted, the institution shall advise the student in writing of the availability and process of appeal to the state level Articulation and Transfer Appeals Review Committee.

The Appeals Review Committee shall review and recommend to institutions the resolution of individual cases of appeal from transfer students who have exhausted all local appeal mechanisms concerning applicability of transfer credits at receiving institutions.

Transfer Module Course Requirements

The University of Akron Transfer Module requires a minimum of 38 semester credits in six areas as follows (**NOTE**: *All courses marked with an asterisk (*) may lead toward an associate degree only.*):

I. English – 7 credits

2020:121	English*	4
	or	
3300:111	English Composition	4
	and	
3300:112	English Composition II	3

II. Mathematics– 3 credits

2030:152, 153	Elements of Math II, III*	2, 2
2030:161	Math for Modern Technology*	4
3450:113	Combinatorics and Probability	1
3450:114	Matrices	1
3450:115	Linear Programming	1

3450:127	Trigonometry	2
3450:138	Math of Finance	1
3450:145	College Algebra	4
3450:149	Pre-calculus Math	4
3450:215	Concepts of Calculus I	4
3450:221	Analytic Geometry-Calculus I	4
3470:260	Basic Statistics	3
3470:261	Introductory Statistics I	2
3470:262	Introductory Statistics II	2

III. Arts/Humanities – 10 credits

The following is required of all students:

3400:210	Humanities in the Western Tradition I	4

Two courses from different sets are required from the following:

Set 1

7100:210	Visual Arts Awareness	3
7500:201	Exploring Music: Bach to Rock	3
7800:301	Introduction to Theatre and Film	3
7900:200	Viewing Dance	3

Set 2

3200:220	Introduction to the Ancient World	3
3200:230	Sports and Society in Ancient Greece and Rome	3
3200:289	Mythology of Ancient Greece	3
3600:101	Introduction to Philosophy	3
3600:120	Introduction to Ethics	3
3600:170	Introduction to Logic	3

Set 3

3200:361	Literature of Greece	3
3300:250	Classic and Contemporary Literature	3
3300:252	Shakespeare and His World	3
3580:350	Literature of Spanish America in Translation	3

Set 5

3400:211	Humanities in the Western Tradition II	4

IV. Social Science – 6 credits

Select two courses from two different sets:

Set 1

2040:247	Survey of Basic Economics*	3
3250:100	Introduction to Economics	3
3250:200	Principles of Microeconomics	3
3250:244	Introduction to Economic Analysis	3

Set 2

3350:100	Introduction to Geography	3

Set 3

2040:240	American Urban Society*	3
3700:100	Government and Politics in the U.S.	4
3700:100	World Politics and Government	3

Set 4

2040:240	Human Relations*	3
3750:100	Introduction to Psychology	3

Set 5

3850:100	Introduction to Sociology	4
3870:150	Cultural Anthropology	4

Set 6

3400:250	U.S. History to 1877	4
3400:251	U.S. History since 1877	4

Set 7

2040:241	Technology and Human Values*	2
3600:125	Theory and Evidence	3

V. Natural Science – 8 credits

Select at least two different sciences, one of which must include a laboratory component:

2820:161	Technical Physics: Mechanics I*	2
2820:162	Technical Physics: Mechanics II*	2
2820:163	Technical Physics: Electricity and Magnetism*	2
2820:164	Heat and Light*	2
2820:105	Basic Chemistry*	3
2820:111	Introductory Chemistry*	3
2820:112	Introductory and Analytical Chemistry*	3
3100:100	Introduction to Botany	4
3100:101	Introduction to Zoology	4
3100:103	Natural Science: Biology	4
3100:111	Principles of Biology I	4
3100:112	Principles of Biology II	4
3100:130	Principles of Microbiology	3
3100:208	Human Anatomy and Physiology	4
3100:209	Human Anatomy and Physiology	4
3150:100	Chemistry and Society	3
3150:110,11	Introduction to General, Organic and Biochemistry I, Lab	5
3150:112,13	Introduction to General, Organic and Biochemistry II, Lab	6
3150:151	Principles of Chemistry I	3
3150:152	Principles of Chemistry Laboratory	1
3150:153	Principles of Chemistry II	3
3370:100	Earth Science	3
3370:103	Natural Science: Geology	3
3370:200	Environmental Geology	3
3370:201	Exercises in Environmental Geology I	1
3370:203	Exercises in Environmental Geology II	1
3650:130	Descriptive Astronomy	4
3650:133	Music, Sound and Physics	4
3650:137	Light	4
3650:160	Physics in Sports	3

VI. Interdisciplinary – 4 credits, two courses

2040:254	The Black American	2
3350:375	Geography of Cultural Diversity	2
3400:385	World Civilizations: China	2
3400:386	World Civilizations: Japan	2
3400:387	World Civilizations: Southeast Asia	2
3400:388	World Civilizations: India	2
3400:389	World Civilizations: Near East	2
3400:390	World Civilizations: Africa	2
3400:391	World Civilizations: Latin America	2

Additional information regarding the Transfer Module may be obtained from the University College Dean's Office, (330) 972-7066.

Postbaccalaureate Students

A student who holds the baccalaureate degree from an accredited college and wishes to continue educationally but has not been admitted to the Graduate School, should apply as a postbaccalaureate student through the Office of Admissions. This procedure should be followed:

- Obtain an application form from the Office of Admissions, either by calling (330) 972-7100, or toll-free (800) 655-4884, or writing the Office of Admissions, The University of Akron, Akron, OH 44325-2001. Fill it out and return it as soon as possible with the nonrefundable application fee (a one-time charge). All checks should be made payable to The University of Akron, and should specify what fees and for which student the payment is being made.
- A postbaccalaureate student must request transcripts from the institution from which he or she received a bachelor's degree and any transcripts for any subsequent coursework. These documents must be received and evaluated before any admission action can be taken by the University.
- A health record will be sent from the Office of Admissions after the student has been admitted. Please complete the form and return it. This provides the University with the information necessary for a complete health record on every student.
- In the letter of admission, the student will receive information on registration and instructions for academic counseling by a faculty member in the appropriate department.

Special Student

A special student is one who does not qualify for regular admission to the University or who is participating in a special short-term academic program.

A special student may not take more than 15 credits unless official status as a regular student is gained.

This procedure should be followed:

- Obtain an application from the Office of Admissions, The University of Akron, Akron, OH 44325-2001.
- Obtain permission to enroll under the Special Student category from an admissions officer.
- Information regarding registration for classes and academic advising will be forthcoming in the letter of admission to the special student program.

Postsecondary Enrollment Options

Postsecondary Enrollment Options program is a state-wide program created by the Ohio legislature to allow high school students to enroll in a college or university for the fall and spring semesters. There are two options for students interested in the program:

Option A: This option allows students to receive college credit only. The student is responsible for all costs associated with enrollment including, but not limited to, textbooks, materials, supplies, tuition and fees.

Option B: This option allows students to receive high school graduation credit and college credit simultaneously. Textbooks, materials, tuition and fees related to the course work are provided at public expense.

A student in grades 9-12 may enroll in the Postsecondary Enrollment Options program. The Postsecondary Enrollment Options programs are limited and selective. The University has the right to accept only as many qualified students as can be properly served.

Students wishing to enroll in University classes as a **9th** or **10th** grader must provide the following:

- minimum SAT score (verbal plus mathematical score) or 1150 or ACT composite score of 26.
- minimum cumulative grade point average (GPA) of **3.75** on a 4.0 scale.
- evidence of passing all portions of the ninth grade proficiency test.
- a letter of recommendation from school instructor within the student's field of interest at the University.
- grades of at least a B+ in all English courses.
- an essay (500 words or less) about why he/she wants to enroll in the program.

Students who wish to enroll in the Postsecondary Enrollment Option program and who will be **11th** or **12th** graders at the time of their enrollment must meet the outlined criteria:

- demonstrated academic ability, maturity, and preparation.
- minimum cumulative GPA of **3.0** for college preparatory course work.
- evidence of passing all portions of the ninth grade proficiency test.
- Students without college preparatory course work must have a **3.3 GPA** for work completed.
- Students without college preparatory course work and with less than a 3.3 GPA are limited to performance type courses such as music, art, etc.

Students interested in participation in the program should:

- obtain a Postsecondary Enrollment Options application from the Office of Admissions, The University of Akron, Akron, Ohio 44325 2001.
- complete and return the form with the guidance counselor's and parents' signatures and the non-refundable application fee (a one time charge).

Information regarding acceptance into the program, registration for classes, and academic advising will be forthcoming in the letter of admission to the Postsecondary Enrollment Options program.

Guest Students (Non-University of Akron Students)

An undergraduate guest student must apply to the Office of Admissions. A graduate student must apply through the dean's office of the Graduate School.

A guest student may not, as a general rule, attempt more than 16 credits in any semester or session and is subject to all rules and regulations of The University of Akron. Guest students must be in good standing at their home school.

The following procedures should be followed when applying to the University as a guest student:

- Obtain a guest student application from the Office of Admissions, The University of Akron, Akron, OH 44325-2001. Complete it and return it with the nonrefundable application fee (a one-time charge).
- Receive advice and written approval by the home institution of the coursework for which the student plans to enroll.
- After admittance, information regarding registration will be sent to the student. The admissions officers act as guest student counselors.

CONDITIONAL/ UNCONDITIONAL ADMISSION

The University of Akron has adopted a "conditional/unconditional" admission policy for traditional-aged entering freshmen effective Fall 1994. Traditional-aged freshmen are defined as those who have graduated from high school within the previous two years. The policy was established to communicate to students whether they are academically prepared to be successful at the University. The key elements of the policy are:

Entering freshmen who are identified as being academically underprepared will be admitted "conditionally" and be required to complete skill building courses and other prescriptive activities. Conditionally admitted students are those with less than a 2.30 GPA and less than 16 ACT/650 SAT with or without the core curriculum or less than a 2.8 GPA and less than 19 ACT/800 SAT without the core curriculum.

Core curriculum is defined by the following:

English	4 units
Mathematics	3 units
Natural Science	3 units
Social Science	3 units
Foreign Language	2 units

Most students (including those who are undecided about their major) begin their college career in the University College. Students are admitted "unconditionally" to the University College if their credentials are above the standards for conditional admission but below the standards for direct admission to an academic program.

All students (both conditional and unconditional) pursuing an associate's degree will be admitted directly to the Community and Technical College.

Academically talented freshmen will have the option of admission directly to the program of their choice. To be directly admitted, a student must meet certain academic standards such as high school grade-point average, test scores, class rank, and core curriculum. The standards for direct admission are determined by each department.

COLLEGE/DEPT.	MINIMUM REQUIREMENTS
Buchtel College of Arts and Sciences	Requirements vary by department
Biology	• 3.0 high school grade point average • 21 ACT - 880 SAT • upper 50% of high school graduating class • core curriculum
Chemistry	• 3.0 high school grade point average • 20 ACT - 840 SAT • upper 50% of high school graduating class • core curriculum
Classics	• 3.3 high school grade point average • 25 ACT - 1050 SAT • upper 50% of high school graduating class • core curriculum
Economics	• 2.7 high school grade point average • 20 ACT - 840 SAT • upper 50% of high school graduating class • core curriculum
English	• 2.75 high school grade point average • 20 ACT - 840 SAT • upper 50% of high school graduating class • core curriculum
Geography and Planning	• 2.75 high school grade point average • 20 ACT - 840 SAT • upper 50% of high school graduating class • core curriculum
Geology	• 2.75 high school grade point average • 21 ACT - 880 SAT • upper 50% of high school graduating class • core curriculum
History	• 2.75 high school grade point average • 21 ACT - 880 SAT • upper 50% of high school graduating class • core curriculum
Mathematical Sciences *Mathematics, Applied Mathematics, Computer Science, Statistics*	• 3.0 high school grade point average • 22 ACT - 920 SAT • upper 50% of high school graduating class • core curriculum
Modern Languages	• 3.0 high school grade point average • 20 ACT - 840 SAT • upper 50% of high school graduating class • core curriculum
Philosophy	• 3.0 high school grade point average • 22 ACT - 920 SAT • upper 50% of high school graduating class • core curriculum

Criteria for Direct Admission to Degree-Granting College, cont.

COLLEGE/DEPT.	MINIMUM REQUIREMENTS
Physics	• 3.0 high school grade point average • 22 ACT - 920 SAT • upper 50% of high school graduating class • core curriculum
Political Science	• 3.0 high school grade point average • 21 ACT - 880 SAT • upper 50% of high school graduating class • core curriculum
Psychology	• 3.3 high school grade point average • 25 ACT - 1050 SAT • upper 50% of high school graduating class • core curriculum
Sociology	• 3.0 high school grade point average • 21 ACT - 880 SAT • upper 50% of high school graduating class • core curriculum
College of Business Administration (all departments)	• 3.0 high school grade point average or • upper 50% of high school graduating class • 21 ACT - 880 SAT • core curriculum
College of Education (all departments)	• 3.5 high school grade point average • 25 ACT - 1050 SAT • upper 20 of high school graduating class • core curriculum
College of Engineering (all departments)	• 3.4 high school grade point average • 24 ACT - 1010 SAT Composite score • 25 ACT - 560 SAT Math score • upper 25% of high school graduating class • core curriculum including: — 4 units Math, including Trigonometry, — with grade of B or above, — 1 unit Chemistry, with grade of B or above
College of Fine and Applied Arts	Requirements vary by major below
Art	• 3.3 high school grade point average • 22 ACT - 920 SAT • upper 30 of high school graduating class • core curriculum
Communication	• 3.4 high school grade point average • 25 ACT - 1050 SAT Composite score • 27 ACT - 600 SAT Verbal score • upper 25% of high school graduating class • core curriculum
Speech-Language Pathology and Audiology	• 3.5 high school grade point average • 25 ACT - 1050 SAT • upper 10 of high school graduating class • core curriculum
Dance	• 3.0 high school grade point average • 19 ACT - 800 SAT • upper 50% of high school graduating class • core curriculum • at point of audition, student must qualify for admission to Ballet V or higher • must continue in good standing and pass sophomore jury
Music	No direct admission

COLLEGE/DEPT.	MINIMUM REQUIREMENTS
College of Fine and Applied Arts, cont.	
Theatre Arts	• 2.5 high school grade point average • 19 ACT - 800 SAT • upper 65 of high school graduating class • core curriculum
Social Work	No direct admission
Home Economics and Family Ecology	Requirements vary by major below
Family Development, Child Development, and Pre-K Certification	• 3.0 high school grade point average • 19 ACT - 800 SAT • upper 50% of high school graduating class • core curriculum • enroll in and complete 7400:147 during first year of coursework
Child Life	• 3.0 high school grade point average • 19 ACT - 800 SAT • directly admitted as Child Development major • as a junior must complete further evaluation based on interviews, interests, and grade point average
Fashion Merchandising and Interior Design	• 3.0 high school grade point average • 19 ACT - 800 SAT • upper 50% of high school graduating class • core curriculum • enroll in and complete 7400:147 during first year of coursework
Dietetics and Nutrition	• 3.5 high school grade point average • 20 ACT - 840 SAT • upper 25% of high school graduating class • core curriculum • enroll in and complete 7400:147 during first year of coursework
Food Science	• 3.0 high school grade point average • 19 ACT - 800 SAT • upper 50% of high school graduating class • core curriculum • enroll in and complete 7400:147 during first year of coursework • take Chemistry I and II courses • meet with Food Science adviser during first semester on campus
Home Economics Education, Vocational Home Economics Teacher Education	• 3.0 high school grade point average • 19 ACT - 800 SAT • upper 50% of high school graduating class • core curriculum • enroll in and complete 7400;147 during first year of coursework • meet with Home Economics adviser durihg first semester on campus
College of Nursing	• 3.5 high school grade point average • 25 ACT - 1050 SAT • upper 10% of high school graduating class • core curriculum including: • Algebra and Geometry • Biology and Chemistry
Community and Technical College (all departments)	All students, both conditional and unconditional, will be admitted directly.
Wayne College (all departments)	All students, both conditional and unconditional, will be directly admitted.

INTERNATIONAL STUDENTS

The University of Akron welcomes international students and seeks to make their educational experience pleasing and meaningful. Each year, approximately 850 international students from 77 countries pursue studies and research at The University of Akron.

Admission Procedures for International Students

International students may begin their undergraduate study for the Fall (last week in August) or Spring (mid-January) semesters or for either of the University's two summer sessions (June/July). Students should submit their applications at least five months in advance of the date they wish to begin their studies.

Applicants should have completed secondary schooling and have the equivalent to a 2.00 on a 4.00 GPA scale.

The following documents must be received before an application can be acted upon:

1) International Student Application

Requests may be made to:

Office of International Programs
International Admissions
The University of Akron
Akron, OH 44325-3106
USA

Telephone: (330) 972-6349
Fax: (330) 972-8604
E-Mail: international@uakron.edu
World Wide Web: http://www.uakron.edu/studentaffairs/INTERNATIONAL/IP-MAIN.html

Return the completed application to the above address with a non-refundable one-time application fee of $50 made payable to The University of Akron. Application fees will not be waived.

2) Transcripts

Official transcripts or attested copies from universities, schools or colleges previously attended must be submitted. The originals must be accompanied by exact certified English translations. Upon request, official documents may be returned to the student.

3) Degree Conferral

All applicants must submit documentation for all prior degrees earned. Provisional certificates may be accepted pending the award of a degree. The same standards of authenticity apply as those used for transcripts.

4) English Language Proficiency

The University requires each non-immigrant student for whom English is not the native language to take the Test of English as a Foreign Language (TOEFL). Applications may be obtained from bi-national agencies, the United States Information Service (USIS), the Educational Testing Service (ETS), or from the Office of International Programs.

Undergraduate applicants must achieve a minimum score of 500. TOEFL scores are valid for a two-year period of time only. Copies of TOEFL scores will not be accepted.

Conditional Admission is offered to students who are academically acceptable but who have not yet reached the level of English proficiency required for Full Admission. Students may enroll in the English Language Institute (ELI) for one or more semesters until they are certified as English proficient. Students enrolled in the ELI may not take academic coursework simultaneously.

Further information may be obtained from:

English Language Institute
The University of Akron
Akron, OH 44325-1909

Telephone: (330) 972-7544
Fax: (330) 972-7353
E-Mail: ua-eli@uakron.edu
World Wide Web: http://www.uakron.edu/oip

Applicants who have satisfactorily completed nine months of full-time academic coursework in an American college/university and are in good standing academically may have the TOEFL examination waived upon written request to the Office of International Programs.

Financial and Immigration Documentation

Undergraduate tuition, fees, and living expenses for the 1998-99 academic year will be approximately $17,524. These figures are reflected on the Declaration and Certification of Finances (DCF), which is included in the application packet. The applicant should complete the back portion of the DCF, attach an original bank statement reflecting sufficient funding and return both documents to the Office of International Programs. Copies are not accepted. Sending financial documents with the application will prevent delays in the issuance of the Certificate of Eligibility (I-20A/B or IAP-66).

In order for a student to obtain a Certificate of Eligibility (I-20A/B or IAP-66) from The University of Akron, the student must be admitted to the University to pursue full-time academic studies, be in good standing with the Immigration & Naturalization Service, and submit an original bank statement reflecting sufficient funding.

Scholarships

A limited number of June Thomas Rogers Scholarships are available to international students. All interested applicants should contact the Office of International Programs for further details.

Medical Insurance Coverage

All international students must carry medical insurance that meets the minimum established requirements set forth by the University. Such coverage must be effective throughout the student's studies at The University of Akron.

International Student Orientation

International students are required to attend the International Student Orientation program that takes place one week before the start of classes and for which they are charged $45. The orientation dates will be provided in the pre-arrival information sent to the student with the immigration documentation.

Procedures and Requirements

NEW STUDENT ORIENTATION

All new freshmen and University College transfer students are required to attend an orientation program in conjunction with registration. Traditional freshmen attend a two-day program intended to insure a smooth transition from high school to college. It includes sessions on academic responsibility, current campus issues, finances, cultural diversity, and involvement in campus life as well as a tour, placement testing, academic advising, and registration. Transfer and adult students will attend a specialized full one-day session tailored to their particular needs.

Details and various orientation fees are included in the material received after admission. Multiple orientation sessions are available prior to each term and are filled on a first-come, first-served basis. Therefore, early and careful planning is important.

ACADEMIC ADVISING

New students are required to meet with academic advisers upon initial entry to the University. Thereafter, students are strongly encouraged to see advisers each term to discuss degree requirements, career goals, major choice, course selection, and other academic concerns.

Conditionally admitted students will have required meetings with their assigned adviser to facilitate their prescribed learning activities.

REGISTRATION

Each term it is necessary for a student to select courses, complete required forms, and pay the appropriate fees to register officially for classes. The student may elect to register by telephone or in person. Details about these options are described in the Schedule of Classes published every academic period and available upon request from the student's advising agency, the Academic Advisement Center, the degree-granting college, Gardner Student Center, or Spicer Hall 104. Students enrolling after the official open registration period will be charged a nonrefundable late registration fee.

CLASS ATTENDANCE

A student is expected to attend all meetings of a class for which he or she is registered. A student may be dropped from a course by the dean if absences are repeated and the instructor recommends this action; a student can gain re-admission only with permission of both dean and instructor. A student dropped from a course receives an "F" which counts as work attempted whenever grade-point ratio calculations are made.

STUDENT SCHEDULES

Additions to Student Schedules

A student must register for a course before the end of the fifth day of a fall or spring term or the second day of a summer session. Additions to the student's official schedule may be made after that date only with the permission of the adviser, instructor, and dean or the dean's designate.

A student in the University College should initiate all changes through an adviser in the Academic Advisement Center, Spicer Hall 200.

Withdrawal Policy

A student may withdraw from a course without an adviser's or course instructor's signature through the 15th day of a semester or comparable dates during summer session, intersession, etc. After the 15th day of a semester, and up to the midpoint of a semester, a student may withdraw from a course with the signature of the student's adviser.

After the midpoint of a semester, a student must have the signature of both the course instructor and the adviser. Such authorization must be dated and processed through the offices of the Registrar and Cashier no later than the last day of the 12th week of classes or comparable dates during summer session, intersession, etc.

Should the instructor or adviser refuse to sign the withdrawal form, the student may appeal to the dean of the student's college, who shall make the final decision after consultation with the instructor or adviser who declined to approve the withdrawal.

An approved withdrawal after the 15th day of the term will be indicated on the University official academic record by a "WD." A student who leaves a course without going through the withdrawal procedure will be given an "F" in the course.

Guest Student (University of Akron Students)

A University of Akron student may take coursework at another institution of higher education as a guest student. For all courses other than general education requirements, the student must obtain **prior** written permission from the dean of the college in which the student is enrolled; for general education courses, **prior** written permission must be obtained from the dean of the University College. These courses will be listed on the University official academic record. Each course will reflect the course number, title, grade, and credit value; no grade-point value will appear on the record and no grade-point average will be calculated for the course work listed. The name of the institution will be listed on the University official academic record as well as the date that the coursework was taken.

GRADE POLICIES AND CREDIT

Grades and the Grading System

A student will receive grades on various types of classroom performance during the process of most courses and a final grade at the end of the term. At the end of the term, the Office of the Registrar mails grade reports to a student's home address; summer grade reports are mailed for both summer sessions at the end of the second summer session.

Individual tests are usually graded with percentage or letter marks, but official academic records are maintained with a grade-point system.

This method of recording grades is as follows:

Grade	*Grade Points Per Credit*
A	4.00
A-	3.70
B+	3.30
B	3.00
B-	2.70
C+	2.30
C	2.00
C-	1.70
D+	1.30
D	1.00
D-	0.70
F	0.00
AUD (Audit)	0.00
CR (Credit)	0.00
NC (Noncredit)	0.00

The following grades may also appear on the term grade reports or on the official academic record. There are no grade points associated with these grades.

I - Incomplete: Indicates that the student has done passing work in the course but that some part of the work is, for good and acceptable reason, not complete at the end of the term. Failure to make up the omitted work satisfactorily by the end of the following term, not including summer sessions, converts the "I" to an "F". When the work is satisfactorily completed within the allotted time the "I" is converted to whatever grade the student has earned. (If instructors wish to extend the "I" grade beyond the following term for which the student is registered, prior to the end of the term they must notify the Office of the Registrar in writing of the extension and indicate the date of its termination. It is the responsibility of the student to make arrangements to make up the incomplete work. The faculty member should submit the new grade to the Office of the Registrar in writing.)

IP - In Progress: Indicates that the student has not completed the scheduled coursework during the term because the nature of the course does not permit completion within a single term, such as work toward a thesis.

PI - Permanent Incomplete: Indicates that the student's instructor and the instructor's dean have for special reason authorized the change of an incomplete ("I") to a permanent incomplete ("PI").

WD - Withdraw: Indicates that the student registered for the course but withdrew officially sometime after the second week of the term.

NGR - No Grade Reported: Indicates that, at the time grades were processed for the current issue of the record, no grade had been reported by the instructor.

INV - Invalid: Indicates the grade reported by the instructor for the course was improperly noted and thus unacceptable for proper processing.

Importance of Grades

Grades determine whether a student is either eligible or ineligible to remain at the University. Eligibility in the 200-plus registered student organizations and other cocurricular activities is dependent on the student's maintenance of academic good standing at the University. Some selective organizations such as honoraries and varsity athletics require special eligibility criteria.

On the basis of grades, a student receives opportunities to take additional courses to accelerate academic progress.

A student should transfer from the University College to a degree-granting college when the grade and credit-hour requirements of that college have been met. Acceptance for admission to a college depends on the approval of the dean of the college which the student chooses to enter and on the student's academic performance to date.

Dean's List

Undergraduate students who carry 12 graded credits or more without receiving an "Incomplete" or "In Progress" grade and earn a grade point average of 3.25 or better are eligible for inclusion on the Dean's List of their respective college. This is an undergraduate academic honor recognizing excellence in the classroom prior to the completion of the degree.

Part-Time Student Dean's List

Undergraduate part-time students who carry between 6 and 11.5 graded credits without receiving an "Incomplete" or "In Progress" grade and earn a grade point average of 3.25 or better are eligible for inclusion on the Part-Time Student Dean's List of their respective college. This is an undergraduate academic honor recognizing excellence in the classroom prior to the completion of the degree.

Probation-Dismissal

A student who fails to maintain a grade-point average of 2.00 ("C") is placed on academic probation and may be subject to a change of courses, suspension, or some other form of discipline. Academic discipline is determined by the dean of the college in which the student is enrolled. Reinstatement of a student is determined by the dean of the college from which the student was dismissed.

Once dismissed from the University, a student is not eligible to register for credit courses until readmitted.

Repeating Courses

Any course may be repeated TWICE by an undergraduate student subject to the following conditions:

- To secure a grade ("A-F") or a grade of "NC," "CR" or "AUD," a student may repeat a course in which the previously received grade was "C-," "D+," "D," "D-," "F," "AUD" or "NC." Registrations under the "CR/NC" option are subject to the restrictions in the "CR/NC" policy.
- With the dean's permission, a student may substitute another course if the previous course is no longer offered. Courses must be repeated at The University of Akron.
- Grades for all attempts at a course will appear on the student's official academic record.
- Only the grade for the last attempt will be used in the calculation of graduation grade-point average.
- All grades for attempts at a course will be used in grade-point calculation for the purpose of determining graduation with honors and class standing.
- For purposes of this section, credit for this course or its equivalent will apply only once toward meeting degree requirements.

Academic Reassessment

An undergraduate student who has not attended The University of Akron for at least three calendar years and re-enrolls and maintains a grade-point average of at least 2.50 or better for the first 24 credits may petition the Dean to delete from the grade-point average the grades attained under the student's previous enrollment at The University of Akron.

This policy is to apply only to the grade-point average. All grades will remain on the student's official academic record. A student may utilize this academic reassessment policy only once.

In the determination of graduation with honors and class standing, all grades obtained at The University of Akron shall be used in the calculations.

Once these criteria are met, the student petitions the dean to delete from the grade-point average the grades obtained under the previous enrollment. Reassessment affects the grade-point average only; grades remain on the student's official academic record and are part of the calculation in determining graduation with honors and class standing.

Academic Dishonesty

Students at The University of Akron are an essential part of the academic community, and enjoy substantial freedom within the framework of the educational objectives of the institution. The freedom necessary for learning in a community so rich in diversity and achieving success toward our educational objectives requires high standards of academic integrity. Academic dishonesty has no place in an institution of advanced learning. The University community is governed by the policies and regulations contained within the Student Code of Conduct available in the Office of Student Conduct, Gardner Student Center 104, (330) 972-7021.

The University of Akron considers academic integrity an essential part of each student's personal and intellectual growth. Instances of academic dishonesty are addressed consistently. All members of the community contribute actively to building a strong reputation of academic excellence and integrity at The University of Akron.

It is each student's responsibility to know what constitutes academic dishonesty and to seek clarification directly from the instructor if necessary. Examples of academic dishonesty include, but are not limited to:

- Submission of an assignment as the student's original work that is entirely or partly the work of another person.
- Failure to appropriately cite references from published or unpublished works or print/non-print materials.
- Unauthorized copying of an assignment in computer programming, or the unauthorized examination or view of the computer, specifically during examinations.
- Possession and/or unauthorized use of tests, notes, books, calculators or formulas stored in calculators not authorized by the instructor during an examination.
- Providing and/or receiving information from another student other than the instructor, by any verbal or written means.
- Observing or assisting another student's work.
- Violation of the procedures prescribed by the professor to protect the integrity of the examination.
- Cooperation with a person involved in academic misconduct.

A student who has been accused of academic dishonesty will be asked to meet with the course instructor. The matter can be resolved informally at the College level and/or an academic sanction can be imposed. If the student opposes the decision, he/she may appeal to the College Dean. If the matter is referred to the Office of Student Conduct, an informal meeting will occur and, if substantial evidence exists, the office has the authority to take formal action against the student including, but not limited to, suspension or dismissal from the University. A more detailed discussion of these procedures can be found in the Student Code of Conduct.

Student Outcomes Assessment

The purpose of The University of Akron's student assessment program is to improve student growth in academic and social skills, student services, and the quality of campus life. Most students will be involved in both voluntary and required assessment activities. Participation in these activities will be monitored and sanctions will be imposed for students not complying with the required activities.

Credit/Noncredit Option
(undergraduate and postbaccalaureate only)

A student who takes a course on a "credit" or "noncredit" (CR/NC) basis, and who earns a grade equivalent of "A" through "C-," shall receive credit ("CR") for the course and have the grade, "CR," placed on the permanent record; a grade equivalent of "D+" through "F" will be recorded with the noncredit grade, "NC."

For the baccalaureate degree, no more than 16 credits of non-language courses and no more than 20 credits in total (including language courses) is permitted to be taken on a CR/NC basis. (For the associate degree, no more than eight credits of non-language courses and no more than 10 credits in total [including language courses].)

A student is eligible for the CR/NC option if the student has:

- completed 50% of the number of credits required for a degree;
- a GPA of at least 2.30; and
- the consent of an adviser.

The CR/NC option is available **only** at the time of registration for the course. After the first week of the term or first two days of a summer session, the status can not be changed. The registrar will notify the instructor of those students utilizing the CR/NC option by means of the final class list.

Courses that **can** be taken on a CR/NC basis:

- one free elective (not in major field) course per term;
- any first- and/or second-year foreign language course at any time, regardless of grade-point average.

Courses that **can not** be taken CR/NC:

- any General Education courses
- courses required by colleges and departments of all undergraduate majors

Courses for which "CR" is awarded will be counted as hours completed only; courses for which "NC" is awarded shall not be counted as hours attempted; in neither case shall "CR" or "NC" be considered in calculating grade-point average, but in both instances the course shall be entered on the student's official academic record.

A student may repeat a course for credit (CR), or a grade (A-F) after receiving a grade of "NC."

A college may designate in the printed schedule, on an annual basis, a course as not available to be taken on a "CR/NC" basis.

A student taking a course on a noncredit basis is expected to meet the full requirements of the course as required by the instructor.

A student can not raise a grade through re-examination.

Audit Policy

A student choosing to audit a course must be admitted and indicate audit at the time of registration. The student pays the enrollment fee and may be expected to do all the work prescribed for students taking the course for credit, except that of taking the examination. Any faculty member may initiate withdrawal for a student not meeting these expectations.

Transient Work at Another University

Any University of Akron student who wishes to take coursework at another accredited institution of higher education must receive prior approval by the academic dean of the appropriate unit if the student intends to apply this coursework toward a degree at The University of Akron.

1. A student can make an official request for transient credit by submitting a Transient Permission Form. If the coursework taken at another institution will be used to satisfy University of Akron General Education requirements, permission to take the course must be received from the University College Dean's Office.
2. If the coursework taken at another institution will be used to satisfy an upper-college degree requirement or as elective credit, permission to take the course must be received from the department or college in which the course is taught at The University of Akron.
3. If a student is within 32 credits of receiving a baccalaureate degree or within 16 units of receiving an associate degree, the student must receive transient permission from the student's degree-granting college.

Note: Coursework taken at another institution cannot be considered for The University of Akron's *Repeat for Change of Grade Policy* or *Academic Reassessment* and will not be calculated into the UA grade-point average.

ALTERNATIVE CREDIT OPTIONS

Advanced Placement Credit

Many high schools offer special Advanced Placement courses through the auspices of the Educational Testing Service for possible college credit. By enrolling in such courses during high school, and taking the Advanced Placement Tests at the end of each course, high school students may earn undergraduate credits in a number of different academic areas. The test score required to receive credit for a specific course is determined by the Academic Department in which the course is offered. Credits earned in this manner are included in the total credits completed, but are not assigned a grade and do not count in the quality-point ratio, class standing, or graduation with honors calculations. Students must take the tests while they are attending their high school. It is not possible to take the tests once a student is enrolled at The University of Akron. The following table lists disciplines available for Advanced Placement testing, scores required for accruing credit, and courses at The University of Akron for which credit may be earned.

Discipline	*Required Score*	*Course*	*Credits*
Art History	4 or 5	7100: 100 Survey of Art History I	4
		7100: 101 Survey of Art History II	4
Art:Studio	4 or 5	7100:___ (One studio course in a specific area of art)	3
Biology	4 or 5	3100:111 Principles of Biology	4
		3100:112 Principles of Biology	4
Biology	3 (non-science majors only)	3100:100 Nature Study: Plants	3
		3100:101 Nature Study: Animals	3
		3100:105 Introduction to Ecology	2
Calculus AB	4 or 5	3450:149 Precalculus Mathematics	4
		3450:215 Concepts of Calculus I	4
		OR	
		3450:149 Precalculus Mathematics	4
		3450:221 Analytical Geometry - Calculus I	4
Calculus BC	4 or 5	3450:149 Precalculus Mathematics	4
		3450:215 Concepts of Calculus I	4
		3450:216 Concepts of Calculus II	4
		OR	
		3450:149 Precalculus Mathematics	4
		3450:221 Analytical Geometry - Calculus I	4
		3450:222 Analytical Geometry - Calculus II	4
Chemistry	3, 4, or 5	3150:151 Principles of Chemistry I	3
		3150:152 Principles of Chemistry I Lab	1
		3150:153 Principles of Chemistry II	3
		3150:154 Quantitative Analysis	2
Computer Science	3, 4, or 5	3460:205 Introduction to Pascal Programming	3
Economics	3, 4, or 5	3250:200 Principles of Microeconomics	3
		OR	
		3250:201 Principles of Macroeconomics	3
English	3 or 4	3300:111 English Composition I	4
English	5	3300:111 English Composition I	4
		3300:112 English Composition II	3
History/American	4 or 5	3400:250 U.S. History to 1877	4
		3400:251 U.S. History since 1877	4
History/European	4 or 5	3400: 211 Humanities in the Western Tradition II	4
Latin	3, 4, or 5	3220:121 Beginning Latin I	4
		3220:122 Beginning Latin II	4
Modern Languages	3, 4, or 5	3580:101 Beginning Spanish I	4
		3580:102 Beginning Spanish II	4
		OR	
(French depends on Form/with consultation)		3520:101 Beginning French I	4
		3520:102 Beginning French II	4
		OR	
		3530:101 Beginning German I	4
		3530:102 Beginning German II	4
Physics	4 or 5	3650:261 Physics for the Life Sciences I	4
		3650:262 Physics for the Life Sciences II	4
		OR	
		3650:291 Elementary Classical Physics I	4
		3650:292 Elementary Classical Physics II	4
Political Science/ American Government	4 or 5	3700:100 Government and Politics in the U.S.	4
Political Science/ Comparative Politics	4 or 5	3700:300 Comparative Politics	4
Psychology	4 or 5	3750:100 Introduction to Psychology	3

Bypassed Credit

Certain courses designated in this Bulletin by each department enable a student to earn "bypassed" credit. A student who completes such a course with a grade of "C" or better is entitled to credit for designated prerequisite courses which carry the same departmental code number. Credit for such bypassed prerequisites shall be included in the total credits earned but shall not count in the quality point ratio, class standing or hours required for graduation with honors. Bypassed credit is not awarded on the basis of completing a course either credit-by-examination or credit/noncredit.

Discipline	*Course*	*Prerequisite*	*Approved for Bypassed Credit*
Community and Technical College			
Mathematics	2030:152	2030:151	2030:151
	2030:153	2030:152	2030:152
	2030:154	2030:153	2030:153
	2030:255	2030:154	2030:154
	2030:356	2030:255	2030:255
Office Administration	2540:151	2540:150	2540:150
	2540:253	2540:151	2540:150,1
	2540:173	2540:171	2540:171
Buchtel College of Arts and Sciences			
Classics	3210:122	3210:121	3210:121
	3210:223	3210:121,2	3210:121,2
	3210:224	3210:121,2,223	3210:121,2,223
	3210:303	3210:121,2,223,4	3210:121,2,223,4
	3210:304	3210:121,2,223,4	3210:121,2,223,4
	3220:122	3220:121	3220:121
	3220:223	3220:121,2	3220:121,2
	3220:224	3220:121,2,223	3220:121,2,223
	3220:303	3220:121,2,223,4	3220:121,2,223,4
	3220:304	3220:121,2,223,4	3220:121,2,223,4
Economics	3250:400	3250:201	3250:201
	3250:410	3250:200	3250:200
English	3300:112*	3300:111	3300:111
Geography and Planning	3350:314	3350:310	3350:310
	3350:442	3350:305	3350:305
	3350:444	3350:305	3350:305
	3350:495	3350:310	3350:310
Mathematical Sciences	3450:215	3450:145 or 149	3450:145
	3450:216	3450:215	3450:215
	3450:221	3450:149	3450:149
	3450:222	3450:221	3450:149,221
	3450:223	3450:222	3450:149,221,222
	3460:210	3460:209,3450:208	3460:205 or 209
	3470:262	3470:261	3470:261
	3470:253	3470:261	3470:261
Modern Languages	3500:102	3500:101	3500:101
	3500:201	3500:101,2	3500:101,2
	3500:202	3520:101, 2, 201	3500:101, 2, 201
	3500:422	3520:101, 2, 201, 2	3500:101, 2, 201, 2
	3520:102	3520:101	3520:101
	3520:201 or 207	3520:102	3520:101,2
	3520:202	3520:201	3520:101,2,201
	3520:208	3520:201 or 207	3520:101,2,201 or 207
	3520:301,2,5,6	3520:202	3520:101,2,201,2
	3520:309,10,11	3520:302 or 306	3520:101,2,201,2
	3520:312,351,2, 313,401	3520:202	3520:101,2,201,2
	3520:403,4	3520:302	3520:101,2,201,2
	3520:407,411,415, 419,427,429,450	3520:302 or 306	3520:101,2,201,2
	3530:102	3530:101	3530:101
	3530:201 or 207	3530:102	3520:101,2
	3530:202	3530:201	3530:101,2,201
	3530:208	3530:201 or 207	3530:101,2,201 or 207
	3530:301,2,305,6 351,2	3530:202	3530:101,2,201,2
	3530:403,4	3530:302	3530:101,2,201,2
	3530:406,7,419,20, 431,2,435,6, 439,440	3530:302 or 306	3530:101,2,201,2
	3550:102	3550:101	3550:101
	3550:201 or 207	3550:102	3550:101,2
	3550:202	3550:201	3550:101,2,201
	3550:208	3550:201 or 207	3550:101,2,201 or 207
	3550:301,2, 305,6	3550:202	3550:101,2,201,2
	3570:102	3570:101	3570:101
	3570:201 or 207	3570:102	3570:101,2
	3570:202	3570:201	3570:101,2,201
	3570:208	3570:201 or 207	3570:101,2,201 or 207
	3570:301,2,305,6, 309,10	3570:202	3570:101,2,201,2
	3570:403,4	3570:302	3570:101,2,201,2
	3570:420,1	3570:301 or 302	3570:101,2,201,2
	3570:427,8	3570:202	3570:101,2,201,2
	3570:439	3570:404	3570:101,2,201,2
	3580:102	3580:101	3580:101
	3580:201 or 207	3580:102	3580:101,102
	3580:202	3580:201	3580:101,2,201
	3580:208	3580:201 or 207	3580:101,2,201 or 207
	3580:301,2, 305,6	3580:202	3580:101,2,201,2
	3580:403,5,6	3580:302	3580:101,2,201,2
	3580:407,8	3580:302 or 306	3580:101,2,201,2
	3580:409,10,11	3580:302	3580:101,2,201,2
	3580:415,419	3580:302 or 306	3580:101,2,201,2
	3580:422	3580:202	3580:101,2,201,2
	3580:423, 427,8,9	3580:302 or 306	3580:101,2,201,2
College of Engineering			
	4200:200	4200:120	4200:120
College of Fine and Applied Arts			
Speech-Language Pathology and Audiology	7700:102	7700:101	7700:101
	7700:201	7700:102	7700:101,2
	7700:202	7700:201	7700:101,2,201
College of Nursing RN-BSN Sequence (Limited to Licensed Registered Nurses)			
	8200:446	8200:336,405 415,435, 440,225	8200:205,215,315 330,350,360,370 380,410
College of Nursing RN-MSN Sequence			
	8200:470,485	8200:460,465 435,225	8200:101,205,210,220 8200:215,325,315,330 350,360,370,380,410

* An ACT English score of 28 and an SAT verbal score of 610 is needed to enroll in 3300:112 without the prerequisite.

College Level Examination Program (CLEP)

College Level Examination Program (CLEP) is a national program that offers the opportunity of obtaining college credit by examination. A variety of experiences may have prepared a person to earn college credit. Each institution determines which CLEP tests it will accept, the passing score, and the amount of credit that will be awarded. CLEP examinations for credit toward any degree are not permissible in the term before graduation. Credit by CLEP may not be used to repeat for change of grade.

CLEP tests are administered each month during the week ending with the third Friday of the month. Deadline for the registration form is always the second Friday of the month before the month in which the test is to be taken (5-week order period.) Contact the Counseling, Testing, and Career Center at (330) 972-7084 for more information.

The following guidelines outline the terms under which The University of Akron will accept the results of specified CLEP tests for college credit.

General Education Course	*Credits*	*CLEP Equivalent*
English Requirement		
3300:111 English Composition I	4	CLEP Subject Examination in Freshman College Composition, plus essay. (Must receive minimum scale of 60 on the subject examination and pass the essay.)
Sociology Requirement		
3850:100 Intro to Sociology	4	Clep Subject Examination in Introductory Sociology. (Must receive minimum scale of 50 on the subject examination.)
Macroeconomics		
3250:201 Princ. of Macroeconomics	3	Clep Subject Examination in Introductory Macroeconomics. (Must receive minimum scale of 50 on the subject examination.)
Government & Politics in the U.S.		
3700:100 Govt. and Politics in the U.S.	4	Clep subject examination in American Government. (Must receive minimum scale of 50 on the subject examination.)
Natural Science Requirement, Biology		
3100:103 Natural Science Biology	4	Clep subject examination in Biology. (Must receive minimum scale of 50 on the subject examination.)

College Level Examination Program (CLEP), cont.

General Education Course	*Credits*	*CLEP Equivalent*
Natural Science Requirement, Chemistry		
3150:100 Chemistry and Society or 3150:151 Principles of Chemistry I or 3150:110 Intro to General Organic and Biochemistry I	3 or 4 or 4	CLEP subject examination in General Chemistry. (Must receive a minimum scale of 50 on the subject examination.)
Western Cultural Traditions Requirement		
3400:210/211 Humanities in the Western Tradition I/II	8	CLEP general examination in Humanities. subject exam in Western Civilization I&II. (Must receive a minimum scale of 50 on each examination and receive passing score on the essay portion of the examination.) **NOTE:** Essay will be arranged by instructor and will count for 50% of the test.
Mathematics Requirement		
3450:145 College Algebra	4	CLEP subject examination in College Algebra. (Must receive a minimum scale of 50 on the subject examination.)
Psychology		
3750:100 Introduction to Psychology	3	CLEP subject examination in Psychology. (Must receive a minimum scale of 50 on the subject examination.)

Credit by Examination

A student interested in earning credits by special examination may do so with the permission of the dean of the student's college and the dean of the college in which a particular course is offered and by payment of a special examination fee. The grade obtained in such an examination is recorded on the student's permanent record. Credit by examination is not permitted in the semester before graduation. Credit by examination may not be used to repeat for change of grade.

International Baccalaureate

The University of Akron recognizes the academic quality of the International Baccalaureate (IB) program and the efforts of students enrolled in IB coursework by awarding advanced-standing credit for the completion of the IB Diploma. Higher level examination scores are considered for departmental credit in the areas of French, Spanish, German, Geography, Latin, Greek, Economics, Chemistry, History, English, Social Anthropology, Mathematics, and Music. Although minimum scores for the awarding of credit vary by subject area, generally scores of four or five are sufficient. No credit is awarded for IB Subsidiary examinations.

For additional information, contact the University College Dean's Office, located at Spicer Hall 120, (330) 972-7066.

Military Credit

The University of Akron awards credit for military experience based upon recommendations by the Commission on Accreditation of Services of the American Council of Education. Block credit is awarded for Basic Training as well as one credit for physical education. Applicability of this credit for a student's degree program will be determined by established University procedures.

In order for credit to be awarded, the student must submit a veteran's DD214 form. In addition, materials such as Course Completion Certificates or Army/ACE Registry Transcript can be used to ensure proper and complete awarding of credit. Documents should be submitted to the Coordinator of Transfer and Articulation Services in University College.

Tech Prep

Tech Prep is a sequence of study beginning in high school and continuing through at least the associate degree level. Tech Prep prepares students for high-skill technical occupations supported by regional businesses and industries in the areas of business, health, and engineering technologies. The 2+2 program integrates academics and occupational training while exposing students to work-world situations.

The University of Akron's application fees are waived for Tech Prep graduates entering the Community and Technical College and Wayne College. Students participating at the high school level are in a prescribed technical track in a designated high school and are eligible for an advanced associate degree curriculum. Successful completion of the Tech Prep associate degree programs will be recognized by a special certificate developed by the Ohio Board of Regents.

For additional information regarding Tech Prep programs, contact the advising offices in the Community and Technical College and Wayne College. Or, call Jan Eley, Coordinator of Tech Prep, at (330) 972-7026.

Tech Prep Postsecondary Enrollment Option

For Tech Prep students who are in high school, the entrance level grade-point average (GPA) for the Community and Technical College and Wayne College is 3.0 overall with the option that students may be admitted with a lower GPA. Approval for this process requires a written recommendation from the high school indicating that the student shows promise in the technical field he or she is pursuing in the Community and Technical College or Wayne College. Approval from the dean's office of the Community and Technical College and Wayne College is also required.

Tech Prep students who enroll in the post-secondary program will be limited to college coursework that directly relates to the technical field (i.e., only coursework in the Community and Technical College or Wayne College.

Students meeting the above requirements will be eligible for PSEO Option B.

Additionally, the application fee will be waived for Tech Prep students.

This procedure should be followed:

- Obtain a post-secondary enrollment options Tech Prep identified application from the Office of Admissions, The University of Akron, Akron, OH 44325-2001.
- Complete and return the form with the guidance counselor's and parent's signatures along with the high school's recommendation to: Jan Eley, Coordinator of Tech Prep, Community and Technical College, The University of Akron, Akron, OH 44325-6501 OR to Bill Bailey, Assistant Dean, Director of Student Services, Wayne College, 1901 Smucker Road, Orville, OH 44667.
- Information regarding acceptance into the program, registration for classes, and academic advising will be forthcoming in the letter of admission to the post-secondary enrollment options program.

Transfer Credit

Credit for coursework taken at an institution of higher education in the United States which is fully accredited or has been granted candidacy status by Middle States Association of Colleges and Schools/Commission on Higher Education (MSA/CHE); New England Association of Schools and Colleges (NEASC); North Central Association of Colleges and Schools (NCA); Northwest Association of Schools and Colleges (NASC); Southern Association of Colleges and Schools Commission on Colleges (SACS); Western Association of Schools and Colleges Accrediting Commission for Senior Colleges (WASC-Sr.); Western Association of Schools and Colleges Accrediting Commission for Community and Junior Colleges (WASC-Jr.) as designated in Accredited Institutions of Postsecondary Education Programs/Candidates as published for The Council on Post secondary Accreditation (COPA) by the American Council on Education will be listed on The University of Akron official academic record. No grade-point value will appear on the record and no grade-point average will be calculated for the coursework listed; however, grade-point average may be considered for purposes of evaluating, ranking, or otherwise determining admissibility to the University or to specific programs. In addition, the name of the institution as well as the time period during which the courses were taken, will be listed on The University of Akron official academic record.

For courses that have been taken at an institution of higher education noted in the reference document above, the dean of the college in which the student intends to obtain a degree will specify which courses, other than general studies, will apply toward the degree requirements at the University. University College will specify which courses listed will apply toward the general education requirements.

CLEP or Advanced Placement credit posted on transcripts from previous institutions is eligible for credit at The University of Akron.

COURSE NUMBERING SYSTEM

Each course at the University has two numbers. One designates the college and department of which it is a part; one specifies the subject matter of the particular course. For instance:

3300:220 English Literature

In the above example, the first four digits of the number (3300) indicate the college and department. In this case, 3000 represents the Buchtel College of Arts and Sciences; 300 refers to the Department of English. The second set of digits (220) following the colon, indicates exactly which course in the Department of English is being specified. The course number also indicates the level at which the course is being taught and the point at which the student is ready to take the course.

An explanation of the course numbering system follows:

100-199	First-year-level courses
200-299	Second-year-level courses
300-399	Third-year-level courses
400-499	Fourth-year-level courses
500-699	Master's-level courses
600-799	J.D.-level courses
700-899	Doctoral-level courses

When approved 400-level undergraduate courses are taken for graduate credit, they become 500-level courses. A student must apply for and be admitted to the Graduate School to receive graduate credit.

NOTE: Courses listed in the Schedule of Classes published for each term contain an additional three-digit number indicating the specific section(s) offered.

GRADUATION REQUIREMENTS

Requirements for Baccalaureate and Associate Degrees

A candidate for the baccalaureate or the associate degree must:

- File an application for graduation with the registrar. If the candidate plans to complete degree requirements at the end of fall semester, submit an application by or before May 15. If the plan is to complete degree requirements at the end of spring semester, submit an application by or before September 15. Submit an application by or before February 15 for Summer Commencement.
- Earn a minimum of 128 credits for a baccalaureate degree, 64 credits for an associate degree (some programs of study may require more credits) with a minimum 2.00 grade-point average as computed by the Office of the Registrar for work attempted at the University consistent with the Repeating Courses policy. The grade-point average achieved at the time of completion of requirements for a degree will include repeated and reassessed courses which will be used to calculate rank in class and graduation honors.
- Meet all degree requirements which are in force at the time a transfer is made to a degree-granting college. If the student should transfer to another major, then the requirements should be those in effect at the time of the transfer. For a student enrolled in an associate degree program in the Community and Technical College, the requirements shall be those in effect upon entrance into the program.
- Be approved for graduation by appropriate college faculty, Faculty Senate, and Board of Trustees.
- Complete the requirements for a degree in not more than five calendar years from the date of transfer, as defined below. In the event the student fails to complete the degree requirements within five calendar years from the date of transfer, the University reserves the right to make changes in the number of credits and/or courses required for a degree.
- The date of transfer for a student in a baccalaureate program will be the date that the student is accepted by the degree-granting college. For a student enrolled in an associate degree program in the Community and Technical College, the date of transfer refers to the date of entrance into the program.
- Earn the last 32 credits in the baccalaureate degree total or 16 credits in the associate degree total in residence at The University of Akron unless excused in writing by the dean of the college in which the student is enrolled.
- Complete a minimum of 32 earned credits in the baccalaureate degree total or a minimum of 16 earned credits in the degree total in residence at The University of Akron.
- If a student who has transferred from another institution wishes to present for the student's major fewer than 14 credits earned at The University of Akron, written permission of both the dean and head of the department is required.
- Discharge all other obligations at the University.

Requirements for Additional Baccalaureate and Associate Degrees

- Meet requirements given in **Section 3**, Requirements for Baccalaureate and Associate Degrees.
- Earn a minimum of 32 credits which have not counted toward the first baccalaureate degree or 16 credits which have not counted toward the first associate degree.
- Earn the above credits in residence at the University.

Change of Requirements

To accomplish its objectives better, the University reserves the right to alter, amend, or revoke any rule or regulation. The policy of the University is to give advance notice of such change, whenever feasible.

Unless the change in a rule or regulation specifies otherwise, it shall become effective immediately with respect to the student who subsequently enters the University, whatever the date of matriculation.

Without limiting the generality of its power to alter, amend, or revoke rules and regulations, the University reserves the right to make changes in degree requirements of the student enrolled prior to the change by:

- Altering the number of credits and/or courses required in a major field of study.
- Deleting courses.
- Amending courses by increasing or decreasing the credits of specific courses, or by varying the content of specific courses.
- Offering substitute courses in same/or cognate fields.

The dean of the college, in consultation with the department or division head of the student's major field of study, may grant waivers in writing if a change in rules affecting degree requirements is unduly hard on a student enrolled before the change was effective. The action of the dean of the college in granting or refusing a waiver must be reviewed by the senior vice president and provost on his or her own motion, or at the request of the dean of the college of the student affected, or at the request of the student affected.

Credit and Grade-Point Requirements for Graduation Listed by College and Degrees Granted

Buchtel College of Arts and Sciences	Min. Cr.	Min. Grade-Point Avge. Req.
Bachelor of Arts	128	2.00
Bachelor of Science	128	2.00
Bachelor of Science (Chemistry)	128	2.30
Bachelor of Science in Cytotechnology	128	2.00
Bachelor of Science in Geography/Cartography	128	2.00
Bachelor of Science in Labor Economics	128	2.00
Bachelor of Science in Medical Technology	128	2.00
Bachelor of Science in Political Science/Criminal Justice	131	2.20
Bachelor of Arts in Geography/Travel and Tourism	128	2.00
Bachelor of Arts (Political Science)	128	2.20
Bachelor of Science in Political Science/Public Policy Management	128	2.20
College of Engineering*		
Bachelor of Science in Chemical Engineering	137	2.00
Bachelor of Science in Civil Engineering	137	2.00
Bachelor of Science in Computer Engineering	137	2.00
Bachelor of Science in Electrical Engineering	137	2.00
Bachelor of Science in Engineering	137	2.00
Bachelor of Science in Mechanical Engineering	137	2.00
Bachelor of Science in Mechanical Polymer Engineering	137	2.00
Bachelor of Construction Technology	137	2.00
College of Education**		
Bachelor of Arts in Education	128	2.50
Bachelor of Science in Education	128	2.50
Bachelor of Science in Technical Education	128	2.50
College of Business Administration***		
Bachelor of Science in Accounting	128	2.00
Bachelor of Science in Business Administration	128	2.00
Bachelor of Science in Business Administration/Advertising	128	2.00
Bachelor of Science in Business Administration/Finance	128	2.00
Bachelor of Science in Business Administration/International Business	128	2.00
Bachelor of Science in Business Administration/Marketing	128	2.00
Bachelor of Science in Industrial Management	128	2.00
College of Fine and Applied Arts		
Bachelor of Arts		
Studio Art	131	2.00
Art History	131	2.00
Bachelor of Fine Arts in Studio Art	131	2.00
Ceramics		
Drawing		
Graphic Design		
Metalsmithing		
Painting		
Photography		
Printmaking		
Sculpture		
Bachelor of Arts		
Family and Child Development	128	2.00
Food Science	128	2.00
Pre-Kindergarten	128	2.00
Child-Life Specialist	128	2.00
Bachelor of Arts in Fashion Merchandising		
Apparel Track	131	2.00
Home Furnishings Track	131	2.00
Fiber Arts Track	131	2.00
Bachelor of Science in Dietetics	137-142	2.00
Bachelor of Science in Home Economics Education	145-148	2.00
Bachelor of Arts in Interior Design	136	2.00
Bachelor of Arts in Music	131	2.00
Bachelor of Music		
Performance	128-144	2.00
History and Literature	133	2.00
Composition	133	2.00
Jazz Studies	135	2.00
Music Education	135-144	2.00
Bachelor of Arts in Communication†	128	2.00
Business and Organizational Communication†	128	2.00
Interpersonal and Public†	128	2.00
Mass Media†	128	2.00
Bachelor of Arts in Speech-Language Pathology and Audiology	128	2.00
Bachelor of Arts in Social Work	128	2.00

College of Fine and Applied Arts, continued	Min. Cr.	Min. Grade-Point Avge. Req.
Bachelor of Arts in Theatre Arts	128	2.00
Bachelor of Arts in Dance	131	2.00
Bachelor of Fine Arts in Dance	132	2.00
College of Nursing		
Bachelor of Science in Nursing	134	2.30
Community and Technical College		
Associate of Arts	64	2.00
Associate of Individualized Study	64	2.00
Associate of Labor Studies (inactive)	64	2.00
Associate of Applied Business in:		
Business Management Technology	64	2.00
Computer Information Systems	64	2.00
Hospitality Management in:		
Restaurant Management	67	2.00
Culinary Arts	72	2.00
Hotel/Motel Management	68	2.00
Hospitality Marketing/Sales	64	2.00
Marketing and Sales Technology	64	2.00
Office Administration in:		
Administrative Assistant	66	2.00
Legal Secretarial	66	2.00
International Secretarial	70	2.00
Transportation	64	2.00
Associate of Applied Science in:		
American Sign Language Interpreting and Transliterating Technology	74	2.00
Community Services Technology	64	2.00
Criminal Justice Technology	64	2.00
Drafting & Computer Drafting Technology	69	2.00
Educational Technology	64	2.00
Electronic Engineering Technology	71	2.00
Electromechanical Service Technology	64	2.00
Fire Protection Technology	64	2.00
Histologic Technology	64	2.00
Legal Assisting Technology	70	2.00
Manufacturing Engineering Technology in:		
Computer-Aided Manufacturing	64	2.00
Industrial Supervision	64	2.00
Mechanical Engineering Technology	68	2.00
Medical Assisting Technology	68	2.00
Polymer Technology	68	2.00
Radiologic Technology	74	2.00
Respiratory Care	70	2.00
Surgical Assisting Technology in:		
Surgical Technologist	64	2.00
Surveying and Construction Engineering Technology in:		
Construction Option	69	2.00
Surveying Option	69	2.00
Bachelor of Science in Automated Manufacturing Engineering Technology	133	2.00
Bachelor of Science in Electronic Engineering Technology	139	2.00
Bachelor of Science in Mechanical Engineering Technology	137	2.00
Bachelor of Science in Surveying and Mapping	137	2.00
Wayne College		
Associate of Arts	64	2.00
Associate of Science	64	2.00
Associate of Technical Studies	64	2.00
Associate of Applied Business in:		
Business Management Technology in:		
Accounting Option	67	2.00
Data Management Option/Networking	67	2.00
Data Management Option/Software	69	2.00
General Business Option	64	2.00
Sales and Services Option	68	2.00
Health Care Office Management	67	2.00
Office Administration in:		
Executive Assistant Option	66	2.00
Legal Administrative Assistant Option	64	2.00
Health Care Administrative Assistant Option	64	2.00
Associate of Applied Science in:		
Computer Service and Network Technology	67	2.00
Environmental Health and Safety Technology	66	2.00
Social Services Technology	68	2.00

* An engineering grade-point average of 2.00 is required in all engineering courses attempted (4XXX prefix).

** Grade-point average of 2.50, effective July 1, 1991, for entering freshmen.

*** A separate 2.00 is required in the major and a separate 2.00 is required in all business and economics courses.

† Grade-point average of 2.00 overall, and a separate GPA of 2.30 in all courses taken in the School of Communication.

Graduation with Honors

For a student who entered the University after December 1981 who is being awarded an initial baccalaureate degree and who has completed 60 or more credits at the University, the degree

will be designated	*if the overall grade-point average is*
Summa Cum Laude	3.80 or higher
Magna Cum Laude	between 3.60 and 3.79
Cum Laude	between 3.40 and 3.59

For a student who entered the University after December 1981 who is being awarded an initial associate degree and who has completed 30 or more credits at the University, the degree

will be designated	*if the overall grade-point average is*
with highest distinction	3.80 or higher
with high distinction	between 3.60 and 3.79
with distinction	between 3.40 and 3.59

For a student who entered the University prior to January 1982 and is being awarded an initial baccalaureate degree and who has completed 60 or more credits at the University, the degree

will be designated	*if the overall grade-point average is*
Summa Cum Laude	3.75 or higher
Magna Cum Laude	between 3.50 and 3.74
Cum Laude	between 3.25 and 3.49

For a student who entered the University prior to January 1982 and is being awarded an initial associate degree and who has completed 30 or more credits at the University, the degree

will be designated	*if the overall grade-point average is*
with distinction	3.25 or higher

Fees and Expenses

Fees subject to change without notice

Typical Annual Student Expenses

Despite the willingness of taxpayers and generous friends of the University to help support higher education, some portion of this total expense must be borne by the student. Typical costs for one year (September through May) based on an average academic load of 32 credits for the two semesters are as follows:

	Commuting Residents of Ohio	*Residents of Ohio Living on Campus*	*Non-Ohio Residents**
Undergraduate Tuition and Fees (regular load)	$3,917	$3,917	$10,157
Books/Supplies (average costs)	645	645	645
Room and Board	—	4,805†	4,805†
	$4,562	$9,367	$14,985

Following are comprehensively outlined fees for students at the University who are studying for credit and noncredit in all areas of instruction. Included also are the additional expenses required for special academic services available to students, and other miscellaneous fees, such as application and graduation fees.

It is the responsibility of the student to know the correct amount of all fees, including the non-Ohio resident surcharge.

In any question concerning fees, surcharge, or residence, it is the responsibility of the student, parents, or court-appointed guardian, to furnish such proof as may be required by The University of Akron. A student who is in doubt about residency status should consult with the University registrar.

It is the responsibility of the registrar to assess fees and surcharges at the time of registration; information given by the student at that time is used in the assessment. Each registration is later audited by the University auditor, and appropriate additional charges or refunds will be made.

All fees and surcharges are due at the time of registration or on the specified fee payment deadline. The status of the student as of the opening day of the semester or session for which registered will determine the final, correct amount of fees and surcharges.

An Installment Payment Plan for tuition and fees is available to all students. For information, see page 57 of this Bulletin.

Tuition and Fees

- Tuition:

Undergraduate	
1-11.5 credits	$147.60 per credit
12-16 credits	$1,771.25 per semester
Over 16 credits	$1,771.25 + $147.60 per credit over 16

- Tuition Surcharge:
(Nonresidents of Ohio pay the surcharge in addition to the instructional fee)*

Undergraduate	
One or more credits	$195.00 per credit

- General Fee:

Undergraduate	$15.65 per credit to a maximum of $187.10 per semester

* See The University of Akron Residency Requirements defining residency on page 58.

† Room and board rates vary by residence hall and selected board plan. For specific cost information, see Residence Halls in **Section 2** of this Bulletin.

Admission Application Fee

(Nonrefundable)	
Undergraduate	$25
Entering postbaccalaureate or graduate	$25
(Note: fee deferred for recruited graduate minority students.)	
Transient students (first enrollment only)	$25
International Students	$50
Graduate Foreign Language Reading Proficiency Exam	$50

Orientation Program Fees

Traditional Freshman Program	
Student Commuting to Program	$60
Student Staying in Residence Halls	$70
Transfer Student and Non-Traditional Student Program	
One-day Program	$35
Traditional Freshman Parents Program	
Two-day Program, Parent Staying in Residence Halls	$60
Two-day Program, Parent Commuting	$45
One-day Program, Parent attending one-day program	$35
International Student Orientation Fee	$45
Late Orientation Fee (in addition to Orientation Fee)	$25

Registration and Other Related Fees

Matriculation Fee (effective Fall 1998)
(one-time, non-refundable undergraduate fee)
Amount based on student status as of start of Fall 1998 Semester and thereafter:

Freshman (less than 32 credits completed)	$100
Sophomore (32-63.999 credits completed)	$75
Junior (64-95.999 credits completed)	$50
Senior (more than 96 credits completed)	$0

- The guidelines above will be used to determine amounts due from students returning to the University Fall 1998 and thereafter.
- High school students taking University courses and transient, unclassified, and special students will be exempt from the matriculation fee.

Administrative Fee (effective Fall 1998)	
Graduate, Law, Postbaccalaureate and Transient Students	$11/semester
Late Registration Fee	
Charged to student who has not completed registration and paid fees before close of open registration or by final date of payment	$25
Delayed Registration Fee	$10
Assessed for any continuing student (enrolled immediately preceding regular semester) who registers other than during the time specified for his or her rank/level group.	
Transcripts	
Additional "Speedy" Transcript Fee	$10
Transcript Evaluation for Certification Fee	$15
Refunds Retainer Fee	
Charged on complete/partial withdrawal from courses (maximum of $50)	$5 / credit hour
Co-op course fee	$55
International Program Fees	
Visa Form (spouse and/or dependents)	$50
Practical Training (non-enrolled students)	$35
Study Abroad (non-refundable deposit)	$50

Alternative Credit Fees

Advanced Placement Credit, per credit awarded	$5
Bypassed credit, per credit	$5
CLEP, per credit awarded	$8 (plus ETS fee paid to ETS)
Credit by Examination (undergraduate and postbaccalaureate) per credit	$21

Graduation Fees

Graduation Late Application Fee	$10
Minor Application Fee and/or Second Major Application Fee	$5

Auditors

The fees for an auditor in any course or group of courses are the same as if taken for credit.

* See The University of Akron Residency Requirements defining residency on page 58.

Miscellaneous Fees

Audiology and Speech Center
- Speech and Language Services
  - Minimum Fee $5
  - Speech/Language Screening $15
  - Therapy (per 1/2-hour session) $20
  - Special Testing (per hour) $60
  - SLP Evaluation $100
  - SLP consultation (per hour) $60
  - Group Therapy (per 1/2 hour) $15
  - Augmentative Device Evaluation $125
- Audiological Services
  - Minimum Fee $5
  - Hearing Screening (per person) $15
  - Special Testing (per hour) $60
  - Audiological Rehabilitation (per 1/2-hour session) $30
  - Audiologic Evaluation $55
  - Earmold Service (swim plugs, ear molds) $20
    (for indirect earmold orders add cost of mold)
  - Audiologic Consultation $60
  - Immitance Only (per 1/2 hour) $20
  - Hearing aid service (per 1/2 hour) $25
  - Brain Stem Evoked Potential $225
  - Assistive Listening Devices Evaluation (per 1/2 hour) $20
  - Otoacoustic Emissions $25
  - Cerumen Management (per visit) $25
  - Hearing Aid Evaluation (no purchase) $60
  - Hearing Aid Evaluation (with purchase) $200
    (selection/fitting and orientation, includes 2-week check, 1 trouble-shotting visit)

Center for Child Development (Child care facility)
- Registration:
  - Academic year $35
  - Summer session $15
  - Both summer sessions $20
- Insurance:
  - Child, per academic year $20
  - Child, per summer (all ages) $12
- Enrollment:
  - Full time, per week (after 45 hours, charged hourly) $110
  - Hourly for fewer than 15 hours per week for faculty/staff (as of Fall 1994) $4
  - Hourly for UA student families only $3
  - Hourly for 15 hours or more per week for faculty/staff (as of Fall 1994) $4
- Schedule Changes $3 ($5.50 for subsequent changes)

Center for Nursing
- Initial Comprehensive Bio/Psycho/Social History $15
- Individual 50-minute Sessions (1/4, 1/2, and extended sessions all available) $40
- Group Sessions (per session, per member) $20
- Family Sessions (three or more persons) $60
- Couple Sessions (per session) $50
- Special Services
  - Percent Body Fat Testing $10
  - Lipid profile cholestech LDX; total cholesterol, HDL, cholesterol and triglycerides Profile $15
  - Total cholesterol, cholestech LDX, LDL and HDL $12
- Massage therapy by licensed masso therapist
  - 15 minutes $10
  - 30 minutes $20
  - 50 minutes $40
- Minimum Fee $2

College of Education, Department of Physical and Health Education
- Fitness Assessment Package
  - UA Students $15
  - Faculty/Staff/Community $20
- Special Fitness Services
  - Exercise prescription $15
  - Hydrostatic weight $25
  - BIA $5
  - Skinfold $5
  - Bod Pod $25
  - EKG Stress Test $60
  - VO2 Max Test $60

College of Engineering
- Full-time Undergraduate Students (per semester) $150
- Full-time Graduate Students (per semester) $200

Counseling, Testing and Career Center
- ACT Test $25
- College Level Placement Exam Program (CLEP) $10 (plus ETS fee paid to ETS)
- Correspondence Testing $12/hr
- Miller Analogies Test $40
- Professional Consultation Fee per hour $90

Dance Institute
- Audition Fee (per 1.5 hr. class period) $17
- New Student Registration fee $10
- Refund Service Charge $25
- Academic Year (three sessions)
  - Advanced $2,667
  - Intermediate II $2,575
  - Intermediate I $1,629
  - Advanced Beginner $1,222
  - Beginner $610
  - Pre-Ballet $306
  - Adults - All classes $296
- Summer (four weeks)
  - Intermediate I (1, 2, 3, or 4 weeks) $155, $283, $408, or $513
  - Intermediate II (1, 2, 3, or 4 weeks) $187, $347, $504, or $631
  - Advanced (1, 2, 3, or 4 weeks) $206, $384, $561, or $717
  - Advanced beginner (1, 2, 3, or 4 weeks) $70, $140, $210 or $280
  - Beginner (1, 2, 3, or 4 weeks) $50, $100, $150, or $200
  - Pre-Ballet (1, 2, 3, or 4 weeks) $19, $39, $58, or $78
- Pre-schoolers $51
- Adults - beginners to intermediate I-II (all classes for 6 weeks) $55

Division of Continuing Education
- Transcript fee, first print $4
- Each additional copy $2
- Each duplicate of certificate of completion $4

English Language Institute
- Tuition fee, semester $3,000
- 8-week summer program $1,685
- Application Fee $40
- Materials fee, per level, per semester/8-week session $50/40

Health Services
- Allergy injections (subsequent injections are $1) $5
- Laboratory Tests At Cost
- Prescriptions and Medications At Cost
- Immunizations At Cost

I.D., replacement $5

"Insufficient Funds" or returned check charge and VISA/Mastercard Returns for Insufficient Funds $20

International Programs
- Optional ID cards, students $19
- Optional Id cards, teachers $20

Laboratory breakage and late service deposit (refundable) $15

Liability Insurance Fee, Student Nursing $15

Liability Insurance Fee, Allied Health Technology/Surgeon's Assistant $61.50

Liability Insurance Fee, Allied Health Technology/Other than Surgeon's Assistant $15

Library Fees (Bierce, Auburn Science and Wayne)
- Overdue materials (plus $1 fee if invoiced)
  - UA students, faculty and staff ($10 maximum) .10/day
  - Non-University borrowers ($10 maximum) .25/day
- Replacement Cost plus $20 surcharge
- Fines for recalled materials $1/day
- Fines for hourly reserve materials $.50/hour ($20 max.)
- Fines for daily reserve materials $1/day ($20 max.)
- Fines for OhioLINK loans $.50/day ($15 max.)
- Photocopy (per copy, depending on machine used) up tp .10/pg.
- Microcopy (per copy, depending on machine used) .25-.30
- Printing charges for full-text articles
  - Black and white .10/pg.
  - Color .50/pg.
- Research Service (1-hour minimum charged)
  - UA students, faculty and staff At cost
  - Others $60/hour, plus costs
- Computer-Based Search Service ($5 minimum, no refunds)
  - UA students, faculty and staff At cost
  - Others $25/hour plus costs

Locker fee ($3 refundable fall-spring semesters) $10

Locker fee ($3 refundable, spring semester only) $7

Locker fee, physical education and Schrank Hall ($3 refundable) per semester $7

Ocasek Natatorium
- Group Rental Fees
  - University groups during open building hours No charge
  - exclusive or special use (per employee, per hour) $8.50/hr.
- Swimming lessons Infant and Preschool (8 one-half hour sessions) $30
  - All other swimming lessons (8 one-half hour sessions) $25
- Racquetball and Walleyball Courts
  - University groups during normal working hours No charge
  - Outside of normal working hours, per hour, per court $5
  - Broken racquet replacement $30
  - Broken eyewear replacement $10
- Kayaking Usage Fee (for those not enrolled in UA kayaking class)
  - Single use guest pass $3
  - 10-use guest pass $20

Placement Services
- Mailing of professional credentials prepared and maintained by Placement Office for students and alumni to prospective employers. $4
- Resume Xpert-Plus software $20
- Registration Fee for alumni (covers 12-month cost of employer referrals) $25
- Vacancy Bulletin subscription for alumni (12 issues) $25
- Alumni Workshop $15

Storage Drawer Rental for Mechanical Technology ($2 refundable) $5

Transcript evaluation for Teaching Certification Fee $15

University Police Department
- Police Service Calls (for vehicle assistance) $10
- Police Report
  - 1-5 pages no charge
  - 6 or more pages .05/page
- Fingerprinting
  - Students, faculty and staff $5/card
  - All others $15/card
- Photo $5

Parking Fees

Student (enrolled for any number of credits):	
per semester (Fall and Spring)	$60
Summer session	$25
Temporary permit and one-day permits, per day, (including workshops and conferences)	$2/per day
Commercial visitor:	
per semester (Fall and Spring)	$65.75
Summer session	$40
Replacement parking permit service charge	1/2 current permit cost
Special University event parking, per vehicle, each event	Up to $4 maximum
Special non-University event parking, per vehicle, each event	Up to $5 maximum
Visiting Parking:	
meter, per hour	Up to $1 maximum
pre-arranged permit for one day	$2
Lot A, per quarter hour ($3 max)	$.25
Motorcycle permit:	
per semester (Fall and Spring)	$4
Summer Session	$4

Parking Fines:

Violations:		
(1)	Failure to display a valid permit	$5
(2)	Permit improperly displayed	$5
(3)	Parking in a area for which permit is unauthorized and/or invalid	$5
(4)	Prohibited parking marked by signs/markers (other than firelanes and handicap)	$5
(5)	Parking beyond bumper blocks or boundaries	$5
(6)	Pa on the grass	$5
(7)	Expired parking meter	$5
(8)	Visitor area without a valid ticket displayed	$5
(9)	Driving on the sidewalk	$5
(10)	Driving on the grass	$5
(11)	Exceeding posted time limit	$5
(12)	Failure to remit the Special Event Fee	$5
(13)	Failure to heed directional signs	$5
(14)	Parking in a drive (not blocking)	$10
(15)	Parking in a doorway (not blocking)	$10
(16)	Parked in a loading zone (not blocking)	$10
(17)	Parked on a sidewalk (with complainant)	$10
(18)	Not heeding officer or parking employee	$15
(19)	Prohibited parking in a firelane	$20
(20)	Blocking a dive (with complainant)	$20
(21)	Blocking a doorway (with complainant)	$20
(22)	Blocking a sidewalk (with complainant)	$20
(23)	Blocking a vehicle (with complainant)	$20
(24)	Parking in a handicap area	$50
(25)	Blocking a handicap ramp	$50
(26)	Displaying a false permit	$50
(27)	Displaying an altered permit	$50
(28)	Displaying a forged permit	$50
(29)	Displaying a lost permit	$50
(30)	Displaying a stolen permit	$50

- All fines paid after thirty (30) calendar days from date of violation — Add 20% late fee
- Vehicles will be booted for violations totaling **$40 or more**
  Boot fee: $20

Course Materials, Computing Fees*

For the following undergraduate courses, the fee noted will be assessed to cover the cost of instructional materials distributed by the instructor and computing fees:

Community and Technical College

Course Number	*Course Title*	*Credits*	*Course Fee*
2020:222	Technical Report Writing	3	$13
2020:224	Writing for Advertising	4	$15
2030:161	Math for Modern Technology	4	$8
2210:112	American Sign Language I	4	$15
2210:114	ASL Semantics and Structure I	3	$15
2210:122	American Sign Language II	4	$15
2210:126	Advanced Fingerspelling and Numbers	2	$15
2210:232	American Sign Language III	4	$15
2210:236	Consecutive Interpreting	4	$15
2210:238	American Deaf Culture	3	$15
2210:242	American Sign Language IV	4	$15
2210:244	Simultaneous Interpreting	4	$15
2210:248	Interpreting Practicum I	2	$15
2210:252	Interpreting Practicum II	3	$15
2210:254	Applied Ethics: Interpreting	4	$15

Note: Additional workshops and special topics courses offered on a rotation basis may include fees not listed here. Consult appropriate department for course material and computing fees for those classes.

Course Number	*Course Title*	*Credits*	*Course Fee*
2220:250	Criminal Case Management	6	$20
2220:291	Special Topics: Criminal Justice	1-4	$50
2220:293	Special Topics: Criminal Justice	1-4	$50
2230:104	Fire Investigation Methods	3	$20
2230:153	Principles of Fire Protection and Life Safety	3	$20
2230:205	Fire Detection and Suppression Systems I	3	$15
2230:206	Fire Detection and Suppression Systems II	3	$15
2240:124	Design in Commercial Art	3	$10
2240:130	Marker Rendering	3	$5
2240:140	Typography and Lettering	3	$10
2240:242	Advertising Layout Design	3	$25
2240:245	Designing for Production	3	$25
2240:247	Packaging Design	3	$25
2240:248	Publication Design	3	$25
2240:250	Advanced Commercial Photography	3	$25
2240:252	Professional Photographic Practicum	3	$25
2240:290	ST: Beginning Typesetting	1-3	$25
2260:100	Introduction to Community Service	3	$6
2260:150	Introduction to Gerontological Services	3	$6
2260:260	Alcohol Use and Abuse	3	$2
2260:261	Alcoholism Treatment	3	$10
2260:262	Basic Helping Skills in Alcohol Problems	4	$3
2260:263	Group Principles in Alcoholism	4	$6
2260:278	Techniques of Community Work	4	$7
2280:121	Fundamentals of Food Preparation I	4	$70
2280:122	Fundamentals of Food Preparation II	4	$70
2280:123	Meat Technology	2	$55
2280:230	Advanced Food Preparation	4	$70
2280:232	Dining Room Service and Training	2	$15
2280:233	Restaurant Operations and Management	4	$45
2280:261	Baking and Classical Desserts	3	$70
2280:262	Classical Cuisine	3	$55
2280:263	International Foods	2	$50
2290:104	Basic Legal Research and Writing	3	$30
2290:204	Advanced Legal Research	3	$30
2300:122	Introduction to Commercial Photography	3	$25
2440:101	Fundamental Computer Concepts	1	$10
2440:102	Introduction to Windows	1	$10
2440:103	Software Fundamentals	2	$15
2240:121	Introduction of Logic/Programming	3	$ 20
2440:125	Spreadsheet Software	2	$18
2440:140	Internet Tools	3	$20
2440:145	Operating Systems	3	$20
2440:160	JAVA Programming	3	$20
2440:170	Visual Basic	3	$20
2440:175	Microcomputer Application Support	3	$20
2440:180	Database Concepts	3	$20
2440:210	Client/Server Programming	3	$20
2440:234	Advanced Business Programming	3	$20
2440:245	Introduction: Database for Micros	3	$18
2440:247	Hardware Support	3	$20
2440:251	Computer Applications Projects	3	$20
2440:255	Introduction to Network Administration	3	$120
2440:256	C++ Programming	3	$20
2440:257	Microcomputer Projects	3	$20
2440:267	Micro Database Applications	3	$20
2440:268	Network Concepts	2	$15
2440:270	Network Administration	3	$75
2440:272	Network Technologies	2	$50
2440:273	Network Printing	2	$50
2440:274	Network Service and Support	3	$75
2440:275	TCP/IP Fundamentals	2	$50
2440:276	Network Advanced Administration	2	$50
2440:278	Network Directory Design and Implementation	2	$50
2530:241	Health Information Management	3	$5
2530:245	Reimbursement Payment Systems: Health Care	3	$20
2540:120	Keyboarding Skill Development	1	$10
2540:130	Introduction to Office Automation	4	$20
2540:140	Keyboarding for Non-Majors	2	$15
2540:141	WordPerfect, Beginning	2	$15
2540:150	Beginning Keyboarding	3	$20
2540:151	Intermediate Word Processing	3	$20
2540:241	Information Management	3	$20
2540:253	Advanced Word Processing	3	$20
2540:255	Legal Office Procedure I	3	$20
2540:270	Office Software Applications	4	$25
2540:271	Desktop Publishing	3	$20
2540:273	Computer Based Graphic Presentation	3	$20
2540:279	Legal Office Procedures II	4	$25
2540:281	Edit/Proofread/Transcription	2-3	$20
2540:286	Microsoft Word — Windows	3	$15
2540:290	Special Topics: Office Administration	.5- 3	$20
2560:222	Microcomputer Applications in Transportation	3	$20
2560:231	Computer Reservations I	2	$15
2560:232	Computer Reservations II	2	$15
2560:290	Special Topics: Travel Agency Procedures	1-3	$10
2600:100	Basic Electronics for Technicians	5	$20

Course Number	*Course Title*	*Credits*	*Course Fee*
2600:125	Digital Electronics for Technicians	4	$20
2600:160	Personal Computer Servicing	3	$20
2600:230	Microprocedure and Digital Technology	4	$10
2600:275	Digital Data Communication	4	$10
2730:225	Histotechnology Practicum	5	$15
2740:135	Medical Assisting Techniques I	4	$28
2740:235	Medical Assisting Techniques II	4	$50
2740:240	Medical Machine Transcription	3	$28
2770:121	Surgical Assisting Procedures I	2	$40
2770:131	Clinical Application I	2	$15
2770:151	Clinical Experience I	2	$61.50
2770:254	Clinical Experience IV	3	$61.50
2790:121	Introduction to Respiratory Care	3	$35
2790:122	Respiratory Patient Care	3	$35
2790:123	Mechanical Ventilators	3	$35
2790:131	Clinical Application I	3	$15
2790:134	Clinical Application IV	5	$15
2790:223	Advanced Respiratory Care	3	$35
2800:200	Physics for Environmental Technology	1	$25
2800:210	Technical Computations	1	$25
2800:230	Water and Atmospheric Pollution	3	$25
2800:232	Environmental Sampling Lab	2-3	$25
2820:105	Basic Chemistry	3	$25
2820:110	Physical Science for Technicians	3	$10
2820:111	Introductory Chemistry	3	$15
2820:112	Introductory and Analytical Chemistry	3	$15
2820:121	Technical Computations	1	$5
2820:131	Software Applications for Technicians	1	$8
2820:161	Technical Physics: Mechanics I	2	$15
2820:162	Technical Physics: Mechanics II	2	$15
2820:163	Technical Physics: Electricity and Magnetism	2	$10
2820:164	Technical Physics: Heat and Light	4	$10
2820:310	FORTRAN for Technologists	2	$10
2830:110	Electromechanical Devices	4	$5
2830:130	Introduction to Hydraulics and Pneumatics	3	$5
2830:210	Motion Control I	4	$5
2830:220	Motion Control II	3	$5
2830:230	Machine and Process Control	4	$5
2830:240	Industrial Computer Control	3	$5
2830:250	Programmable Controllers	3	$10
2830:260	Electrical Power and Wiring	3	$5
2830:270	Troubleshooting and Repair	3	$10
2840:112	Polymer Technology II	3	$25
2840:202	Instrumental Methods	3	$25
2840:211	Polymer Technology III	3	$25
2840:260	Compounding Methods	2	$25
2840:270	Natural and Synthetic Organic Polymers	4	$15
2860:110	Basic Electricity and Electronics	4	$20
2860:120	DC Circuits	4	$20
2860:122	AC Circuits	3	$20
2860:123	Electronic Devices	3	$20
2860:225	Electronic Device Applications	4	$20
2860:227	Measurements	2	$20
2860:231	Control Principles	3	$20
2860:237	Digital Circuits	4	$20
2860:238	Microprocessor Fundamentals	4	$20
2860:242	Machinery and Controls	4	$20
2860:251	Communications Circuits	3	$20
2860:255	Electronic Design and Construction	2	$40
2860:260	Electronic Project	2	$5
2860:270	Survey of Electronics I	3	$20
2860:271	Survey of Electronics II	3	$20
2860:352	Microprocessor Systems	4	$20
2860:400	Computer Simulations in Technology	3	$20
2860:453	Control Systems	4	$20
2870:311	Facilities Planning	2	$20
2870:470	Simulation of Manufacturing Systems	2	$20
2880:130	Work Meas. and Cost Est.	3	$10
2880:201	Robotics and Automated Manufacturing	3	$15
2880:241	Introduction to Quality Assurance	3	$15
2900:121	Fundamentals of Instrumentation	4	$10
2900:232	Process Control	3	$10
2900:239	Pulse Circuit Testing	3	$10
2920:130	Intro to Hydro and Pneum	3	$15
2920:142	Introduction to Materials Technology	3	$20
2920:245	Mechanical Design II	5	$20
2920:247	Technology of Machine Tools	3	$30
2920:252	Thermo-Fluids Lab	1	$15
2920:339	Advanced Technology of Machine Tools	2	$10
2920:346	Mechanical Design III	4	$20
2920:348	Computer Numerical Control Programming I	3	$20
2920:405	Introduction to Industrial Machine Control	3	$10
2920:448	Computer Numerical Control Programming II	3	$20
2920:470	Plastics Processing and Testing	2	$20

Note: Additional workshops and special topics courses offered on a rotation basis may include fees not listed here. Consult appropriate department for course material and computing fees for those classes.

Course Number	*Course Title*	*Credits*	*Course Fee*
2940:121	Technical Drawing I	3	$15
2940:122	Technical Drawing II	3	$25
2940:170	Surveying Drafting	3	$20
2940:180	Intro to CAD	1	$25
2940:210	Computer-Aided Drawing I	3	$45
2940:211	Computer-Aided Drawing II	3	$45
2940:250	Architectural Drafting	3	$20
2980:122	Basic Surveying	3	$45
2980:123	Surveying Field Practice	2	$55
2980:222	Construction Surveying	3	$50
2980:224	Land Surveying	3	$15
2980:225	Advanced Surveying	3	$50
2980:226	Subdivision Design	3	$25
2980:237	Materials Testing I	2	$25
2980:238	Materials Testing II	2	$25
2980:245	Cost Analysis and Estimating	3	$15
2980:250	Structural Drafting	2	$20
2980:290	Special Topics: Surveying and Construction Tech	1-2	$30
Buchtel College of Arts and Sciences			
3006:490	Workshop: Women Middle/Later Years	1-3	$15
3010:201	Society and the Environment	2	$5
3010:401	Seminar: Environmental Studies	2	$5
3100:100	Nature Study Plants	3	$5
3100:101	Nature Study Animals	3	$5
3100:103	Natural Science: Biology	4	$10
3100:104	Introduction to Ecology Laboratory	1	$5
3100:111	Principles of Biology I	4	$20
3100:112	Principles of Biology II	4	$20
3100:130	Principles of Microbiology	3	$25
3100:208	Human Anatomy and Physiology	4	$15
3100:209	Human Anatomy and Physiology	4	$15
3100:212	Genetics Laboratory	1	$15
3100:264	Anatomy and Physiology of Speech and Hearing	3	$15
3100:265	Introductory Human Physiology	4	$15
3100:331	Microbiology	4	$50
3100:342	Flora and Taxonomy	3	$10
3100:365	Histology I	3	$15
3100:366	Histology II	3	$20
3100:400	Food PLants	2	$10
3100:421	Tropical Field Biology	4	$175
3100:422	Conservation of Biological Resources	4	$5
3100:424	Freshwater Ecology	3	$15
3100:426	Applied Aquatic Ecology	4	$15
3100:433	Pathogenic Bacteriology	4	$50
3100:435	Virology	4	$50
3100:437	Immunology	4	$50
3100:440	Mycology	4	$15
3100:441	Plant Development	4	$15
3100:442	Plant Anatomy	3	$15
3100:443	Phycology	4	$15
3100:445	Plant Morphology	4	$15
3100:447	Plant Physiology	3	$15
3100:448	Economic Botany	2	$5
3100:451	General Entomology	4	$10
3100:453	Invertebrate Zoology	4	$25
3100:454	Parasitology	4	$15
3100:456	Ornithology	4	$15
3100:458	Vertebrate Zoology	4	$10
3100:461	Human Physiology	4	$25
3100:462	Human Physiology	4	$25
3100:464	General and Comparative Physiology	4	$50
3100:466	Vertebrate Embryology	4	$30
3100:467	Comp. Vertebrate Morphology	4	$25
3100:471/571	Physiological Genetics	4	$50
3100:480	Molecular Biology	3	$15
3100:485/585	Cell Physiology	4	$60
3100:494	Workshop: Basic Cell Tech and Res	1-3	$10
3100:494	Workshop: Molecular Biology High School Teaching	1-3	$15
3100:494	Workshop: Radiation Safety Instr and Comp	1-3	$10
3100:494	Workshop: Tropical Biology-Jamaica	1-3	$175
3100:495	ST: Principles of LT Microscopy	1-3	$40
3150:110/111	Introduction to General, Organic and Biochemistry/Lab	4	$25
3150:112/113	Introduction to General, Organic and Biochemistry/Lab	4	$30
3150:151/152	Principles of Chemistry I/Lab	4	$30
3150:153	Principles of Chemistry II	3	$5
3150:154	Qualitative Analysis	2	$15
3150:201	Organic Chemistry and Biochemistry I	4	$25
3150:202	Organic Chemistry and Biochemistry II	4	$25
3150:265	Organic Chemistry Laboratory I	2	$25
3150:266	Organic Chemistry Laboratory II	2	$25
3150:380	Advanced Chemistry Lab I	2	$25
3150:381	Advanced Chemistry Lab II	2	$25
3150:480	Analytical Chemistry Laboratory III	2	$30
3150:481	Advanced Chemistry Lab IV	2	$30
3250:426	Econometric Methods and Applications	3	$10
3250:427	Economic Forecasting	3	$10
3300:111	English Composition I	4	$15

Course Number	Course Title	Credits	Course Fee
3300:112	English Composition II	3	$15
3300:278	Introduction to Fiction Writing	3	$15
3300:283	Film Appreciation	3	$20
3300:378	Advanced Fiction Writing	3	$15
3300:380	Film Criticism	3	$20
3350:305	Maps and Map Reading	3	$10
3350:310	Physical and Environmental Geography	3	$10
3350:314	Climatology	3	$10
3350:340	Cartography	3	$10
3350:350	Geography of the U.S. and Canada	3	$5
3350:351	Ohio: Environment and Society	3	$5
3350:353	Latin America	3	$5
3350:356	Europe	3	$5
3350:358	Russia and Associated States	3	$5
3350:360	Asia	3	$5
3350:363	Africa South of the Sahara	3	$5
3350:403	Comp. Appl. in Geography and Planning	3	$10
3350:405	Geographic Information Systems	3	$10
3350:407	Advanced Geographic Information Systems	3	$10
3350:436	Urban Land Use Analysis	3	$10
3350:442	Thematic Cartography	3	$10
3350:444	Apps. in Cartography and Geographic Info. Systems	3	$10
3350:447	Introduction to Remote Sensing	3	$10
3350:448	Advanced Cartography	3	$10
3350:449	Advanced Remote Sensing	3	$10
3350:489	ST: Geography	1-3	$5
3350:490	Workshop: Creat. Geog. Res., K-12	1-3	$25
3350:490	Workshop: Field Trips for Educators	1-3	$10
3350:495	Soil and Water Field Studies	3	$10
3370:100	Earth Science	3	$10
3370:101	Introductory Physical Geology	4	$10
3370:102	Introductory Historical Geology	4	$10
3370:103	Natural Science: Geology	3	$10
3370:121	Dinosaurs	1	$5
3370:122	Mass Extinctions-Geology	1	$5
3370:123	Interpreting Earth's Geologic History	1	$5
3370:124	Plate Tectonics: The New Geology	1	$5
3370:125	Earthquakes: Why, Where, and When	1	$5
3370:126	Natural Disasters and Geology	1	$5
3370:127	The Ice Age and Ohio	1	$5
3370:128	Geology of Ohio	1	$5
3370:129	Medical Geology	1	$5
3370:130	Geologic Record — Climate Change	1	$5
3370:131	Geology and Society	1	$5
3370:132	Gemstones and Precious Metals	1	$5
3370:133	Caves and Reefs	1	$5
3370:134	Hazardous and Nuclear Waste Disposal	1	$5
3370:135	Geology of Energy Resources	1	$5
3370:136	Earth's Oceans	1	$5
3370:137	Earth's Atmosphere and Weather	1	$5
3370:138	Planetary Geology	1	$5
3370:200	Environmental Geology	3	$10
3370:201	Exercises in Environmental Geology I	1	$10
3370:202	Geology of National Parks	3	$10
3370:203	Exercises in Environmental Geology II	1	$10
3370:230	Crystallography and Non-Silicate Mineralogy	3	$15
3370:231	Silicate Mineralogy and Petrology	3	$15
3370:301	Engineering Geology	3	$15
3370:310	Geomorphology	3	$25
3370:324	Sedimentation and Stratigraphy	4	$25
3370:350	Structural Geology	4	$25
3370:360	Introductory Invertebrate Paleontology	4	$25
3370:371	Oceanography	4	$25
3370:405	Archaeological Geology	3	$25
3370:410	Regional Geology of North America	3	$25
3370:411	Glacial Geology	3	$25
3370:421	Coastal Geology	3	$25
3370:425	Principles in Sedimentary Basin Analysis	3	$25
3370:432	Optical Mineralogy and Introductory Petrography	3	$25
3370:433	Advanced Petrography	3	$25
3370:435	Petroleum Geology	3	$25
3370:436	Coal Geology	3	$25
3370:437	Economic Geology	3	$25
3370:441	Fundamentals of Geophysics	3	$15
3370:446	Exploration Geophysics	3	$15
3370:450	Advanced Structural Geology	3	$25
3370:462	Advanced Paleontology	3	$25
3370:463	Micropaleontology	3	$25
3370:470	Geochemistry	3	$25
3370:472	Stable Isotope Geochemistry	3	$25
3370:474	Groundwater Hydrology	3	$25
3370:481	Analytical Methods in Geology	2	$10
3370:484	Geoscience Information Acquisition and Management	1	$5
3450:208	Introduction to Discrete Mathematics	4	$5
3450:221	Analytical Geometry and Calculus I-Honors	4	$5
3450:222	Analytical Geometry and Calculus II-Honors	4	$5
3450:289	ST: Analytical Geometry and Calculus III Lab	1-3	$5
3450:427	Introduction Numerical Analysis	3	$10
3450:428	Numerical Linear Algebra	3	$10
3450:429	Numerical Solutions: Ordinary Differential Equations	3	$5
3450:430	Numerical Solutions for Partial Differential Equations	3	$5
3450:435	Systems of Ordinary Differential Equations	3	$10
3450:489	T:Math Software Sciences Comp	1-3	$15
3460:125	Descriptive Computer Science	2	$15
3460:126	Introduction Basic Programming	3	$20
3460:201	Introduction Fortran Programming	3	$15
3460:202	Introduction Cobol Programming	3	$15
3460:205	Introduction Pascal Programming	3	$15
3460:206	Introduction to C Programming	3	$20
3460:208	Introduction to C ++	3	$20
3460:209	Introduction Computer Science	4	$20
3460:210	Data Structures and Algorithms I	4	$20
3460:302	Programming Applications with Cobol	3	$15
3460:306	Assembly Language Programming	3	$20
3460:307	Applied Systems Programming	3	$20
3460:316	Data Structures and Algorithms II	3	$20
3460:330	Survey of Programming Languages	3	$25
3460:401	Fundamentals of Data Structures	3	$25
3460:406	Intro to C and UNIX	3	$25
3460:408	Windows for Programming	3	$25
3460:418	Introduction Discrete Structures	3	$15
3460:420	Structured Programming	3	$20
3460:421	Introduction to Object-Oriented Programming	3	$20
3460:426	Operating Systems	3	$25
3460:428	UNIX System Programming	3	$25
3460:430	Theory Programming Languages	3	$25
3460:435	Analysis of Algorithms	3	$15
3460:440	Compiler Design	3	$25
3460:455	Data Communications and Computer Networks	3	$25
3460:457	Computer Graphics	3	$25
3460:460	Artificial Intelligence and Heuristic Programming	3	$25
3460:465	Computer Organization	3	$15
3460:467	Microprocessor Programming and Interfacing	3	$25
3460:470	Automata, Computability, and Formal Languages	3	$15
3460:475	Data-Base Management	3	$15
3460:489	ST: Computer Science	1-3	$25
3470:260	Basic Statistics	3	$25
3470:261	Introductory Statistics I	2	$10
3470:262	Introductory Statistics II	2	$10
3470:280	Introduction to Statistical Computing	2	$10
3470:461	Applied Statistics I	4	$10
3470:462	Applied Statistics II	4	$10
3470:480	Statistical Computer Applications	3	$15
3500:101	Beginning Japanese I	4	$10
3500:101	Beginning Swahili I	4	$10
3500:102	Beginning Japanese II	4	$10
3500:102	Beginning Swahili II	4	$10
3500:201	Intermediate Japanese I	3	$10
3520:101	Beginning French I	4	$10
3520:102	Beginning French II	4	$10
3520:201	Intermediate French I	3	$10
3520:315	French Phonetics	3	$10
3530:101	Beginning German I	4	$10
3530:102	Beginning German II	4	$10
3530:201	Intermediate German I	3	$10
3550:101	Beginning Italian I	4	$10
3550:102	Beginning Italian II	4	$10
3550:201	Intermediate Italian I	3	$10
3570:101	Beginning Russian I	4	$10
3570:102	Beginning Russian II	4	$10
3570:201	Intermediate Russian I	3	$10
3580:101	Beginning Spanish I	4	$10
3580:102	Beginning Spanish II	4	$10
3580:201	Intermediate Spanish I	3	$10
3650:261	Physics for Life Sciences I	4	$20
3650:262	Physics for Life Sciences II	4	$20
3650:291	Elementary Classical Physics I	4	$20
3650:292	Elementary Classical Physics II	4	$20
3650:310	Electronics and Measurement Techniques	3	$20
3650:322	Intermediate Lab I	3	$25
3650:323	Intermediate Lab II	3	$25
3650:451	Advanced Laboratory I	3	$25
3650:452	Advanced Laboratory II	3	$25
3650:468	Digital Data Acquisition	3	$20
3700:201	Introduction to Political Research	3	$10
3700:301	Advanced Political Research	3	$10
3700:370	Public Administration: Concepts and Practices	4	$10
3700:440	Survey Research Methods	3	$10
3700:442	Methods of Policy Analysis	3	$10
3750:110	Quantitative Methods in Psychology	4	$15
3750:220	Introduction: Experimental Psychology	4	$15
3750:446	Research Des and Analysis	4	$15

Note: Additional workshops and special topics courses offered on a rotation basis may include fees not listed here. Consult appropriate department for course material and computing fees for those classes.

College of Engineering

Full-time undergraduate students who have declared an engineering major are charged a $150 fee for Fall and Spring semesters. This includes students who are enrolled in the College of Engineering as well as students in University College who have declared an engineering major. A prorated fee, based upon the number of credit hours, taken, will be charged to all part-time undergraduate engineering students.

Remaining individual undergraduate course fees within the college are as follows:

Course Number	Course Title	Credits	Course Fee
4100:101	Tools for Engineering	3	$20
4200:294	Chemical Engineering Design II	1-2	$30
4200:394	Chemical Engineering Design III	1-3	$30
4200:442	Plant Design	4	$30
4200:461	Solids Processing	3	$30
4200:463	Pollution Control	3	$30
4200:494	Design Project	3	$30
4200:497	Honors Project	1-3	$30
4200:499	Research Project	1-3	$30
4300:314	Geotechnical Engineering	3	$50
4300:323	Water Supply and Pollution Control	4	$50
4300:341	Hydraulic Engineering	3	$50
4300:361	Transportation Engineering	3	$50
4300:380	Engineering Materials Lab	2	$50
4300:401	Steel Design	3	$50
4300:403	Reinforced Concrete Design	3	$50
4300:418	Soil and Rock Exploration	3	$50
4300:423	Chemistry for Environmental Engineers	3	$50
4300:448	Hydraulics Lab	1	$50
4300:468	Highway Materials	3	$50
4300:482	Special Projects	1-3	$50
4400:263	Switching & Logic	4	$50
4400:320	Basic Electrical Engineering	4	$30
4400:340	Electric Circuits Laboratory	1	$50
4400:361	Electronic Design	4	$50
4400:365	Microprocessor Systems	3	$50
4400:371	Control Systems I	4	$50
4400:385	Energy Conversion Lab	2	$50
4400:455	Microwaves	4	$50
4400:465	Programmable Logic	3	$50
4400:470	Microprocessor Interfacing	3	$50
4400:472	Control Systems II	4	$50
4400:484	Power Electronics Laboratory and Design Project	2	$50
4400:497	Honors Project	1-3	$30
4600:165	Tools for Mechanical Engineering	3	$50
4600:401	Design of Energy Systems	2	$50
4600:461	Design of Mechanical Systems	2	$50
4600:483	Mechanical Engineering Measurements Laboratory	2	$50
4600:484	Mechanical Engineering Laboratory	2	$50
4980:352	Field Management	2	$30
4980:358	Advanced Estimating	3	$30
4980:462	Mechanical Service Systems	3	$30
4980:463	Electrical Service Systems	3	$30
4980:470	Advanced Construction Graphics	3	$30

College of Education

5050:210	Characteristics of Learners	3	$10
5050:211	Teaching Learning Strategies	3	$10
5050:310	Instructional Design	3	$10
5050:311	Instructional Resources	3	$35
5050:320	Diversity in Learners	3	$10
5050:330	Classroom Management	3	$10
5050:410	Professional Issues in Educations	3	$10
5100:211	Fundamental Education Computer Skills	1	$10
5100:412	Design & Production of Instructional Materials	3	$35
5100:420	Introduction to Computer-Based Education	3	$35
5100:480	ST: Educational Media Technology	1-4	$35
5100:490	Workshop: Motivation for Educators	1-3	$15
5100:490	Workshop: Photography for Educators	1-3	$45
5100:490	Workshop: Video Production for Educators	1-3	$35
5200:220	Visual Arts Culture in Elementary Education	1	$15
5200:250	Developing Processes of Investigation	3	$10
5200:320	Visual Arts Applications Elem. School	3	$10
5200:325	Teaching Phonics in Language Literacy Field Experience	2	$10
5200:333	Science for the Early Childhood/Middle Level Grades	3	$25
5200:337	Teaching of Reading	3	$10
5200:345	Teaching Phonics in Language Literacy	4	$10
5200:365	Comp. Musicianship for the Early Childhood/Middle Level	3	$45
5200:370	Early Childhood Center Lab	2	$15
5200:415	Microcomputer Applications for Elementary Teachers	3	$35
5200:425	Evaluating Language Literacy Field Experience	1	$10
5200:445	Evaluating Language Literacy	3	$10
5200:450	Integrated Curriculum Applications	3	$15
5200:490	Workshop: Actual Problem Solving & Hand Cal.	1-3	$5
5200:490	Workshop: Dev. Appr. Pract/Ear Child	1-3	$15
5200:490	Workshop: Establishing a Balanced Reading Program	1-3	$10
5200:490	Workshop: Evaluating Language-Based Instruction	1-3	$10
5200:490	Workshop: Literature in the Classroom	1-3	$10
5200:490	Workshop: Making Language Learning Come Alive	1-3	$10
5200:490	Workshop: Surviving Substitute Teaching K-8	1-3	$10
5200:490	Workshop: Teaching Beyond Text	1-3	$10
5200:490	Workshop: Child Abuse	2	$5
5200:490	Workshop: Use Lit. Dev. Integ. Instr.	1-3	$10
5200:490	Workshop: Language & Literature Multi Settings	1-3	$20
5200:495	Student Teaching	4-8	$25
5200:496	Student Teaching	1-6	$25
5300:425	Advanced Micro App. in Secondary Schools	3	$35
5300:445	Microcomputer Literacy for Secondary Teachers	2	$35
5300:490	Workshop: Adv. Instructional Techniques for Language	1-3	$20
5300:490	Workshop: Educational Strategies Urban Schl. Environ.	1-3	$5
5300:490	Workshop: French Language Immersion	1-3	$7
5300:490	Workshop: Improving 9th Grade Math Prof. Scores	1-3	$5
5300:490	Workshop: Teaching Film/TV Survival Skills	1-3	$50
5300:490	Workshop: Tech. & Instr. In Foreign Languages	1-3	$15
5300:490	Workshop: Whole Language Teaching Teachers	1-3	$25
5300:490	Workshop: Lng. Art Eng. Tch. Best Pr.	1-3	$25
5300:495	Student Teaching	4-11	$50
5400:420	Technology and Media: Technical Instruction	3	$20
5400:430	Sys. Curr. Design: Technical Instruction	3	$20
5400:435	Instructional Techniques Technical Education	4	$20
5400:490	Workshop: Diversity in the Workplace	1-3	$20
5540:123	Bowling	.5	$15
5540:124	Canoeing	.5	$10
5540:127	Golf	1	$30
5540:133	Lifeguard Training	1	$15
5540:137	Sailing	.5	$10
5540:155	Basic Kayaking	1	$10
5550:102	PE Act. I:Fitness/Cont. Act.	2	$20
5550:193	Methods of Teaching Physical Educations	3	$15
5550:201	Kinesiology	2	$10
5550:202	Diagnosis of Motor Skills	2	$15
5550:211	First Aid and CPR	2	$20
5550:235	Concepts of Motor Development	3	$10
5550:240	Care and Prevention of Athletic Injury	3	$20
5550:245	Adapted Physical Education	3	$10
5550:302	Physiology of Exercise	3	$20
5550:334	Games/Rhythms Elementary School Child	3	$5
5550:335	Movement Experience for the Elementary Child	3	$5
5550:336	Motor Learning and Development Early Child	2	$5
5550:340	Care and Prevention: Athletic Injury	3	$20
5550:490	Workshop: Bonding Music/Physical Education	1-3	$10
5550:490	Workshop: Child at Risk	1-3	$10
5550:490	Workshop: Child in Sport I	1-3	$10
5550:490	Workshop: Child in Sport II	1-3	$10
5550:490	Workshop: Child in Sport: Psych CNOS	1-3	$6
5550:490	Workshop: CI: Health/Wellness	1-3	$5
5550:490	Workshop: Classroom Learning/Mgt. I	1-3	$6
5550:490	Workshop: Classroom Problems	1-3	$5
5550:490	Workshop: Coaching Effect	1-3	$10
5550:490	Workshop: Concepts Strength Training	1-3	$5
5550:490	Workshop: Co-op/Creative Thinking	1-3	$10
5550:490	Workshop: Current Concepts in Strength Training	1-3	$5
5550:490	Workshop: Dev. Successful Child I	1-3	$6
5550:490	Workshop: Easing Stress: CH/TCH I	1-3	$6
5550:490	Workshop: Education for Healthy Heart	1-3	$6
5550:490	Workshop: Education Healthy Heart	1-3	$6
5550:490	Workshop: Encourage At-Risk Child	1-3	$6
5550:490	Workshop: Enhance Teacher Perf./Esteem	1-3	$6
5550:490	Workshop: Enhancing Athletic Performance	1-3	$6
5550:490	Workshop: Ethical Issues - Sports	1-3	$10
5550:490	Workshop: Health Ed. Update	1-3	$7
5550:490	Workshop: HIV/AIDS Update	1-3	$7
5550:490	Workshop: Law/Van: Violence and the Unruly	1-3	$6
5550:490	Workshop: Leg. Pit. Teacher/Coach Avoi	1-3	$6
5550:490	Workshop: Leg. Rights of Profession	1-3	$6
5550:490	Workshop: Legal Update - Educators	1-3	$5
5550:490	Workshop: Maximizing Athletic Performance	1-3	$5
5550:490	Workshop: Max Ind Spt/Mot Performance	1-3	$6
5550:490	Workshop: Menalt Strategies for Peak Performance	1-3	$6
5550:490	Workshop: Methods of Teaching Health Ed. Update	1-3	$
5550:490	Workshop: Motivational Strategies: Sports/Exercise	1-3	$7
5550:490	Workshop: Motivating the At-Risk Child	1-3	$6
5550:490	Workshop: Motivation, Lang. and Arts	1-3	$6
5550:490	Workshop: New Games, Init, Co-op Games	1-3	$6
5550:490	Workshop: Nurture Success Children	1-3	$5
5550:490	Workshop: Personal Watercraft	1-3	$5
5550:490	Workshop: Psych Aspects of Coaching	1-3	$8
5550:490	Workshop: Rehab. and Adv. Taping Techniques	1-3	$6
5550:490	Workshop: Sport Perf. Enhance I	1-3	$12
5550:490	Workshop: Sport Perf. Enhance II	1-3	$10
5550:490	Workshop: Strategies for Classroom Mgt.	1-3	$10
5500:490	Workshop: Strength/Conditioning Fundamentals	1-3	$10
5550:490	Workshop: Stress in Child's World	1-3	$6
5550:490	Workshop: Tai Chi and Stress Reduction	1-3	$3
5550:490	Workshop: Teaching 3 R's Movt.	1-3	$6
5550:490	Workshop: Teacher's Role/Disruptive Student	1-3	$10

Note: Additional workshops and special topics courses offered on a rotation basis may include fees not listed here. Consult appropriate department for course material and computing fees for those classes.

Course Number	Course Title	Credits	Course Fee
5550:490	Workshop: Teachers Should Know About Law	1-3	$6
5550:490	Workshop: Techniques for Develop Peace School	1-3	$6
5550:490	Workshop: Tow Mor. Success Child	1-3	$6
5550:490	Workshop: Violence Prevention Strategies	1-3	$5
5550:490	Workshop: Water Safety Skills: Sailing	1-3	$10
5550:490	Workshop: Water Safety Skills: Canoe	1-3	$10
5550:490	Workshop: World Health Issues	1-3	$5
5550:495	Student Teaching for Physical and Health Education	10	$50
5560:490	Workshop: Co-op Learning Resident OE	1-3	$12
5560:490	Workshop: Inst: Self/Conc Enhance	1-3	$12
5560:490	Workshop: OE the Sea Coast Environ.	1-3	$7
5560:494	Workshop: African Safari	4	$2,600
5570:101	Personal Health	2	$3
5570:202	Stress, Life-Style, and Health	3	$10
5570:323	Methods and Materials Teaching Health Ed.	3	$10
5610:403	Student Teaching Colloquium	1	$20
5610:461	Technology and Materials Application in Special Ed.	3	$15
5610:463	Assessment in Special Education	3	$17.50
5610:465	Neuromotor Aspects of Physical Disabilities	3	$10
5610:470	Clinical Practicum in Special Education	3	$15
5610:480	Student Teaching: Developmentally Handicapped	12	$50
5610:481	Student Teaching: Special Learning Disabled	12	$50
5610:483	Student Teaching: Severe Behavior Handicapped	12	$50
5610:484	Student Teaching: Multihandicapped	12	$50
5610:485	Student Teaching: Special Education	8	$50
5610:490	Workshop: Assess and Eval:EC SE	1-3	$25

College of Business Administration

All courses at the undergraduate level in the College of Business Administration are assessed a fee of $2 for one-credit classes, $3.50 for two-credit classes, or $5 for three- or four-credit classes.

College of Fine and Applied Arts

7100:120	Fundamentals of Sculpture	3	$25
7100:121	Three-Dimensional Design	3	$35
7100:130	Fundamentals of Screen Printing	3	$25
7100:132	Drawing for Designers	3	$5
7100:150	Fundamentals of Ceramics	3	$25
7100:160	Fundamentals of Jewelry	3	$25
7100:170	Fundamentals of Photography	3	$25
7100:184	Graphic Design Principles	3	$5
7100:185	Introduction to Computer Graphics	3	$40
7100:213	Introduction to Lithography	3	$35
7100:214	Introduction to Screen Printing	3	$25
7100:215	Introduction to Relief Printing	3	$40
7100:216	Introduction to Intagilo Printing	3	$40
7100:221	Design Applications	3	$25
7100:222	Introduction to Sculpture	3	$50
7100:245	Introduction to Polymer Acrylic Painting	3	$50
7100:247	Introduction to Oil Painting	3	$50
7100:249	Figure Painting	2	$50
7100:254	Introduction to Ceramics	3	$35
7100:266	Introduction to Metalsmithing	3	$40
7100:268	Color in Metal	3	$35
7100:275	Introduction to Photography	3	$35
7100:285	Electronic Still Imaging	3	$40
7100:288	Typography	3	$30
7100:289	Intermediate Computer Design	3	$40
7100:317	Printmaking II	3	$40
7100:318	Portrait/Fashion Photography	3	$35
7100:320	Illustration/Advertising Photography	3	$35
7100:321	Figurative Sculpture	3	$50
7100:322	Sculpture II	3	$50
7100:323	Lost Wax Casting	3	$85
7100:331	Drawing III	3	$50
7100:348	Painting II	3	$50
7100:354	Ceramics II	3	$35
7100:366	Metalsmithing II	3	$45
7100:368	Colors in Metals II	3	$35
7100:375	Photography II	3	$55
7100:376	Photographics	3	$35
7100:380	Graphic Video	3	$25
7100:383	Multimedia Production	3	$40
7100:385	Computer Modeling and Animation	3	$40
7100:386	Packaging Design	3	$35
7100:387	Advertising Layout Design	3	$10
7100:388	Production for Designers	3	$40
7100:418	Advanced Printmaking	3	$40
7100:422	Advanced Sculpture	3	$50
7100:431	Drawing IV	3	$50
7100:449	Advanced Painting	3	$50
7100:454	Advanced Ceramics	3	$50
7100:466	Advanced Metalsmithing	3	$35
7100:475	Advanced Photography	3	$35
7100:477	Advanced Photography: Color	3	$40
7100:478	Advanced Commercial Photography	3	$35
7100:479	Professional Photographic Practices	3	$25
7100:480	Advanced Graphic Design	3	$40
7100:481	Design X Nine	3	$40
7100:482	Corporate Identity and Graphic Systems	3	$40
7100:483	Graphic Design Presentation	3	$40
7100:488	Publication Design	3	$40
7100:489	Special Topic: Studio Art	3	$40
7100:490	Workshop: Advanced Type and Image	1-4	$20
7100:490	Workshop: Resources in Art Education	1-4	$2
7100:491	Architectural Presentations I	3	$5
7100:492	Architectural Presentations II	3	$5

Note: Additional workshops and special topics courses offered on a rotation basis may include fees not listed here. Consult appropriate department for course material and computing fees for those classes.

Course Number	Course Title	Credits	Course Fee
7400:121	Textiles	3	$6
7400:123	Fundamentals of Construction	3	$12
7400:125	Principles for Apparel Design	3	$12
7400:133	Nutrition Fundamentals	3	$5
7400:139	Fashion and Furnishing Industry	3	$10
7400:141	Food for the Family	3	$35
7400:147	Orient. Prof. Studies in Home Ec. and Family Ecology	1	$5
7400:158	Introduction to Interior Design	3	$20
7400:219	Clothing Communication	3	$7
7400:221	Evaluation of Apparel and Household Textiles	3	$10
7400:225	Textiles	3	$10
7400:239	The Fashion Industry	3	$7
7400:245	Food Theory and Application I	3	$25
7400:246	Food Theory and Application II	3	$25
7400:257	AutoCAD for Interior Design	3	$40
7400:258	Light in Man-Made Environments	3	$20
7400:259	Family Housing	3	$10
7400:265	Child Development	3	$5
7400:280	Creative Activities: Pre-Kindergarten Children	4	$3
7400:305	Advanced Construction and Tailoring	5	$12
7400:311	Studies in Fiber Art	3	$12
7400:315	Food Systems Management I – Clinical	2	$50
7400:316	Science of Nutrition	4	$5
7400:328	Nutrition in Medical Science I	4	$10
7400:329	Nutrition in Medical Science I – Clinical	2	$50
7400:331	Interior Design Theory	3	$20
7400:332	Human Factors/Interior Space	3	$20
7400:333	Space Planning and Programming	3	$20
7400:334	Specifications for Interiors I	3	$20
7400:335	Specifications for Interiors II	3	$20
7400:336	Principle and Practice: Interior Design	3	$15
7400:337	Interior Design Contract Documents	3	$20
7400:340	Meal Service	2	$35
7400:352	Strategic Merchandise Plan	3	$10
7400:362	Family Life Management	3	$5
7400:390	Family Relationships in Middle and Later Years	3	$5
7400:403	Advanced Food Preparation	3	$15
7400:414	Food Systems Management II – Clinical	3	$120
7400:418	History of Furniture and Interiors I	3	$10
7400:419	History of Furniture and Interiors II	3	$10
7400:420	Experimental Foods	3	$20
7400:423	Professional Image Analysis	3	$12
7400:424	Nutrition in Life Cycle	3	$5
7400:425	Advanced Textiles	3	$25
7400:426	Therapeutic Nutrition	4	$15
7400:428	Nutrition in Medical Science II	5	$10
7400:429	Nutrition in Medical Science II – Clinical	3	$120
7400:432	Interiors, Textiles, and Product Analysis	3	$5
7400:433	Senior Design Studio I	3	$20
7400:434	Senior Design Studio III	3	$20
7400:435	Principles and Practices of Interior Design	3	$10
7400:436	Textile Conservation	3	$15
7400:437	Historic Costume to 1800	3	$10
7400:438	History of Fashion Since 1780	3	$10
7400:447	Senior Seminar: Critical Issues in Prof. Development	1	$10
7400:449	Flat Pattern Design	3	$12
7400:450	Demonstration Techniques	2	$5
7400:451	Child in the Hospital	4	$5
7400:455	Practicum: Est. & Supv. a Child-Life Program	3	$20
7400:458	Senior Design Studio II	3	$20
7400:459	Senior Design Studio IV	3	$20
7400:470	Food Industry: Analysis and Field Study	3	$5
7400:475	Analysis of Food	3	$30
7400:476	Developments in Food Science	3	$5
7400:478	Senior Portfolio Review	1	$10
7400:479	The NCIDQ Examination	1	$10
7400:480	Community Nutrition I	3	$20
7400:481	Community Nutrition I - Clinical	1	$30
7400:482	Community Nutrition II	3	$5
7400:483	Community Nutrition II - Clinical	1	$30
7400:484	Orientation to Hospital Setting	2	$5
7400:485	Seminar: Art and Science of Wine	1-3	$30
7400:485	Seminar: Comm & Ed Skills Dietetics	1-3	$15
7400:485	Seminar: Dec. Elementary Interior Design	1-3	$10
7400:485	Seminar: Equipment and Demonstration Tech.	1-3	$5

Course Number	*Course Title*	*Credits*	*Course Fee*
7400:485	Seminar: FD Chem. and Disease	1-3	$5
7400:485	Seminar: Food Safety: Microb IS	1-3	$5
7400:485	Seminar: Food Safety Overview	1-3	$5
7400:485	Seminar: Human Factors and Interior Space	1-3	$15
7400:485	Seminar: Interior Design Theories	1-3	$10
7400:485	Seminar: Introduction to Italian Cuisine	1-3	$25
7400:485	Seminar: Landscape Architecture	1-3	$20
7400:485	Seminar: NCIDQ Prep	1-3	$10
7400:485	Seminar: Office Design	1-3	$15
7400:485	Seminar: Senior Design Synthesis	1-3	$15
7400:485	Seminar: Senior Design Studio I	1-3	$20
7400:485	Seminar: Senior Design Studio II	1-3	$20
7400:485	Seminar: Senior Design Studio II	1-3	$20
7400:485	Seminar: Senior Design Studio IV	1-3	$20
7400:485	Seminar: Spec. for Interior Design	1-3	$10
7400:485	Seminar: Update - FD Addictives	1-3	$5
7400:485	Seminar: Update - Fat Substitute	1-3	5
7400:485	Seminar: Vocational H E Teaching Methods	1-3	$6
7400:485	Seminar: Vocational Methods: Job Training	1-3	$6
7400:485	Seminar: Women and Food	1-3	$10
7400:487	Sports Nutrition	3	$2
7400:488	Practicum in Dietetics	1-3	$25
7400:490	Workshop: American Cooking	1-3	$35
7400:490	Workshop: Building Adolescent Life Skills	1-3	$5
7400:490	Workshop: Child Abuse	2	$5
7400:490	Workshop: Children and Loss	1-3	$7
7400:490	Workshop: Children and Stress	1-3	$7
7400:490	Workshop: Children and Television	1-3	$2
7400:490	Workshop: Child in Marketplace	1-3	$5
7400:490	Workshop: Development of Humor in Children	1-3	$5
7400:490	Workshop: Dynamics of Self Esteem	1-3	$4
7400:490	Workshop: Ecology of Trauma	1-3	$4
7400:490	Workshop: Families: An Intl. Perspective	1-3	$2.50
7400:490	Workshop: Family Stress/Coping	1-3	$30
7400:490	Workshop: Functional/Dysfunctional Families	1-3	$4
7400:490	Workshop: Health Issues of Children	1-3	$5
7400:490	Workshop: Helping Families Cope with Stress	1-3	$5
7400:490	Workshop: Helping Families Cope	1-3	$5
7400:490	Workshop: Helping Adolescent Sex Offenders	1-3	$4
7400:490	Workshop: Home Computer Productivity	1-3	$10
7400:490	Workshop: Home Word Processing	1-3	$10
7400:490	Workshop: Images for Success	1-3	$12
7400:490	Workshop: Images for Success	1-3	$25
7400:490	Workshop: Joy of Health Food Preparation	1-3	$35
7400:490	Workshop: Marriage and Divorce	1-3	$4
7400:490	Workshop: Nurturing Children	1-3	$5
7400:490	Workshop: Nutrition for Consumers	1-3	$5
7400:490	Workshop: Nutrition Update	1-3	$5
7400:490	Workshop: Parent/Adolescent Communication	1-3	$4
7400:490	Workshop: Positive Discuss For Parents	1-3	$3
7400:490	Workshop: Relationship Building	1-3	$4
7400:490	Workshop: Stress Management	1-3	$4
7400:490	Workshop: Success Parent & Group Parent	1-3	$6
7400:490	Workshop: Success Parenting-90s	1-3	$6
7400:490	Workshop: Teaching Nutrition and Wellness	1-3	$2
7400:490	Workshop: Teenagers as Parents	1-3	$7
7400:490	Workshop: WordPerfect Application for Families	1-3	$25
7400:495	Internship: Guided Experiences in Child-Life Program	8	$15
7400:497	Internship: Fashion Retailing	2-6	$18
7400:497	Internship: Interior Design	2-6	$25
7500:100	Fundamentals of Music	2	$20
7500:101	Introduction to Music Theory	2	$20
7500:104	Classic Piano I	2	$15
7500:105	Classic Piano II	2	$15
7500:141	Ear Training/Sight Reading I	1	$15
7500:142	Ear Training/Sight Reading II	1	$15
7500:154	Music Literature I	2	$10
7500:155	Music Literature II	2	$10
7500:254	String Instruments Techniques I	2	$20
7500:255	String Instruments Techniques II	2	$20
7500:261	Keyboard Harmony I	2	$15
7500:262	Keyboard Harmony II	2	$15
7500:275	Flute/Double Reed Class	1	$15
7500:276	Trumpet and French Horn Methods	1	$15
7500:277	Clarinet and Saxophone Methods	1	$15
7500:297	Introduction to Music Education	2	$10
7500:340	Teaching General Music	2	$40
7500:341	Curriculum Innovations in General Music	3	$10
7500:342	Elementary Instrumental Music	2	$20
7500:343	Secondary Instrumental Music	2	$20
7500:345	Low Brass Methods	1	$20
7500:351	Music History I	3	$10
7500:352	Music History II	3	$10
7500:353	Electronic Music	3	$25
7500:453	Music Software Survey and use	2	$25
7500:490	Workshop: Kodaly IB	1-3	$10
7500:490	Workshop: Adv. MIDI Applications	1-3	$40
7500:490	Workshop: Alexander Technique	1-3	$50
7500:490	Workshop: Appalachian Clog and Dance	1-3	$11
7500:490	Workshop: Art of Steel Drum Making	1-3	$12
7500:490	Workshop: Brass Teach Techniques for Pu	1-3	$10
7500:490	Workshop: Choral Reading Session	1-3	$20
7500:490	Workshop: Class Guitar Career Fest	1-3	$30
7500:490	Workshop: Comp Drl Dsgn Impr Perc	1-3	$15
7500:490	Workshop: Comp MIDI for Musician	1-3	$40
7500:490	Workshop: Comp MIDI Synth for Ed	1-3	$40
7500:490	Workshop: Comp Skills/Vocal Tchrs	1-3	$15
7500:490	Workshop: Computerized Drill Design	1-3	$15
7500:490	Workshop: Cond Gest: Inf Chor Tone	1-3	$25
7500:490	Workshop: Development of MS & HS Jazz Band	1-3	$20
7500:490	Workshop: Early Childhood: Philosophy	1-3	$20
7500:490	Workshop: Enhanced Con Amer Lit/Music	1-3	$15
7500:490	Workshop: Excellence in Perf I	1-3	$150
7500:490	Workshop: Excellence in Perf II	1-3	$190
7500:490	Workshop: Finale Music Typeset	1-3	$40
7500:490	Workshop: Handbell Techniques	1-3	$10
7500:490	Workshop: Health Dyn. Class. Speak	1-3	$20
7500:490	Workshop: Healthful Classroom Spe	1-3	$5
7500:490	Workshop: Junior High Inst. Techniques	1-3	$10
7500:490	Workshop: Kodaly IA	1-3	$20
7500:490	Workshop: Kodaly IB	1-3	$20
7500:490	Workshop: March Band Techniques	1-3	$15
7500:490	Workshop: March Band Workshop	1-3	$25
7500:490	Workshop: Middle School General Music: Chal.	1-3	$20
7500:490	Workshop: Multi Story Telling	1-3	$10
7500:490	Workshop: Music for Holistic Living	1-3	$5
7500:490	Workshop: Music for Special Needs	1-3	$10
7500:490	Workshop: ORFF Level IIA	1-3	$20
7500:490	Workshop: ORFF Level IIB	1-3	$20
7500:490	Workshop: Percussion for Band Directors	1-3	$10
7500:490	Workshop: Summer Brass Performance for High School	1-3	$6
7500:490	Workshop: Summer Clarinet Instrument	1-3	$20
7500:490	Workshop: Teaching Music - Early Childhood	1-3	$20
7500:490	Workshop: Teaching Young Singers	1-3	$20
7500:490	Workshop: Techniques for Beginning Bands	1-3	$20
7500:490	Workshop: Voice Types, Opera Role	1-3	$20
7500:490	Workshop: Woodwinds Fnd Tps Sch Dir.	1-3	$20
7510:126	Marching Band	1	$10
7520:021-069	Applied Music for Non-Majors	2	$95
7520:021-069	Applied Music for Non-Majors	4	$190
7520:121-469	Applied Music for Music Majors	2	$95
7520:121-469	Applied Music for Music Majors	4	$190
7600:201	News Writing	3	$10
7600:204	Editing	3	$5
7600:206	Feature Writing	3	$5
7600:280	Media Production Techniques	3	$15
7600:282	Radio Production	3	$10
7600:283	Television Production	3	$15
7600:288	Film Production	3	$15
7600:301	Advanced Newswriting	3	$5
7600:302	Broadcast Newswriting	3	$5
7600:303	Public Relations Writing	3	$10
7600:304	Editing	3	$5
7600:306	Magazine Writing	3	$5
7600:307	Commercial Electronic Publishing	3	$10
7600:309	Promotional Publications	3	$10
7600:345	Business and Professional Speaking	3	$5
7600:361	Audio Recording Techniques	3	$10
7600:362	Video Camera and Recording	3	$15
7600:368	Basic Audio and Video Editing	3	$15
7600:383	Advanced Television Production	3	$15
7600:405	Media Copywriting	3	$10
7600:462	Advanced Media Writing	3	$5
7600:463	Corporate Video Design	3	$10
7600:466	Audio and Video Editing	3	$15
7600:467	Directing Video Productions	3	$15
7600:468	Advanced Audio and Video Editing	3	$15
7600:492	Corporate Video Practicum	2-6	$15
7600:493	Electronic Media Production	3	$15
7700:350	Entrance Practicum	3	$15
7700:351	Speech-Language Screening Practicum	2	$15
7700:352	Clinical Practicum: Aural Rehab	1	$10
7700:440	Augmentative Communication	3	$10
7700:450	Assessment of Communicative Disorders	3	$15
7700:451	Audiology Screening Practicum	2	$15
7700:461	O&A: Public School Speech-Lang. and Hr. Pr.	2	$5
7800:106	Intro to Scenic Design	3	$5
7800:107	Introduction to Stage Costuming	3	$12
7800:263	Scene Painting	3	$5
7800:265	Basic Stagecraft	3	$10
7800:301	Introduction to Theatre/Film	3	$3
7800:307	Advanced Stage Costuming	3	$12
7800:480	Independent Study	1-3	$5
7900:119	Modern I: Introduction to Modern Dance I	2	$5
7900:120	Modern II: Introduction to Modern Dance II	2	$5
7900:124	Ballet I: Introduction to Ballet I	2	$5

Course Number	Course Title	Credits	Course Fee
7900:125	Ballet II: Introduction to Ballet II	2	$5
7900:130	Jazz Dance I: Introduction to Jazz Dance I	2	$5
7900:144	Tap Technique I: Introduction to Tap I	2	$5
7900:145	Beginning Tap Styles	2	$5
7900:200	Viewing Dance	3	$5
7900:219	Modern III: Intermediate Beginner A	2	$5
7900:220	Modern IV: Intermediate Beginner B	2	$5
7900:224	Ballet III: Intermediate Beginner A	3	$5
7900:225	Ballet IV: Intermediate Beginner B	3	$5
7900:230	Jazz Dance II: Introduction to Jazz Dance II	2	$5
7910:101	Classical Ballet Ensemble	1	$5
7910:102	Character Ballet Ensemble	1	$5
7910:103	Contemporary Dance Ensemble	1	$5
7910:104	Jazz Dance Ensemble	1	$5
7910:105	Musical Comedy Ensemble	1	$5
7910:106	Opera Dance Ensemble	1	$5
7910:107	Experimental Dance Ensemble	1	$5
7910:108	Choreographer's Workshop	1	$5
7910:109	Ethnic Dance Ensemble	1	$5
7910:110	Period Dance Ensemble	1	$5
7910:111	Touring Ensemble	1	$5
7920:122	Ballet V: Intermediate Principles	5	$5
7920:141	Pointe I	2	$5
7920:222	Ballet VI: Advanced Intermediate Technique	5	$5
7900:228	Modern V: Intermediate Modern Dance A	3	$5
7920:229	Modern VI: Intermediate Modern Dance B	3	$5
7920:241	Pointe II	2	$5
7920:246	Intermediate Tap Styles	2	$5
7920:316	Choreography I	2	$5
7920:317	Choreography II	2	$5
7920:320	Dance Notation	2	$5
7920:322	Ballet VII: Principles of Advanced Technique	5	$5
7920:328	Modern VII: Advanced Modern Dance A	3	$5
7920:329	Modern VIII: Advanced Modern Dance B	3	$5
7920:334	Pas De Deux I	2	$5
7920:341	Pointe III	2	$5
7920:342	Men's Class	2	$5
7920:351	Jazz Dance Styles	2	$5
7920:416	Choreography III	2	$5
7920:417	Choreography IV	2	$5
7920:422	Ballet VIII: Advanced Technique Performance	5	$5
7920:434	Pas De Deux II	2	$5
7920:451	Advanced Jazz Dance Styles	2	$5
7920:490	Workshop in Dance	1-3	$5
7920:497	Independent Study in Dance	1-3	$5
7920:498	Senior Honors Project in Dance	1-3	$5

College of Nursing

Course Number	Course Title	Credits	Course Fee
8200:205	Nursing: Orientation	1	$25
8200:210	Basic Concepts of Nursing	4	$40
8200:215	Professional Role Development	3	$15
8200:220	Foundations of Nursing Practice	5	$85
8200:225	Health Assessment	3	$85
8200:315	Pathophysiology: Nurses	2	$15
8200:325	Cultural Dimensions of Nursing	2	$15
8200:330	Nursing Pharmacology	3	$15
8200:336	Concepts of Professional Nursing	4	$15
8200:350	Nursing of the Childbearing Family	5	$53
8200:360	Nursing Care of Adults	5	$53
8200:370	Nursing Care of Older Adults	5	$53
8200:380	Mental Health Nursing	5	$23
8200:405	Nursing Care of Healthy Individuals	5	$15
8200:410	Nursing Families with Children	5	$55
8200:415	Nursing of Individuals with Complex Health Problems	5	$15
8200:430	Nursing in Complex/Critical Situations	3	$55
8200:435	Nursing Research	3	$10
8200:440	Nursing of Communities	5	$25
8200:445	Nursing Leadership for Client Care	2	$15
8200:446	Professional Nursing Leadership	5	$15
8200:450	Senior Nursing Practicum	3	$45
8200:455	Professional Issues	2	$15
8200:460	Issues and Roles: Profession of Nursing	3	$25
8200:465	Concepts and Theories: Profession of Nursing	3	$25
8200:470	Community Health Nursing	4	$25
8200:485	Leadership and Management Roles: Prof. of Nursing	5	$25

Installment Payment Plan

This plan is designed to spread registration and University housing fees into as many as four installments (two during a summer term) depending on when the application is received. An Application Service Charge of $17 per contract for registration fees and $17 per contract for University housing fees is assessed for the Installment Payment Plan (IPP). If a payment is not received on the due date, a late payment penalty is assessed at $20 per payment for registration fees or $40 per payment if University housing is included. These fees are subject to change.

For applications received up to and including the published semester fee deadline, a 30-percent down payment is required with three follow-up installments at 20 percent, 25 percent and 25 percent respectively. Applications received after the fee deadline and up to the first day of classes will require a 50-percent down payment with two follow-up installments of 25 percent each. For summer terms, the down payment is 30 percent plus one installment at 70 percent or less, depending on the amount of direct application. If the direct application of financial aid for the fall or spring semester is greater than 30 percent and is used as a down payment, the remaining balance will be billed in one, two or three equal payments, depending on when the student registers. Installments are billed monthly starting approximately 30 days after the start of classes.

Financial aid may be used to pay the down payment. If the amount of aid is greater than the required down payment, the entire aid amount must be used as the downpayment. The remaining installment balance will be billed either in two or three equal payments, depending on the registration period.

Application forms are included with the Student Fee Invoice or may be obtained in Spicer Hall 105 or by calling (330) 972-5100.

Student Health and Accident Insurance

Student health and accident insurance designed specifically for a student of The University of Akron is required of all residence hall students and all international students except those who present proof that they already have similar coverage. Other students carrying nine or more credits, or graduate students carrying six or more credits may purchase this insurance, at the same annual individual rate, through the Student Health Services Office.

Veterans Expenses

A disabled veteran who is eligible for admission to the University may register for courses without payment of fees if the disabled veteran has been authorized for training by the V.A. If the disabled veteran has not been authorized, payment of all fees is required. However, the University will return to the veteran the payment made when the official authorization is received.

A non-disabled veteran must pay fees at the time of registration. The non-disabled veteran will receive direct payment from the V.A. after enrollment has been certified under the provision of USC Title 38.

An Ohio Veterans Bonus Commission recipient may arrange with the Accounts Receivable Office to have the Ohio Bonus Commission billed directly for tuition charges only.

Dependents of a veteran covered under other provisions of USC Title 38 must pay fees at the time of registration. The V.A. will make direct payment to the payee.

Regulations Regarding Refunds – Credit/Noncredit

All fees, e.g., instructional, general, parking, etc., are subject to change without notice. Students shall be charged fees and/or tuition and other fees in accordance with schedules adopted by the Board of Trustees. Registration does not automatically carry with it the right of a refund or reduction of indebtedness in cases of failure or inability to attend class or in cases of withdrawal. The student assumes the risk of all changes in business or personal affairs.

Fees Subject to Refund – Credit

Certain fees are subject to refund.

- Instructional fee (tuition) and nonresident surcharge.
- General fee.
- Course materials and computing fee
- Student parking fee (only if permit is returned).
- Student teaching fee.
- Laboratory breakage and late service deposit.
- Residence hall fees (note: subject to special policy).

Amount of Refund – Credit

Amount of refund is to be determined in accordance with the following regulations and subject to course instructor/adviser signature requirements contained in The University of Akron's official withdrawal policy:

- **In full**
  - if the University cancels the course;
  - if the University does not permit the student to enroll or continue except for disciplinary reasons. No refund will be granted to a student dismissed or suspended for disciplinary reasons;
  - if the student dies before or during the term; is drafted into military service by the United States; is called to active duty; or if the student enlists in the National Guard or Reserve prior to the beginning of the term. Notice of induction or orders to active duty is required if the student is called to active duty. A student who enlists voluntarily for active duty should see "in part" below.
- **In part**
  - less $5 per enrolled credit to a maximum of $50 if the student requests official withdrawal from all credit courses on or before the Sunday (midnight) which begins the second week of the enrolled term. (Note: If a semester begins other than on a Monday, the maximum refund period will extend to seven (7) days from the beginning of the semester. Example: Semester begins on Tuesday, the maximum refund period will end at midnight on the following Monday.)
  - if the student requests official withdrawal after the Sunday (Midnight) which begins the second week of the fall or spring semesters, the following refund percentages apply:

During the second week of the semester	70%
During the third week of the semester	50%
During the fourth week of the semester	30%
During the fifth week of the semester	20%
Thereafter	0%

  - if the student requests official withdrawal after the Sunday (Midnight) which begins the second week of the semester of any Summer Session the following refund percentages apply:

During the second week of the summer session	40%
Thereafter	0%

- refunds for course sections which have not been scheduled consistent with either the standard 15-week fall/spring semester or the five-week summer term scheduling pattern will be handled on a pro rata basis according to the number of days of the section (class, institute, or workshop) which have passed compared to the number of days said section has been scheduled to meet.
- Refunds will be determined as of the date of formal withdrawal unless proof is submitted that circumstances beyond control of the student, e.g., hospital confinement, prevented the filing of the formal withdrawal earlier, in which case the refund will be determined as of said circumstance. The student assumes responsibility for filing for a refund.
- Refunds will be mailed as soon as possible. Refund checks are subject to deduction for any amount owed to The University of Akron by the student.

Refund Policy for Non-Credit Courses

If a non-credit course is canceled by The University of Akron, a full refund will be issued. Withdrawal requests received up to three (3) business days prior to the first class meeting will result in a full refund less a $10 processing charge, or an opportunity to transfer to another course. Thereafter, withdrawal requests received up to the beginning of the second class meeting will receive a 50% refund. No refunds are issued after the second day of classes. Exceptions to this policy are noted in the non-credit schedule of classes. Substitutions may also be accepted in lieu of a refund.

Refunds for non-credit courses are determined by the date the withdrawal request is received. The refund period cannot be extended if the student fails to attend the first class. Charge cards and refund checks will be processed promptly. Parking permits must be returned to the Continuing Education office to receive a refund.

Residence Hall Refunds

Refund/Release and Forfeiture Policy

A Contract for Housing Accommodations and Food Services at The University of Akron which is terminated by the student, or otherwise terminated by The University of Akron, is subject to the following refund provisions:

- A full refund of any prepaid fees (including the $150 deposit) and release of other financial liability therefore under the following circumstances:
  - Graduation of the student from the University.
  - Academic dismissal of the student from the University.
  - Non-attendance or complete withdrawal by the student from the University prior to the start of the Contract term (EXCEPT the advance rental payment of $150, which shall be forfeited). The $150 prepayment will be refunded for new entering students when notification of intent to cancel the Contract is received prior to May 15 for the following fall semester.
  - In the event mandatory or recommended participation in academic programs of the University requires the student to commute regularly beyond the Akron metropolitan area (e.g., student teaching or co-op assignments).
- With a partial refund of prepaid fees (EXCEPT the $150 prepayment) according to the Refund Schedule below, and release of financial liability for subsequent semesters covered by the Contract term, in the event the student completely withdraws from the University after the start of the Contract term. In such instances, the student shall not be liable for further forfeiture.
- With a partial refund of prepaid fees according to the Refund Schedule below:
  - In the event the University, in its sole discretion, terminates the Contract for reasons related to the orderly operation of the residence halls, or for reasons relating to the health, physical, or emotional safety and well-being of the student, or for reasons relating to the health and well-being of the persons or property of other students, faculty, staff, or University property. In such instances the student shall not be liable for further forfeitures and shall be released of further financial liability beyond the date of termination.
  - In the event the student terminates the Contract for any reason, except that as set forth below, prior to the end of the terms thereof but continues to be enrolled as a student at the University. In addition, if the student has contracted for any subsequent semester beyond that semester in which the Contract is terminated, the student shall pay $200 as forfeiture for Contract termination.
  - In the event that the student is dismissed or suspended from the University for disciplinary reasons in accordance with laws or rules and regulations of the University's Board of Trustees; or, if the student is placed on terms of disciplinary probation in accordance with laws or rules and regulations of the Board of Trustees, whereby such terms of probation prohibit the student from residing in University housing accommodations.

These conditions do not release the student from financial liability for any fees which are due not later than the effective dates of such termination, dismissal, suspension, or probation.

Refund Schedule

During the second week of the semester 70%
During the third week of the semester 50%
During the fourth week of the semester 30%
During the fifth week of the semester 20%
Thereafter .....no refund

Notice Requirements

All notices of intent to terminate the Housing Accommodations and Food Services Contract must be submitted in writing to the Department of Residence Life and Housing. If the student is a minor (under the age of 18 years), the written notification of termination must be cosigned by the student's parent or legal guardian.

THE UNIVERSITY OF AKRON RESIDENCY REQUIREMENTS

Payment of a nonresident tuition surcharge is required of any student who does not qualify as a permanent resident of Ohio as defined by Section 3333-1-10 of the Ohio Revised Code

A. **Intent and Authority**

1. It is the intent of the Ohio Board of Regents in promulgating this rule to exclude from treatment as residents, as that term is applied here, those persons who are present in the state of Ohio primarily for the purpose of receiving the benefit of a state-supported education.
2. This rule is adopted pursuant to Chapter 119 of the Revised Code, and under the authority conferred upon the Ohio Board of Regents by Section 3333.31 of the Revised Code.

B. **Definitions**

For purposes of this rule:

1. A "resident of Ohio for all other legal purposes" shall mean any person who maintains a 12-month place or places of residence in Ohio, who is qualified as a resident to vote in Ohio and receive state welfare benefits, and who may be subjected to tax liability under Section 5747.02 of the Revised Code, provided such person has not, within the time prescribed by this rule, declared himself or herself to be or allowed himself or herself to remain a resident of any other state or nation for any of these or other purposes.
2. "Financial support" as used in this rule, shall not include grants, scholarships, and awards from persons or entities which are not related to the recipient.
3. An "institution of higher education" as used in this rule shall mean any university, community college, technical institute or college, general and technical college, medical college or private medical or dental college which receives a direct subsidy from the state of Ohio.
4. For the purpose of determining residency for tuition surcharge purposes at Ohio's state-assisted colleges and universities, "domicile" is a person's permanent place of abode; there must exist a demonstrated intent to live permanently in Ohio, and a legal ability under federal and state law to reside permanently in the state. For the purpose of this policy, only one (1) domicile may be maintained at a given time.
5. For the purpose of determining residency for tuition surcharge purposes at Ohio's state-assisted colleges and universities, an individual's immigration status will not preclude an individual from obtaining resident status if that individual has the current legal status to remain permanently in the United States.

C. **Residency for subsidy and tuition surcharge purposes**

The following persons shall be classified as residents of the state of Ohio for subsidy and tuition surcharge purposes:

1. A dependent student, at least one of whose parents or legal guardian has been a resident of the state of Ohio for all other legal purposes for 12 consecutive months or more immediately preceding the enrollment of such student in an institution of higher education.
2. A person who has been a resident of Ohio for the purpose of this rule for at least 12 consecutive months immediately preceding his or her enrollment in an institution of higher education and who is not receiving, and has not directly or indirectly received in the preceding 12 consecutive months, financial support from persons or entities who are not residents of Ohio for all other legal purposes.
3. A dependent child of a parent or legal guardian or the spouse of a person who, as of the first day of a term of enrollment, has accepted full-time self-sustaining employment and established domicile in the State of Ohio for reasons other than gaining the benefit of favorable tuition rates. Documentation of full-time employment and domicile shall include both of the following documents:
   a. A sworn statement from the employer or the employer's representative on the letterhead of the employer or the employer's representative certifying that parent or spouse of the student is employed full-time in Ohio.

b. A copy of the lease under which the parent or the spouse is the lessee and occupant of rented residential property in the state; a copy of the closing statement on residential real property located in Ohio of which parent or spouse is the owner and occupant; or if parent or spouse is not the lessee or owner of the residence in which he or she has established domicile, a letter from the owner of the residence certifying that parent or spouse resides at that residence.

D. **Additional criteria which may be considered in determining residency for the purpose may include but are not limited to the following:**

1. Criteria evidencing residency:
   a. if a person is subject to tax liability under Section 5747.02 of the Revised Code;
   b. If a person qualifies to vote in Ohio;
   c. if a person is eligible to receive state welfare benefits;
   d. if a person has an Ohio driver's license and/or motor vehicle registration.
2. Criteria evidencing lack of residency:
   a. if a person is a resident of or intends to be a resident of another state or nation for the purposes of tax liability, voting, receipt of welfare benefits, or student loan benefits (if the loan program is only available to residents of that state or nation);
   b. if a person is a resident or intends to be a resident of another state or nation for any purpose other than tax liability, voting, or receipt of welfare benefits.

E. **Exceptions to the general rule of residency for subsidy and tuition surcharge purposes.**

1. A person who is living and is gainfully employed on a full-time or part- time and self-sustaining basis in Ohio and who is pursuing a part-time program of instruction at an institution of higher education.
2. A person who enters and currently remains upon active duty status in the United States military service while a resident of Ohio for all other legal purposes and his or her dependents shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile.
3. A person on active duty status in the United States military service who is stationed and resides in Ohio and his or her dependents shall be considered residents of Ohio for these purposes.
4. A person who is transferred by his or her employer beyond the territorial limits of the fifty states of the United States and the District of Columbia while a resident of Ohio for all other legal purposes and his or her dependents shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile as long as such person has fulfilled his or her tax liability to the state of Ohio for at least the tax year preceding enrollment.
5. A person who has been employed as a migrant worker in the state of Ohio and his or her dependents shall be considered a resident for these purposes provided such person has worked in Ohio at least four months during each of the three years preceding the proposed enrollment.

F. **Procedures**

1. A dependent person classified as a resident of Ohio for these purposes (under the provisions of Section C. 1 of this rule) and who is enrolled in an institution of higher education when his or her parents or legal guardian removes their residency from the State of Ohio shall continue to be considered a resident during continuous full-time enrollment and until his or her completion of any one academic degree program.
2. In considering residency, removal of the student or the student's parents or legal guardian from Ohio shall not, during a period of 12 months following such removal, constitute relinquishment of Ohio residency status other wise established under paragraphs C. 1. or C. 2. of this rule.
3. For students who qualify for residency status under C.3., residency status is lost immediately if the employed person upon whom resident student status was based accepts employment and establishes domicile outside Ohio less than 12 months after accepting employment and establishing domicile in Ohio.
4. Any person once classified as a nonresident, upon the completion of 12 consecutive months of residency, must apply to the institution he or she attends for reclassification as a resident of Ohio for these purposes if such person in fact wants to be reclassified as a resident. Should such person present clear and convincing proof that no part of his or her financial support is or in the preceding 12 consecutive months has been provided directly or indirectly by persons or entities who are not residents of Ohio for all other legal purposes, such person shall be reclassified as a resident. Evidentiary determinations under this rule shall be made by the institution which may require, among other things, the submission of documentation regarding the sources of a student's actual financial support.
5. Any reclassification of a person who was once classified as a nonresident for these purposes shall have prospective application only from the date of such reclassification.
6. Any institution of higher education charged with reporting student enrollment to the Ohio Board of Regents for state subsidy purposes and assessing the tuition surcharge shall provide individual students with a fair and adequate opportunity to present proof of his or her Ohio residency for purposes of this rule. Such an institution may require the submission of affidavits and other documentary evidence which it may deem necessary to a full and complete determination under this rule.

Financial Aid

Financial aid programs were developed by the federal and state governments as well as by institutions of postsecondary education to assist students from families with limited resources to meet educational expenses. The primary purpose of financial aid is to ensure that no one is denied the opportunity of a college education because of financial need.

When applying for financial aid at The University of Akron, the Office of Student Financial Aid determines a budget that best suits the needs of the student. The budget includes direct costs that must be paid to the University (instructional and general fees and room and board in the residence halls) and variable expenses such as transportation and personal expenses.

Generally, financial aid is provided in three forms: gift aid, loans, and work. It is not unusual for a student to have all three forms of aid. This is called a "financial aid package." If a person receives a proper financial aid package, it is assumed that the family will not be expected to contribute more than is reasonable for a family member's education. The word "family" is crucial because the financial aid system assumes that the family will work together to assist a family member meet college expenses.

MISSION STATEMENT

The mission of the Office of Student Financial Aid is to assist students in procuring the financial aid they qualify for in order to promote their academic, social, cultural, personal and physical growth and development.

In the Office of Student Financial Aid, we are aware of the changing needs of today's college student. Therefore, we are committed to assisting students in meeting their financial obligations to The University of Akron.

SOURCES OF AID

To meet the needs of the financial aid applicant there are a number of sources from which aid can be received. The following programs represent those sources of aid for which The University of Akron selects recipients and/or distributes the funds. The application(s) for these programs can be obtained at the Office of Student Financial Aid, located in Spicer Hall, 119.

Federal Programs

Federal Pell Grant

The Pell Grant is the foundation of student financial aid. The grant is awarded to the student by the federal government. After applying for the grant, the student will receive a Student Aid Report (SAR), and the University will receive the information electronically as long as the student listed The University of Akron as a college choice on the application. The office then calculates the amount of the grant, which is based on financial need and enrollment status (full- or part-time). If The University of Akron is not listed as a college choice, contact the Office of Student Financial Aid for additional instructions.

Federal Supplemental Educational Opportunity Grant

The Federal Supplemental Educational Opportunity Grant (FSEOG) is a federal grant that is awarded by The University of Akron. The amount of the grant is determined by the school attended and is based on the need and the costs at that school. Entering freshmen and continuing students must have a 2.00 grade-point average and an early application to be eligible for the FSEOG.

Federal College Work-Study Program

The College Work-Study Program (FCWSP) is a program that provides an eligible student with a job on campus or, in limited cases, an off-campus job related to community service. Eligibility for FCWSP is determined on the basis of need. The office determines the amount of money that can be earned and places the student in a suitable job. The student and job supervisor adapt working hours to meet the student's class schedule. Students must have a 2.00 grade-point average and an early application to be eligible for federal work study.

Federal Perkins Loan

The Federal Perkins Loan Program offers low-interest, long-term loans for an eligible student. Eligibility and loan amounts are determined by the office on the basis of need. This federal loan must be repaid, beginning nine months after ceasing to be at least a half-time student. Interest at five percent is calculated at the time repayment of the loan begins. Entering freshmen and continuing students must have a 2.00 grade-point average to be eligible for the Perkins Loan and an early application.

Federal Subsidized Stafford Loan

This program offers low-interest loans to an eligible student on the basis of financial need. After a Free Application for Federal Student Aid (FAFSA) has been received from the need analysis processor and processed by the University, an Award Proposal will be sent to the student. The Award Proposal will estimate potential eligibility for the loan. While the student is in school, the interest is paid by the federal government.

Federal Unsubsidized Stafford Loan

This loan is not based on financial need. The combination of loans under both Subsidized and Unsubsidized Stafford cannot exceed the maximum eligibility for the entire year. Interest will begin accumulating on the unsubsidized portion immediately. Steps for application are the same as the Federal Subsidized Stafford Loan.

Nursing Student Loan

A low-interest federal loan is available to an eligible student who is pursuing the Bachelor of Science in Nursing. It is based on need, and the amounts are determined by the Office of Student Financial Aid. Repayment begins nine months after ceasing to be a half-time student. Interest upon repayment is five percent.

Federal PLUS Loan

This loan is available to parents of dependent students. Unlike the other federal loan programs, eligibility is not based on financial need. Low monthly payments for this variable-interest rate loan begin 30-60 days after loan receipt unless alternative arrangements are made with the lender. Applications may be obtained at the University or by contacting your local lending institution.

ROTC Scholarships

Two- and three-year scholarships paying tuition, fees, flat rates for books each semester, and subsistence allowances of $100 per month are available to full-time students. Contact the Army or Air Force offices for additional information.

State Programs

Ohio Instructional Grant (OIG)

The OIG is available to an eligible undergraduate student who is an Ohio resident. Eligibility is based on family income. The grant is awarded by the Ohio Board of Regents. If eligible, the school will receive an award notice to disburse funds to the student. The student must complete the FAFSA to apply for the grant.

Ohio Academic Scholarship

The state of Ohio awards scholarships each year to a graduating senior from each high school in Ohio. The scholarship must be used at a college in Ohio. The amount is $1,000 and is renewable for four years.

Ohio National Guard Scholarship

This scholarship is available to the student who enlists in the Ohio National Guard. Contact a local recruiter for information.

Ohio War Orphans Scholarship

Scholarships are available to a student whose father or mother was a veteran from Ohio and has been disabled or deceased. For information contact the Ohio Board of Regents at (888) 833-1133 or (614) 644-7420.

University Programs

Scholarships

The University offers scholarships to the student with high academic achievement. Academic scholarships are awarded to the continuing student as well as the outstanding high school student who plans to enroll. These academic scholarships are renewable each year based on continued high academic performance. A University Scholarship Application must be submitted, but a need analysis form is not required.

Scholarships for Excellence are targeted to new high school graduates who are residents of the State of Ohio, with a minimum score of 26 on the ACT or 1100 on the SAT and are in the top 10 percent of their graduating class after seven semesters. Must enroll full-time (at least 12 credit hours) each semester.

Presidential Scholarships are targeted to students in the top three percent of their high school graduating class and in the upper ten percent nationally in test scores. Approximately 60 scholarships are awarded each year to new freshmen.

The **Honors Program** targets scholarships to students with at least a 3.5 high school grade-point average and in the upper ten percent nationally in test scores. The scholarships are competitive, and interviews are required.

National Merit Finalists are awarded full scholarships for the freshmen year and full tuition scholarships for each year thereafter of undergraduate education.

General Academic Scholarships and **Diversity Scholarships** are awarded to continuing and outstanding high school students who do not qualify for Presidential or Honors Program scholarships.

Two- and three-year **ROTC Scholarships** paying tuition, fees, flat rates for books each semester, and subsistence allowances of $100 per month are available to full-time students. Contact the Army or Air Force offices for additional information.

Installment Payment Plan

The University offers an installment Payment Plan (IPP) to the student who needs temporary help in paying tuition and housing. This must be repaid in full before the end of the term for which the money was borrowed. Information and applications are available at the IPP Office (Spicer Hall 105) (330) 972-5100.

Student Employment

Check the "Student Job Board" outside of Spicer 119 for on- and off-campus part-time job listings. Register for the applicant pool in Spicer 119, or call (330) 972-7405.

Application for Financial Aid

To apply for the Federal Pell Grant, Ohio Instructional Grant, Federal Supplemental Educational Opportunity Grant, Federal Perkins Loan, Nursing Student Loan, Federal Stafford Loan (Subsidized and Unsubsidized), and the Federal College Work-Study Program, the student must complete and submit the Free Application for Federal Student (FAFSA) or the Renewal Application to the Federal Processor. Applications are available in January for the following school year. Applications can also be completed on the World Wide Web at www.fafsa.ed.gov. For technical assistance, call 1-800-801-0576.

Computation of Financial Aid

Government formulas determine what the family may be able to contribute toward the student's education. This amount is called the family contribution. Some of the key factors involved in computing the family contribution are as follows:

- Family income.
- Family assets.
- Family size.
- Number of family members in college.
- Medical bills.
- Unusual expenses.

The difference between the cost of education and the family contribution is called the unmet need. The unmet need is the amount the Office of Student Financial Aid attempts to cover through various financial aid programs to assist a student in meeting educational costs.

Notification of Award

A student will be notified of the aid package by a Financial Aid Award Proposal sent to the mailing address. If questions arise regarding your Financial Aid Award Proposal, either call or write the office for clarification. The Award Proposal must be returned to the Office of Student Financial Aid only if the student is declining some or all of the aid offered.

Distribution of Aid

Most financial aid will be applied directly to the tuition fee invoice. Awards are based on full-time enrollment (12 semester credits). If the student is not taking at least 12 credits, contact the Office of Student Financial Aid so that financial aid may be adjusted.

The student is awarded aid for the entire academic year; however, the aid is disbursed proportionately each semester. A brochure giving specific instructions will be included with the student's award proposals. If the student's aid exceeds the direct costs, the difference is given to the student prior to the beginning of each semester to assist with other educational expenses such as transportation, housing, books, etc.

The student must maintain satisfactory enrollment status to be eligible for all aid.

Revision of Awards

After receipt of the financial aid award, situations may arise which may necessitate a revision in the aid package. A revision may result from receipt of an outside scholarship; a dramatic change in the family income such as unemployment of a parent or a divorce, etc. If family circumstances change, contact the Office of Financial Aid so the aid package may be reviewed.

Eligibility for Aid as it Applies to Certain Classifications of Students

Transfer Students

Beginning with the 1998-99 award year, The University of Akron Office of Student Financial Aid will use the National Student Loan Database (NSLDS), eliminating the need to request individual financial aid transcripts (FATs) for most Title IV student aid applicants. The exception will be mid-year transfers (anyone who has attended any other college after January 1, 1998). The University does reserve the right to request FATs for any applicant that displays conflicting information.

If a student is transferring to the University during the academic year and has received a Federal Pell Grant and/or OIG from the prior school, the student must:

- Request a duplicate Student Aid Report from Federal Pell Programs. This duplicate Student Aid Report must be sent to the Office of Student Financial Aid before any funds can be disbursed to the student. Instructions for receiving a duplicate Student Aid Report can be obtained from the office.
- Have the former Financial Aid Office provide a transfer request to have the OIG transferred to The University of Akron. Federal Perkins Loans, Federal College Work-Study Programs, Federal Supplemental Educational Opportunity Grants, and scholarships do not automatically transfer. The student must reapply for these programs at The University of Akron.

Graduate Students, Law Students, and Postbaccalaureate Students

A graduate or professional student who has already received a bachelor's degree can apply for the Federal Subsidized and Unsubsidized Stafford Loans, the Federal Pell Grant, Ohio Instructional Grant and Federal Supplemental Educational Opportunity Grant cannot be received. Postbaccalaureate students can only apply for Subsidized and Unsubsidized Stafford Loans.

A graduate assistantship is available through various graduate departments. A graduate fellowship and other graduate awards are distributed by the Graduate School; therefore, a separate application is required.

Guest Students

A guest student is one who is taking classes at The University of Akron but will receive the degree at another institution. Contact the Office of Student Financial Aid for written instructions on how to receive financial aid.

International Students

A student in the United States on a student or other temporary visa is not eligible for any state or federal financial aid. Application for scholarships, short-term loans, and some types of employment may be made.

Veterans

A veteran may be eligible to receive educational benefits through the Veterans Administration and should contact the Veterans Office at the University for details.

Student Rights and Responsibilities

It is your right as a student to know and understand all aspects of your financial aid award. It is also your responsibility to follow all rules of each program. We anticipate that the information contained in this Bulletin will assist you with your questions regarding financial aid.

Standards of Satisfactory Progress

It is your right as a student to know and understand all aspects of your financial aid award. It is also your responsibility to follow all rules for each program. We anticipate that the information contained in this Bulletin will assist you with your questions regarding financial aid.

Family Education Rights and Privacy Act (FERPA)

A student has a right to:

- Inspect and review education records pertaining to the student;
- Request and amendment to the student's records; and
- Request a hearing (if the request for an amendment is denied) to challenge the contents of the education records, on the grounds that the records are innacurate, misleading, or violate the rights of the student.

The parent or eligible student has a right to:

- Inspect and review the student's education records;
- Request the amendment of the student's education records to ensure they are not inaccurate, misleading, or in otherwise in violation of the student's privacy or other rights.
- Consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.
- File with the U.S. Department of Education a complaint concerning alleged failures by the school to comply with the requirements of FERPA; and
- Obtain a copy of the school's FERP policy.

Disclosure of Personally Identifiable Information

- FERPA regulations list conditions under which "personally identifiable information" from a student's education record may be disclosed without the students prior consent.
- Disclosure may be made to authorized representatives of the U.S. Department of Education, the Office of Inspector General, or state and local education authorities. These officials may have access to education records as a part of an audit or program review, or to ensure compliance with Student Financial Assistance program requirements. (Representatives of the Department include research firms that are under contract with the Department to conduct studies of financial aid procedures, using student information provided by the schools selected for the study. The term also includes the Student Financial Assistance program public inquiry contractor.)
- Disclosure may be made if it is in connection with financial aid that the student may receive a request from the Immigration and Naturalization Service (INS) or the Federal Bureau of Investigation (FBI) for access to a student's records. Such a request may be granted only if the student information is needed to determine the amount of the aid, the conditions for the aid, the student's eligibility for the aid, or to enforce the terms or conditions of the aid.
- Disclosure may be made to the student's parent, if the student is dependent on the parent, as defined by the Internal Revenue Service. If the student receives more than half of his or her support from the parent, under the IRS definition, the student is a dependent of the parent. (Note that the IRS definition is quite different from the rules governing dependency status for the Student Financial Assistance programs.)
- Disclosure may be made to organizations that are conducting studies concerning the administration of student aid programs on behalf of educational agencies or institutions.

Refund/Repayment Schedule

Whenever a student withdraws from classes and the student has received financial aid, federal regulations require that a portion of the aid that was received must be returned to the program where the aid originally came. One of the following refund policies will be followed depending on the student's status. (The refund schedule used results in the largest possible refund to the Federal Aid program.)

Prorata Refund Schedule:

(for all first-time, first-term aid recipients at The University of Akron)

100% through the 1st week of semester
80% through 2nd and 3rd week of semester
70% through 4th week of semester
60% through 4th week of semester
60% through 5th and 6th weeks of semester
50% through 7th and 8th week of semester
40% through 9th week of semester
0% after 9th week of semester

OR

University Refund Schedule (noted on page **):

(for all students not meeting "Prorata" definition above)

Federal Refund Schedule:

(for all students not meeting "Prorata" definition above)

100% through 1st day of class
90% 2nd day of class through 9th day of class
50% 10th day of class through end of 4th week of semester
25% 5th week through end of 8th week of semester
0% after 8th week of semester

OR

University Refund Policy

Conditions of Refund

If you totally withdraw and financial aid paid for your classes, the refund must be returned by the University to the financial aid programs before you receive any refund. The programs are reimbursed in the following order: Federal Unsubsidized Stafford Loan, Federal Subsidized Stafford Loan, Federal Parent PLUS Loan, Federal Perkins Loan, Federal Pell Grant, Federal Supplemental Educational Opportunity Grant, Nursing Student Loan, other Title IV aid, Ohio Instructional Grant, and finally, Scholarships.

Please be aware that this means, if you received a student loan and you totally withdraw, your refund will be returned to your lender to pay toward your student loan instead of being paid to you.

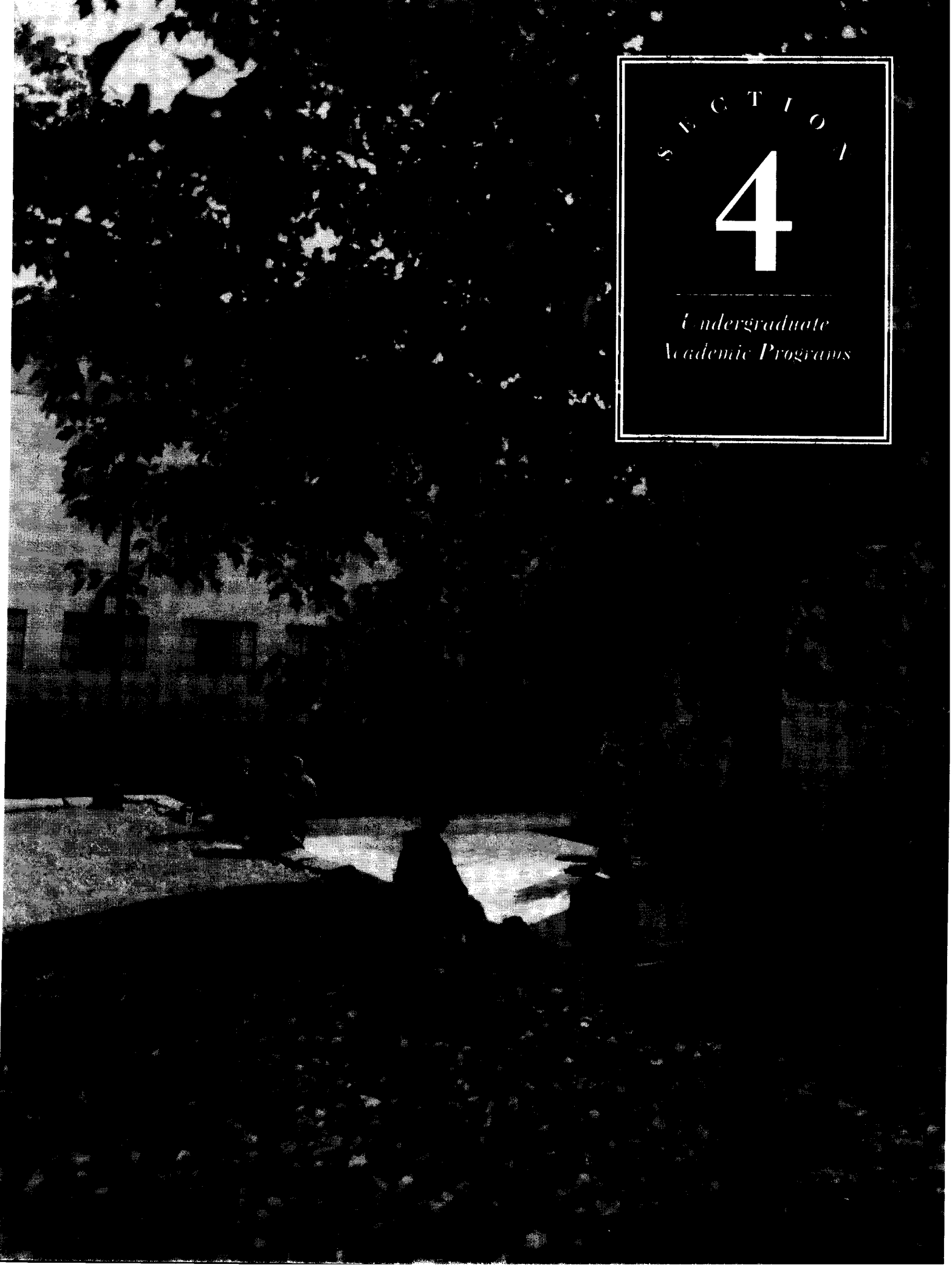
Administrative Fee

Your refund will be reduced by the exclusion of an administrative fee from the refund calculation. This administrative fee will amount to 5 percent of your total instructional charges but will not exceed $100.

Inquiries

Since the process of applying for financial aid may at first seem complicated, it is suggested that families contact a high school counselor or a University financial aid officer for additional information. Direct inquiries to:

Office of Student Financial Aid
Spicer Hall 119
The University of Akron
Akron, OH 44325-6211
Phone: (330) 972-7032 or (800) 621-3847



SECTION

4

Undergraduate Academic Programs

Community and Technical College

David A. Sam, Ph. D., *Dean*
Michael M. Williams, Ph. D., *Associate Dean*

OBJECTIVES

The Community and Technical College helps to further the goals and purposes of the University by emphasizing the following objectives:

- The college serves the student by providing the means to examine academic and career opportunities considering interests, abilities and achievements.
- The college provides for industry, business, government agencies, health-care establishment and human service occupations; pre-service and in-service training for entry-level positions or advancement in employment.
- Consistent with the philosophy of learning as a life-long experience, the college provides educational opportunities for the student no matter the age, background and need; full- or part-time, day or evening.
- The college provides quality instruction with qualified and experienced teachers who are encouraged to use the community as a "laboratory" for achieving educational goals.

The college recommends each student for the appropriate degree in accordance with the level of accomplishment.

The college offers both pre-service and in-service training; pre-service for the recent high school graduate who can receive an associate degree upon the satisfactory completion of two years of full-time studies; and in-service through evening courses where employed persons may pursue the same degrees while working full time. The college also offers some bachelor's degrees, certificates and minors.

Cooperative Education

Minimum requirements for cooperative education students include the following:

- Enrollment in a program of study offered by the Community and Technical College wherein cooperative education has been established.
- Minimum grade-point average of 2.00 for all University of Akron course work and a minimum of 2.00 for all course work applicable to program of study.
- Completion of specific courses and/or credits for a particular program as approved by the college faculty.

Minor Areas of Study

For an explanation of minor areas of study in the Community and Technical College, see **Section 5** of this Bulletin.

BACCALAUREATE DEGREE PROGRAMS OF INSTRUCTION

Engineering Technology

The baccalaureate-level programs in Engineering Technology are intended to fill the widening gap in modern industry between the professional engineer and the engineering technician. The graduate of a program works in close support of engineers, translating conceptual ideas into functioning systems and providing supervisory direction for the implementation of these ideas by technicians and craftsmen.

These programs are designed as transfer programs to permit the qualified engineering technology student to continue education to the baccalaureate degree. During the first and second years, a student follows an associate degree program in the corresponding engineering technology. The third and fourth years provide the additional study required for the baccalaureate degree. Emphasis is placed on advanced training in the student's field of specialization, broadened knowledge of related technical fields, extended general education and basic management training.

The programs are available in automated manufacturing engineering technology, electronic engineering technology, mechanical engineering technology, and surveying and mapping. It is intended that a graduate will find employment in manufacturing, technical sales and service, application engineering, inspection and testing and the more standardized aspects of engineering design.

The requirements for the Bachelor of Science in Automated Engineering Manufacturing Technology, the Bachelor of Science in Electronic Engineering Technology, or the Bachelor of Science in Mechanical Engineering Technology are as follows:

- Compliance with the general University requirements for a baccalaureate degree as listed in this Bulletin.
- Compliance with the requirements of the General Education program as outlined in this Bulletin.
- Completion of the requirements for the associate degree in a related engineering technology at The University of Akron or other accredited institution.
- Successful completion of a minimum of 136 credits in BSAMET, 136 credits in BSMET, and 139 in the BSEET Program including associate degree program, general education courses, and the following course requirements.

Bachelor of Science in Automated Manufacturing Engineering Technology

The Bachelor of Science in Automated Manufacturing Engineering Technology is offered as a "plus-two" program the second two years of a baccalaureate degree. A Manufacturing Engineering Technology associate degree program serves as the first two years. Although an associate manufacturing program is cited, graduates from other related associate programs can frequently enter the program with little or no bridgework.

Third- and fourth-year requirements:		*Credits*
3300:112	English Composition	3
3400:210	Humanities in the Western Tradition I	4
xxxx:xxx	Humanities Requirement (see adviser)	
xxxx:xxx	Area Studies/Cultural Diversity Requirement (see adviser)	4
7600:105	Introduction to Public Speaking	3
	or	
7600:106	Effective Oral Communication	
2030:154	Elements of Math IV	3
2030:255	Elements of Calculus	3
2040:247	Survey of Basic Economics	3
2820:310	Programming for Technologists	2
2860:270	Survey of Electronics	3
2870:301	Computer Control of Automated Systems	3
2870:311	Facilities Planning	2
2870:420	Materials & Processes	2
2870:470	Simulation of Manufacturing Systems	2
2870:480	Automated Production	2
2870:490	Manufacturing Project	2
2920:310	Economics of Technology	3
2920:448	CNC Programming II	3
2940:210	Computer Aided Drawing I	3
2940:211	Computer Aided Drawing II	3
6500:301	Management: Principles and Concepts	3
6500:330	Principles of Operations Management	3
6500:435	Quality Control	3
	Technical Electives	3

Bachelor of Science in Electronic Engineering Technology

(Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology) (TAC of ABET)

For the first- and second-year requirements, see associate degree program in 2860: Electronic Engineering Technology.

Third- and fourth-year requirements:		
3300:112	English Composition	3
3400:210	Humanities in the Western Tradition I	4
xxxx:xxx	Humanities Requirement (see adviser)	6
xxxx:xxx	Area Studies/Cultural Diversity Requirement (see adviser)	4
2030:345	Basic Techniques for Data Analysis	2
2030:356	Calculus for Technical Applications	3
2820:111	Introductory Chemistry	3
2860:350	Advanced Circuit Theory	3

		Credits
2860:352	Microprocessor Systems	4
2860:354	Advanced Circuit Applications	4
2860:400	Computer Simulations in Technology	3
2860:406	Communication Systems	3
2860:453	Control Systems	4
2920:310	Economics of Technology	3
xxxx:xxx	Computer Programming Elective	2
6500:301	Management Principles and Concepts	3
6500:330	Principles of Operations Management	3
7600:106	Effective Oral Communication	3
	Technical Electives	5
Electronic Technology Electives:		
2860:451	Industrial Electronic Systems	
	or	
* 2860:420	Biomedical Electronic Instrumentation	3
	or	
2860:430	Senior Topics in Electronic Technology	

Prior to enrolling in the program and to taking 2860:350 Advanced Circuits, a student must have completed at least 45 credits of a two-year electronic technology associate degree program; maintained a grade-point ratio of 2.00 or higher in major courses (Mathematical Analysis or equivalent, Basic Physics or equivalent, and technical courses in the 2860 or 2900 series or equivalent); and maintained a minimum overall grade-point ratio of 2.00.

Bachelor of Science in Mechanical Engineering Technology

(Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology) (TAC of ABET)

For first- and second-year requirements, see associate degree program in mechanical engineering technology.

Third- and fourth-year requirements:		
2030:356	Calculus for Technical Applications	3
2040:247	Survey of Basic Economics	3
2820:310	Programming for Technologists	2
2820:111	Introductory Chemistry	3
2820:112	Introductory and Analytical Chemistry	3
2860:270	Survey of Electronics I	3
2860:271	Survey of Electronics II	3
2880:241	Intro to Quality Assurance	3
2920:310	Economics of Technology	3
2920:344	Dynamics	2
2920:346	Mechanical Design III	4
2920:347	Production Machinery and Processes	3
2920:348	CNC Programming I	3
2920:365	Applied Thermal Energy II	2
2920:370	Plastics Design and Processing	3
2920:402	Mechanical Projects	1
2920:405	Industrial Machine Control	3
2920:470	Plastics Processing and Testing	2
3300:112	English Composition	3
3400:210	Humanities in the Western Tradition I	4
xxxx:xxx	Humanities Requirement (see adviser)	6
xxxx:xxx	Area Studies/Cultural Diversity Requirement (see adviser)	4
	Technical Elective	3

Prior to enrolling in the program, a student must have completed at least 45 credits of the two-year program with a grade-point ratio of 2.00 or higher in Math for Engineering Technology, Technical Physics and technical courses (2920 series) in the two-year program; and a minimum overall grade-point ratio of 2.00.

Bachelor of Science in Surveying and Mapping*

The modern surveyor must be reasonably knowledgeable in all of the surveying and some of the mapping related specialties. The B.S. in Surveying and Mapping degree is designed to give future professionals in the surveying and mapping sciences a broad base of knowledge covering all phases of surveying and mapping. This degree is also designed to meet the formal education requirements for registration as a Professional Surveyor in the state of Ohio.

The surveying portion of the B.S. in Surveying and Mapping degree includes instruction in: control surveys, route surveys, engineering and construction surveys, as well as land surveys for property and boundary retracement, land subdivision, topographic and site surveys.

A surveyor is a professional who determines accurate distances, directions, areas, volumes and positions of natural or cultural/man-made features with respect to the earth's surface. Survey data is commonly displayed and communicated both numerically and graphically in the form of maps, plats and computer-generated graphics, as well as the traditional printed data, surveying descriptions and photographically-based media. A surveyor is not only a measurement and computational analyst, but also a land boundary analyst. Land boundaries and engineering works are best represented through graphic portrayal, such as a map or plan. The mapping portion of the degree places emphasis on large scale mapping requirements that surveyors are routinely required to perform, including topographic surveys, site, boundary, route maps/plans and subdivision plans. Both hand-drawn and computer-aided drafting (CAD) techniques are taught in this program.

The B.S. in Surveying and Mapping degree program includes classroom, laboratory, and industry experiences which stress the application of established surveying and mapping knowledge and methods to the solution of land use and mensuration problems.

During the first and second years, a student follows an associate degree program in surveying and construction. This A.A.S. degree is intended for the student who desires work as a surveying technician. The student can then elect to seek employment as a technician or take the next step in becoming a professional surveyor. The last three years provide the additional study required for the baccalaureate degree. Course substitutions may be made with the approval of the Dean of the College.

Cooperative Work Study requirement

The required one-year Cooperative Work Study experience of the Surveying and Mapping program may be satisfied by and one of the following options: 1.) one calendar year; 2.) three semesters; or 3.) department review of prior or concurrent work experience.

Students having prior or concurrent work experience should submit the appropriate documentation to the Surveying and Mapping Co-op Review Committee before signing their program contract. The Surveying and Mapping Co-op Review Committee will determine whether this work experience satisfies the co-op requirement.

While a student is at work, all rules and regulations prescribed by the employer must be obeyed.

Requirements for graduation

- Compliance with general University requirements for a baccalaureate degree as listed in this Bulletin.
- Compliance with requirements of the General Education Requirement as outlined in this Bulletin (see University College).
- Completion of the requirements for the associate degree in Surveying and Construction Engineering Technology, Surveying Option, at The University of Akron or an approved associate degree program with a surveying option/major at another accredited institution. Students transferring from another institution must have their transcripts evaluated to insure that they have the required number of credits in surveying and mapping courses. Those found deficient must complete lower level surveying course work before upper level surveying or mapping courses can be taken.
- Successful completion of a minimum 137 credits in the B.S, in Surveying and Mapping program including the associate degree program, the general education courses, a one-year co-op, and the following course requirements:

Third- and fourth-year requirements:		Credits
3300:112	English Composition II	3
3400:210	Humanities in the Western Tradition I	4
xxxx:xxx	Humanities Requirement (see adviser)	6
xxxx:xxx	Area Studies/Cultural Diversity Requirement (see adviser)	4
2030:345	Basic Techniques for Data Analysis	2
2030:356	Calculus for Technical Applications	3
2430:185	Real Estate Law	2
2820:310	Programming for Technologists	2
2920:310	Economics of Technology	3
2940:210	Computer Aided Drawing I	3
2980:310	Applied Photogrammetry for Surveyors	3
2980:320	Survey Computations and Adjustment	3
2980:410	Boundary Surveying	3
2980:430	Surveying Project	3
3350:340	Cartography	3
3350:405	Geographic Information Systems	3
3350:448	Advanced Cartography	3
5540:xxx	Physical Education	1
6500:301	Management Principles and Concepts	3
	Technical Electives	6
	Surveying Electives	5

* This program has been approved by the Board of Trustees but will not be offered until approved by the Ohio Board of Regents.

ASSOCIATE DEGREE PROGRAMS OF INSTRUCTION

Specialized technical programs are offered in the following divisions of the college:

Allied Health Technology
Associate Studies
Business Technology
Engineering and Science Technology
Public Service Technology

These programs lead to the Associate in Applied Science, Associate in Applied Business (carrying a designation of the specific program), and Associate of Technical Study. In addition, a program in liberal arts leading to the Associate of Arts and a program leading to the Associate of Individualized Studies are offered in the Associate Studies Division.

Requirements for Graduation

Candidates for the associate degree must have the following:

- Complete the required courses listed in the program.

  Complete as a minimum, the number of credits listed for each program.
- Earn a minimum grade-point average of 2.00 in all work taken at The University of Akron.
- Be recommended by the faculty.

  Spend the last semester in residence (earning a minimum of 16 credits) at the University unless excused by the dean of the college.
- Complete other University requirements as in "Requirements for Graduation," **Section 3** in this Bulletin.

A student who expects to receive a second associate degree must earn a minimum of 16 credits in residence which have not counted toward the student's first degree.

Allied Health

2730: Histologic Technology *

A histologic technician prepares sections of body tissue for microscopic examination by a pathologist. The technician specializes in techniques involving the use of the electron microscope and special studies which determine a patient's diagnosis.

		Credits
2020:121	English	4
2020:222	Technical Report Writing	3
2030:152	Elements of Math II	2
2030:153	Elements of Math III	2
2040:240	Human Relations	3
2040:242	American Urban Society	3
2730:225	Histotechnology Practicum	5
2740:120	Medical Terminology	3
2820:111	Introductory Chemistry	3
2820:112	Introductory and Analytical Chemistry	3
3100:111	Principles of Biology	4
3100:112	Principles of Biology	4
3100:130	Principles of Microbiology	3
3100:265	Introduction to Human Physiology	4
3100:365	Histology I	3
3100:366	Histology II	3
3850:342	Sociology of Health and Illness	3
5540:xxx	Physical Education	1
7600:105	Introduction to Public Speaking	3
	Electives	7

2740: Medical Assisting Technology

This program provides students with the background to perform receptionist, record keeping and general office duties and to assist physicians in examining patients, performing simple laboratory tests and helping with treatment in physicians' offices, clinics and hospital outpatient departments.

		Credits
2020:121	English	4
2040:240	Human Relations	3
2040:244	Death and Dying	2
2420:211	Basic Accounting I	3
2440:102	Introduction to Windows	1
2440:103	Software Fundamentals	2
2540:119	Business English	3
2540:121	Introduction to Office Procedures	3
2540:129	Information/Records Management	3
2540:151	Intermediate Word Processing	3
2740:100	Introduction to Medical Assisting	2
2740:120	Medical Terminology	3
2740:121	Study of Disease Process for Medical Assisting	3
2740:135	Medical Assisting Techniques I	4
2740:230	Basic Pharmacology	3
2740:235	Medical Assisting Techniques II	4
2740:240	Medical Machine Transcription	3
2740:241	Medical Records	3
2740:260	Externship in Medical Assisting	3
2780:106,7	Anatomy and Physiology for Allied Health I, II	6
5540:xxx	Physical Education	1
5550:211	First Aid and CPR	2
7600:105	Introduction to Public Speaking	3
	or	
7600:106	Effective Oral Communication	3

2760: Radiologic Technology

This program prepares graduates to perform radiologic examinations under a physician's direction for diagnosis and treatment of physical diseases and injuries. Although the University is authorized to offer the associate degree in radiologic technology, this degree program is not fully operational on campus at this time but is offered in conjunction with an area hospital school of radiology.

A student who satisfactorily completes an accredited program in radiologic technology at a hospital school having an affiliation with the University may earn the associate degree by completing additional courses at the University. The student will then receive a block of credit for the hospital program that is applicable only to the associate degree in radiologic technology. (Selective Admission)

The degree requirements for the student are as follows:

2020:121	English	4
2030:130	Introduction to Technical Mathematics	3
2040:240	Human Relations	3
2780:106	Anatomy and Physiology for Allied Health I	3
	or	
3100:208	Human Anatomy and Physiology	4
2780:107	Anatomy and Physiology for Allied Health II	3
	or	
3100:209	Human Anatomy and Physiology	4
2760:161	Physical Science for Radiologic Technology I	2
2760:165	Radiographic Principles	3
2760:261	Physical Science for Radiologic Technology II	3
3750:100	Introduction to Psychology	3
5540:xxx	Physical Education	1
7600:106	Effective Oral Communication	3
	General Electives	2
	Credits for Hospital Program	41

Radiology schools at the following hospitals are affiliated with the University:
Children's Hospital Medical Center of Akron

Applications for admission to these programs should be made directly to the hospital school.

2770: Surgical Assisting Technology *

This program trains people to prepare equipment and assist the physician and other members of the surgical team with patient care and related services in the hospital operating room. (Selective admission.)

Surgical Technologist Option

2020:121	English	4
2030:130	Introduction to Technical Mathematics	3
2040:240	Human Relations	3
2040:242	American Urban Society	3
2740:120	Medical Terminology	3
2740:230	Basic Pharmacology	3
2770:100	Introduction to Surgical Assisting Technology	4
2770:121	Surgical Assisting Procedures I	2
2770:131	Clinical Application I	2
2770:148	Surgical Anatomy I	3
2770:222	Surgical Assisting Procedures II	4
2770:232	Clinical Application II	5
2770:233	Clinical Application III	5
2820:105	Basic Chemistry	3

* Limited enrollment program, contact college for details.

* Deadline for application to the program is April 15.

		Credits
3100:130	Principles of Microbiology	3
3100:208	Human Anatomy and Physiology	4
3100:209	Human Anatomy and Physiology	4
5540:xxx	Physical Education	1
7600:106	Effective Oral Communication	3
	General Elective	2

2790: Respiratory Care *

This program prepares persons, under the supervision of a physician, to administer medical gases, medications and operate equipment in the medical care of patients with respiratory disorders. Selective admission.

2020:121	English	4
2020:222	Technical Report Writing	3
2030:130	Introduction to Technical Mathematics	3
2040:240	Human Relations	3
2040:242	American Urban Society	3
2780:106,7	Anatomy and Physiology for Allied Health I, II	6
2790:121	Introduction to Respiratory Care	3
2790:122	Respiratory Patient Care	3
2790:123	Mechanical Ventilators	3
2790:131	Clinical Application I	3
2790:132	Clinical Application II	2
2790:133	Clinical Application III	5
2790:134	Clinical Application IV	5
2790:141	Pharmacology	2
2790:242	Pathology for Respiratory Care	3
2790:201	Anatomy and Physiology of Cardiopulmonary System	3
2790:223	Advanced Respiratory Care	3
2790:224	Pulmonary Rehabilitation and the Respiratory Care Department	2
2820:105	Basic Chemistry	3
3100:130	Principles of Microbiology	3
5540:xxx	Physical Education	1
7600:106	Effective Oral Communication	3
	Electives	2

Associate Studies

2020: Arts

Through basic course work and general education, this program is intended to produce a socially intelligent individual, one who understands effective social values as well as scientific facts.

2020:121	English	4
3300:112	English Composition II	3
xxxx:xxx	Natural Science Requirement †	8
xxxx:xxx	Area Studies/Cultural Diversity Requirement (see adviser)	4
3400:210	Humanities in the Western Tradition I (see adviser)	4
xxxx:xxx	Humanities Requirement	6
2040:240	Human Relations ‡‡	3
2040:242	American Urban Society ‡‡	3
2040:247	Survey of Basic Economics ‡‡	3
xxxx:xxx	Math Requirement	4
5540:xxx	Physical Education	1
7600:105	Introduction to Public Speaking	3
	or	
7600:106	Effective Oral Communication	3
	Electives	21

2100: Individualized Study

The Associate of Individualized Study (AIS) is designed for students whose educational goals cannot be met through one of the structured associate degree programs. It makes available a program of study which combines course work from various disciplines and focuses on education for individual development.

A student at The University of Akron may apply for the AIS program by meeting with the AIS coordinator and submitting the AIS application. The purpose of this procedure is to determine the appropriateness of the program for the student; and, with the assistance of the AIS chair, to select the areas of study.

Although students assume the responsibility for the selection of their areas of study, they must receive assistance and approval from the Chair of the AIS program. Requirements for graduation from the AIS program are:

- Completion of:
  - — course 2100:190 Individualized Study Evaluation;
  - — minimum of 40 credits in the AIS program after acceptance to the program;
  - — minimum of 20 credits of Community and Technical College courses;
  - — minimum of 16 credits in the General Course Category;
  - — at least one-half of the courses in the approved areas of concentration at the 200 or above level number equally divided among the selected areas;
  - — all other University of Akron requirements for graduation.
- Areas of concentration will be formed by courses drawn from a minimum of two and a maximum of four instructional areas.
- AIS degree will not be awarded in any combination of areas of concentration for which The University of Akron offers either an associate or baccalaureate degree.
- Areas of concentration must serve a coherent educational or occupational goal.
- Only previous coursework completed with a grade of "C" or higher may be applied toward the AIS degree.

Business Technology

2280: Hospitality Management

Provides the general knowledge and skills necessary for success within the multifaceted hospitality industry.

Options

Culinary Arts

		Credits
2020:121	English	4
2040:240	Human Relations	3
2040:247	Survey of Basic Economics	3
2280:101	Introduction to Hospitality	3
2280:120	Safety and Sanitation	3
2280:121	Fundamentals of Food Preparation I	4
2280:122	Fundamentals of Food Preparation II	4
2280:160	Wine and Beverage Service	3
2280:230	Advanced Food Preparation	4
2280:232	Dining Room Service and Training	2
2280:237	Internship	1
2280:233	Restaurant Operations and Management	4
2280:245	Menu, Purchasing and Cost Control	4
2280:256	Hospitality Law	3
2280:261	Baking and Classical Desserts	3
2420:104	Introduction to Business	3
2420:170	Business Mathematics	3
2420:211	Basic Accounting I	3
2440:103	Software Fundamentals	2
2540:263	Business Communications	3
7400:133	Nutrition Fundamentals	3
7600:105	Introduction to Public Speaking	3
	or	
7600:106	Effective Oral Communication	3

Restaurant Management

2020:121	English	4
2040:240	Human Relations	3
2040:247	Survey of Basic Economics	3
2280:101	Introduction to Hospitality	3
2280:120	Safety and Sanitation	3
2280:121	Fundamentals of Food Preparation I	4
2280:122	Fundamentals of Food Preparation II	4
2280:160	Wine and Beverage Service	3
2280:230	Advanced Food Preparation	4
2280:232	Dining Room Service and Training	2
2280:233	Restaurant Operations and Management	4
2280:237	Internship	1
2280:240	Systems Management and Personnel	3
2280:243	Food Equipment and Plant Operations	3
2280:245	Menu, Purchasing and Cost Control	4
2280:256	Hospitality Law	3
2420:104	Introduction to Business	3
2420:117	Small Business Development	3
2420:170	Business Mathematics	3
2420:211	Basic Accounting I	3
2440:103	Software Fundamentals	2
2540:263	Business Communications	3
2520:103	Principles of Advertising	3
7600:105	Introduction to Public Speaking	3
	or	
7600:106	Effective Oral Communication	3

* Deadline for application to the program is April 15.

† At least two courses, one of which must be a lab course

‡‡ See "The University College," Section 4 of this Bulletin for alternate course options.

Hotel/Motel Management

		Credits
2020:121	English	4
2040:240	Human Relations	3
2040:247	Survey of Basic Economics	3
2280:101	Introduction to Hospitality	3
2280:120	Safety and Sanitation	3
2280:121	Fundamentals of Food Preparation I	4
2280:160	Wine and Beverage Service	3
2280:232	Dining Room Service and Training	2
2280:233	Restaurant Operations and Management	4
2280:237	Internship	1
2280:240	Systems Management and Personnel	3
2280:245	Menu, Purchasing and Cost Control	4
2280:256	Hospitality Law	3
2280:268	Revenue Centers	3
2280:278	Hotel Catering and Marketing	3
2420:111	Public Relations	3
2420:104	Introduction to Business	3
2420:170	Business Mathematics	3
2420:211	Basic Accounting I	3
2440:103	Software Fundamentals	2
2520:212	Principles of Sales	3
2540:263	Business Communications	3
7600:105	Introduction to Public Speaking	3
	or	
7600:106	Effective Oral Communication	3

Hotel Marketing and Sales

2020:121	English	4
2040:240	Human Relations	3
2040:247	Survey of Basic Economics	3
2280:101	Introduction to Hospitality	3
2280:120	Safety and Sanitation	3
2280:121	Fundamentals of Food Preparation I	4
2280:160	Wine and Beverage Service	3
2280:232	Dining Room Service and Training	2
2280:233	Restaurant Operations and Management	4
2280:237	Internship	1
2280:240	Systems Management and Personnel	3
2280:243	Food Equipment and Plant Operations	3
2280:245	Menu, Purchasing and Cost Control	4
2280:256	Hospitality Law	3
2280:268	Revenue Centers	3
2280:278	Hotel Catering and Marketing	3
2420:104	Introduction to Business	3
2420:170	Business Mathematics	3
2420:211	Basic Accounting I	3
2540:263	Business Communications	3
2520:103	Principles of Advertising	3
2520:202	Retailing Fundamentals	3
2520:212	Principles of Sales	3
2540:263	Business Communications	3
7600:105	Introduction to Public Speaking	3
	or	
7600:106	Effective Oral Communication	3

2420: Business Management Technology

This program provides comprehensive training in varied business activities which prepare for beginning management or supervisory-level positions in business, industry or self-employed management.

Options

General

2020:121	English	4
2040:240	Human Relations	3
2040:247	Survey of Basic Economics	3
2420:101	Essentials of Marketing Technology	3
2420:103	Essentials of Management Technology	3
2420:104	Introduction to Business	3
2420:111	Public Relations	2
2420:170	Business Mathematics	3
2420:202	Personnel Practices	3
2420:211	Basic Accounting I	3
2420:212	Basic Accounting II	3
2420:243	Survey in Finance	3
2420:280	Essentials of Business Law	3
2440:103	Software Fundamentals	2
2440:125	Spreadsheet Software	2
2540:119	Business English	3
2540:263	Business Communications	3
2560:110	Principles of Transportation	3
2880:232	Labor Management Relations	3
5540:xxx	Physical Education	1
7600:105	Introduction to Public Speaking	3
	or	
7600:106	Effective Oral Communication	3
	Electives	5

Accounting

2020:121	English	4
2040:240	Human Relations	3
	or	
2040:251	Human Behavior at Work	3
2040:247	Survey of Basic Economics	3
2420:101	Essentials of Marketing Technology	3
	or	
2420:202	Personnel Practices	3
2420:103	Role of Supervision in Management	3
2420:104	Introduction to Business	3
2420:170	Business Mathematics	3
2420:211	Basic Accounting I	3
2420:212	Basic Accounting II	3
2420:213	Basic Accounting III	3
2420:214	Essentials of Intermediate Accounting *	3
2420:216	Survey of Cost Accounting*	3
2420:217	Survey of Taxation *	4
2420:243	Survey in Finance	3
2420:280	Essentials of Business Law	3
2440:103	Software Fundamentals	2
2440:125	Spreadsheet Software	2
2440:151	PC DOS Fundamentals	1
2440:245	Introduction to Database for Micros	3
2540:119	Business English	3
2540:xxx	Skills Elective †	2
5540:xxx	Physical Education	1
7600:106	Effective Oral Communication	3

Data Administration

2020:121	English	4
2030:130	Introduction to Technical Mathematics	3
	or	
2420:101	Essentials of Marketing Technology	3
2040:240	Human Relations	3
2040:247	Survey of Basic Economics	3
2420:103	Role of Supervision in Management	3
2420:104	Introduction to Business	3
2420:170	Business Mathematics	3
2420:202	Personnel Practices	3
2420:211	Basic Accounting I	3
2420:212	Basic Accounting II	3
2420:243	Survey in Finance	3
2420:280	Essentials of Business Law	3
2440:103	Software Fundamentals	2
2440:121	Introduction to Logic/Programming	3
2440:125	Spreadsheet Software	2
2440:133	Structured COBOL Programming	2
2440:151	PC DOS Fundamentals	1
2440:220	Software Applications for Business	2
2440:245	Introduction to Database for Micros	3
2540:119	Business English	3
2540:263	Business Communications	3
5540:xxx	Physical Education	1
7600:106	Effective Oral Communication	3
	Electives	3

Small Business Management

2020:121	English	4
2040:240	Human Relations	3
2040:247	Survey of Basic Economics	3
2420:101	Essentials of Marketing Technology	3
2420:103	Essentials of Management Technology	3
2420:104	Introduction to Business	3
2420:117	Small Business Development	3
2420:118	Small Business Management and Operations	3
2420:170	Business Mathematics	3
2420:202	Personnel Practices	3
2420:211	Basic Accounting I	3
2420:212	Basic Accounting II	3
2420:227	Entrepreneurship Projects	4
2420:243	Survey in Finance	3
2420:280	Essentials of Business Law	3
2440:103	Software Fundamentals	2
2450:119	Business English	3
2520:103	Principles of Advertising	3
2540:263	Business Communications	3
	Electives	2

* Course is not transferable to College of Business Administration.

Recommended Electives:		Credits
2040:254	The Black American	2
2420:111	Public Relations	2
2420:233	Installment Credit	2
2520:106	Visual Promotion	3
2520:201	Principles of Wholesaling	2
2520:202	Retailing Fundamentals	3
2520:210	Consumer Service Fundamentals	2
2520:211	Mathematics for Retail Distribution	3
2520:212	Principles of Sales	3
2540:140	Keyboarding for Nonmajors	2
5540:xxx	Physical Education	1
7600:106	Effective Oral Communication	3

2440: Computer Information Systems

This program prepares graduates to enter the job market as computer programmers for business and industry. Emphasis of the curriculum is on programming computers to solve business problems.

- Students entering the Computer Information Systems program must demonstrate a fundamental knowledge of computers by examination or take the following bridge courses prior to enrolling in the program.

Bridge Courses

2440:101	Fundamentals of Computer Concepts	1
2440:102	Introduction to Windows	1
2440:103	Software Fundamentals	2
2540:140	Keyboarding for Non-Majors	2

Options

Programming Specialist

2020:121	English	4
2030:151	Elements of Math I	2
2030:161	Math for Modern Technology	4
2040:240	Human Relations	3
2040:247	Survey of Basic Economics	3
2420:104	Introduction to Business	3
2420:211,12	Basic Accounting I, II	6
2440:121	Introduction to Logic/Programming	3
2440:140	Internet Tools	3
2440:145	Operating Systems	3
2440:160	Java Programming	3
2440:170	Visual BASIC	3
2440:180	Database Concepts	3
2440:210	Client/Server Programming	3
2440:234	Advanced Business Programming	3
2440:241	Systems Analysis and Design	3
2440:251	Computer Applications Project	3
2440:256	C++ Programming	3
2540:263	Business Communications	3
5540:xxx	Physical Education	1
7600:105	Introduction to Public Speaking or	3
7600:106	Effective Oral Communication	3

Programming Specialist with Pre-Business Administration Option

2020:121	English	4
2030:151	Elements of Math I	2
2030:161	Math for Modern Technology	4
2420:104	Introduction to Business	3
2440:121	Introduction to Logic/Programming	3
2440:140	Internet Tools	3
2440:145	Operating Systems	3
2440:160	JAVA Programming	3
2440:170	Visual BASIC	3
2440:180	Database Concepts	3
2440:210	Client/Server Programming	3
2440:234	Advanced Business Programming	3
2440:241	Systems Analysis and Design	3
2440:251	Computer Applications Projects	4
2440:256	C++ Programming	3
2540:263	Business Communications	3
3250:200	Principles of Microeconomics	3
3250:201	Principles of Macroeconomics	3
3750:100	Introduction to Psychology	3
5540:xxx	Physical Education	1
6200:201,2	Accounting I, II	6
7600:105	Introduction to Public Speaking or	3
7600:106	Effective Oral Communication	3

Microcomputer Specialist

		Credits
2020:121	English	4
2030:151	Elements of Math I	2
2030:161	Math for Modern Technology	4
2040:240	Human Relations	3
2040:247	Survey of Basic Economics	3
2420:104	Introduction to Business	3
2420:211,12	Basic Accounting I, II	6
2440:121	Introduction to Logic/Programming	3
2440:140	Internet Tools	3
2440:145	Operating Systems	3
2440:170	Visual BASIC	3
2440:175	Microcomputer Application Support	3
2440:180	Database Concepts	3
2440:210	Client/Server Programming	3
2440:241	Systems Analysis and Design	3
2440:247	Hardware Support**	3
2440:257	Microcomputer Projects	3
2440:267	Microcomputer Database Applications	3
2440:268	Network Concepts**	2
2540:263	Business Communications	3
5540:xxx	Physical Education	1
7600:105	Introduction to Public Speaking or	3
7600:106	Effective Oral Communication	3

Microcomputer Specialist with Pre-Business Administration Option

2020:121	English	4
2030:151	Elements of Math I	2
2030:161	Math for Modern Technology	4
2420:104	Introduction to Business	3
2440:121	Introduction to Logic/Programming	3
2440:140	Internet Tools	3
2440:145	Operating Systems	3
2440:170	Visual BASIC	3
2440:175	Microcomputer Application Support	3
2440:180	Database Concepts	3
2440:210	Client/Server Programming	3
2440:241	Systems Analysis and Design	3
2440:247	Hardware Support**	3
2440:257	Microcomputer Projects	3
2440:267	Microcomputer Database Applications	3
2440:268	Network Concepts**	2
2540:263	Business Communications	3
3250:200	Principles of Microeconomics	3
3250:201	Principles of Macroeconomics	3
3750:100	Introduction to Psychology	3
5540:xxx	Physical Education	1
6200:201,2	Accounting I, II	6
7600:105	Introduction to Public Speaking or	3
7600:106	Effective Oral Communication	3

2520: Marketing and Sales Technology

This program equips graduates to fill entry-level positions in distributive business areas including retailing, industrial distribution and fashion.

Core Program

2020:121	English	4
2040:240	Human Relations	3
2040:247	Survey of Basic Economics	3
2420:101	Essentials of Marketing Technology	3
2420:170	Business Mathematics	3
2420:211	Basic Accounting I	3
2420:280	Essentials of Business Law	3
2440:103	Software Fundamentals	2
2520:103	Principles of Advertising	3
2520:106	Visual Promotion	3
2520:202	Retailing Fundamentals	3
2520:210	Consumer Service Fundamentals	2
2520:211	Mathematics of Retail Distribution	3
2520:212	Principles of Sales	3
2540:263	Business Communications	3
5540:xxx	Physical Education	1
7600:105	Introduction to Public Speaking	3
	Option Requirements	16
Suggested Electives:		
2520:221	AAF Advertising Campaign I	2
2520:222	AAF Advertising Campaign II	2

**Student must be admitted to program or obtain permission from program director.

Options

Advertising

		Credits
Required Technical Courses:		
2020:224	Writing for Advertising	4
2420:104	Introduction to Business	3
2520:215	Advertising Projects	2
	and	
2520:217	Merchandising Projects	2
	or	
2520:219	Sales Projects	2
2520:234	Humor in Advertising	2
	Electives	3
Suggested Electives:		
2420:243	Survey in Finance	3
2520:221	AAF Advertising Campaign I	2
2520:222	AAF Advertising Campaign II	2

Fashion

2420:104	Introduction to Business	3
7400:225	Textiles	3
7400:219	Clothing Communication	3
7400:221	Evaluation of Apparel	3
7400:239	The Fashion Industry	3
	Elective	1
Suggested elective:		
2520:217	Merchandising Projects	2

Retailing

2420:104	Introduction to Business	3
2420:243	Survey in Finance	3
2520:215	Advertising Projects	2
	or	
2520:219	Sales Projects	2
2520:217	Merchandising Projects	2
	Electives	6

Sales

Required Courses:		
2420:104	Introduction to Business	3
2420:243	Survey in Finance	3
2520:215	Advertising Projects	2
2520:217	Merchandising Projects	2
2520:219	Sales Projects	2
	Electives	4
Suggested Electives:		
2520:221	AAF Advertising Campaign I	2
2520:222	AAF Advertising Campaign II	2

2540: Office Administration

Preparing students for the different but often overlapping fields of administrative assisting, secretarial, word processing, information management, or clerical work, this program is based on personal career objectives. Students choose from program options that prepare them for positions in administrative assistant work; medical, legal, or international secretarial; or office/information management.**

Options

Medical Secretarial

2020:121	English	4
2040:240	Human Relations	3
2040:244	Death and Dying	2
2420:170	Business Mathematics	3
2420:211	Basic Accounting I	3
2440:103	Software Fundamentals	2
2540:119	Business English	3
2540:121	Intro to Office Procedures	3
2540:129	Information/Records Management	3
2540:151	Intermediate Word Processing	3
2540:243	Internship	3
2540:253	Advanced Word Processing	3
2540:263	Business Communications	3
2540:270	Office Software Applications	4
2740:100	Intro to Medical Assisting	2
2740:120	Medical Terminology	3
2740:121	Study of Disease Processes for Medical Assisting	3
2740:240	Medical Machine Transcription	3
2740:241	Medical Records	3
5540:xxx	Physical Education	1
5550:211	First Aid and CPR	2
	Electives	1

International Secretarial

		Credits
2020:121	English	4
2040:240	Human Relations	3
2040:247	Survey of Basic Economics	3
2420:104	Introduction to Business	3
2420:170	Business Mathematics	3
2420:211	Basic Accounting I	3
2440:102	Introduction to Windows	1
2440:103	Software Fundamentals	2
2440:125	Spreadsheet Software	2
2540:119	Business English	3
2540:121	Introduction to Office Procedures	3
2540:129	Information/Records Management	3
2540:151	Intermediate Word Processing	3
2540:243	Internship	3
2540:253	Advanced Word Processing	3
2540:263	Business Communications	3
2540:270	Office Software Applications	4
2540:281	Editing/Proofreading/Transcription	3
3500:xxx	Beginning Foreign Language I and II	8
3500:xxx	Intermediate Foreign Language I and II	6
5540:xxx	Physical Education	1
7600:105	Introduction to Public Speaking	3
	or	
7600:106	Effective Oral Communication	4

Administrative Assistant

2020:121	English	4
2040:240	Human Relations	3
2040:247	Survey of Basic Economics	3
2420:104	Introduction to Business	3
2420:170	Business Mathematics	3
2420:211	Basic Accounting I	3
2440:102	Introduction to Windows	1
2440:103	Software Fundamentals	2
2440:125	Spreadsheet Software	2
2540:119	Business English	3
2540:121	Introduction to Office Procedures	3
2540:129	Information/Records Management	3
2540:151	Intermediate Word Processing	3
2540:243	Internship	3
2540:253	Advanced Word Processing	3
2540:263	Business Communications	3
2540:270	Office Software Applications	4
2540:271	Desktop Publishing	3
2540:273	Computer-Based Graphic Presentations	3
2540:281	Editing/Proofreading/Transcription	3
5540:xxx	Physical Education	1
7600:105	Introduction to Public Speaking	3
	or	
7600:106	Effective Oral Communication	4
	Electives	4
Suggested Electives:		
2040:241	Technology and Human Values	3
2040:242	American Urban Society	3
2040:244	Death and Dying	2
2040:251	Human Behavior at Work	3
2040:254	Black American	2
2540:120	Keyboarding Skill Development	1
2540:289	Career Development for Office Professionals	3

** Associate degree courses may be applied toward a four-year business education or technical education degree.

2560: Transportation

This program is aimed at developing technical knowledge and skills in the area of transportation management.

Options

Airline/Travel Industry

		Credits
2020:121	English	4
2040:240	Human Relations	3
2040:247	Survey of Basic Economics	3
2420:101	Essentials of Marketing Technology	3
2420:104	Introduction to Business	3
2420:170	Business Mathematics	3
2420:202	Personnel Practices	3
2420:211	Basic Accounting I	3
2420:280	Essentials of Business Law	3
2440:103	Software Fundamentals	2
2520:212	Principles of Sales	3
2540:119	Business English	3
2540:140	Keyboarding for Nonmajors	2
	or	
2540:141	Wordperfect Beginning	2
2560:110	Principles of Transportation	3
2560:116	Air Transportation	2
2560:118	Transportation Rate System	3
2560:221	Traffic and Distribution Management	3
2560:228	Introduction to Travel	2
2560:229	Passenger Ticketing	2
2560:230	Tour Planning and Packaging	2
2560:231	Computerized Reservations I	2
2560:232	Computerized Reservations II	2
5540:xxx	Physical Education	1
7600:105	Introduction to Public Speaking	3
	or	
7600:106	Effective Oral Communication	3
	Elective	1

General

2020:121	English	4
2020:222	Technical Report Writing	3
2040:240	Human Relations	3
2040:247	Survey of Basic Economics	3
2420:101	Essentials of Marketing Technology	3
2420:104	Introduction to Business	3
2420:170	Business Mathematics	3
2420:211	Basic Accounting I	3
2420:280	Essentials of Business Law	3
2440:103	Software Fundamentals	2
2540:119	Business English	3
2540:263	Business Communications	3
2560:110	Principles of Transportation	3
2560:115	Motor Transportation	3
2560:116	Air Transportation	2
2560:117	Water Transportation	2
2560:118	Transportation Rate Systems	3
2560:221	Traffic and Distribution Management	3
2560:222	Microcomputer Applications in Transportation	3
2560:224	Transportation Regulation	3
2560:227	Transportation of Hazardous Materials and Wastes	2
5540:xxx	Physical Education	1
7600:105	Introduction to Public Speaking	3
	or	
7600:106	Effective Oral Communication	3

Engineering and Science Technology

2830: Electromechanical Service Technology

This program is designed to prepare technicians to repair and maintain both the electrical and mechanical subsystems of manufacturing equipment.

		Credits
2020:121	English	4
2030:151	Elements of Mathematics I	2
2030:152	Elements of Mathematics II	2
2040:240	Human Relations	3
2440:103	Software Fundamentals	2
2820:110	Physical Science for Technicians	3
2830:110	Electromechanical Devices	4
2830:210	Motion Control I	4
2830:220	Motion Control II	3
2830:230	Machine and Process Control	4
2830:240	Industrial Computer Control	3
2830:250	Programmable Controllers	3
2830:260	Electrical Power and Wiring	3
2830:270	Troubleshooting and Repair Practices	3
2860:110	Basic Electricity and Electronics	4
2880:110	Manufacturing Processes	2
2920:130	Introduction to Hydraulics and Pneumatics	3
2940:140	Survey of Engineering Technology	3
5540:xxx	Physical Education	1
	General Electives	8

2840: Polymer Technology

This program will prepare graduates for employment in the polymer processing industry. The student will learn the basic properties of plastic materials, how these properties are measured in a laboratory, and the various manufacturing procedures used to process plastics into finished products.

2020:121	English	4
2020:222	Technical Report Writing	3
2030:152	Elements of Mathematics II	2
2030:153	Elements of Mathematics III	2
2030:154	Elements of Math IV	3
2040:242	American Urban Society	3
2040:247	Survey of Basic Economics	3
2820: 100	Introduction to Engineering Technology	2
2820:111	Introductory Chemistry	3
2820:131	Software Applications for Technology	1
2820:161	Technical Physics: Mechanics I	2
2820:164	Technical Physics: Heat and Light	2
2840:111	Polymer Technology I	3
2840:112	Polymer Technology II	3
2840:202	Instrumental Methods	3
2840:211	Polymer Technology III	3
2840:220	Case Studies in Polymer Design and Processing	2
2840:260	Compounding Methods	2
2840:281	Polymer Project	2
2860:110	Basic Electricity and Electronics	4
2880:100	Basic Principles of Manufacturing	4
2880:151	Industrial Safety and Environmental Protection	2
2880:241	Introduction to Quality Assurance	3
2920:130	Introduction to Hydraulics and Pneumatics	3
2940:180	Introduction to Computer Aided Drafting	1
	General Electives	3

2860: Electronic Engineering Technology

(Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.) (TAC of ABET) This program prepares individuals for work as technicians in developing, manufacturing, installing, testing and maintaining electronic equipment and systems.

2020:121	English	4
2020:222	Technical Report Writing	3
2030:152	Elements of Mathematics II	2
2030:153	Elements of Mathematics III	2
2030:154	Elements of Math IV	3
2030:255	Elements of Calculus II	3
2040:240	Human Relations	3
2040:242	American Urban Society	3
2040:247	Survey of Basic Economics	3
2820:121	Technical Computations	1
2820:161	Technical Physics: Mechanics I	2
2820:162	Technical Physics: Mechanics II	2
2820:164	Technical Physics: Heat and Light	2
2860:120	DC Circuits	4
2860:122	AC Circuits	3
2860:123	Electronic Devices	3
2860:136	Introduction to Digital Concepts	1
2860:225	Electronic Devices Applications	4
2860:231	Control Principles	3
2860:237	Digital Circuits	4
2860:238	Microprocessor Fundamentals	4
2860:242	Machinery and Controls	4
2860:251	Communications Circuits	3
2860:255	Electronic Design and Construction	2
2860:260	Electronics Project	2
5540:xxx	Physical Education	1

2880: Manufacturing Engineering Technology

Through the study of basic technical subjects and through concentration on work measurement, manufacturing computer applications, quality control, robotics, manufacturing work cells, and MRPII, this program educates the student in the areas of analysis, design and management of the resources, facilities and people involved in modern manufacturing.

Options

Computer-Aided Manufacturing Option

		Credits
2020:121	English	4
2020:222	Technical Report Writing	3
2030:151	Elements of Mathematics I	2
2030:152	Elements of Mathematics II	2
2030:153	Elements of Mathematics III	2
2040:240	Human Relations	3
2820:131	Software Applications for Technology	1
2820:161	Technical Physics: Mechanics I	2
2820:163	Technical Physics: Electricity and Magnetism	2
2880:100	Basic Principles of Manufacturing Management	4
2880:130	Work Measurement and Cost Estimating	3
2880:151	Industrial Safety and Environmental Protection	2
2880:201	Robotics and Automated Manufacturing	3
2880:211	Computerized Manufacturing Control	3
2880:232	Labor-Management Relations	3
2880:241	Introduction to Quality Assurance	3
2920:130	Introduction to Hydraulics and Pneumatics	3
2920:348	CNC Programming I	3
2940:121	Technical Drawing I	3
2940:180	Introduction to CAD	1
5540:xxx	Physical Education	1
	Technical Electives	3
	General Electives	6

Industrial Supervision Option

2020:121	English	4
2020:222	Technical Report Writing	3
2030:151	Elements of Mathematics I	2
2030:152	Elements of Mathematics II	2
2040:247	Survey of Basic Economics	3
2040:251	Human Behavior at Work	3
2420:103	Essentials of Management Technology	3
2420:202	Personnel Practices	3
2420:211	Basic Accounting I	3
2420:212	Basic Accounting II	3
2420:280	Essentials of Business Law	3
2820:131	Software Applications for Technology	1
2880:100	Basic Principles of Manufacturing Management	4
2880:110	Manufacturing Processes	2
2880:130	Work Measurement and Cost Estimating	3
2880:151	Industrial Safety and Environmental Protection	2
2880:201	Robotics and Automated Manufacturing	3
2880:211	Computerized Manufacturing Control	3
2880:232	Labor Management Relations	3
2880:241	Introduction to Quality Assurance	3
5540:xxx	Physical Education	1
7600:106	Effective Oral Communication	3
	General Electives (see below)	4

General Electives (four credits required from following):

2040:240	Human Relations	3
2040:241	Technology and Human Values	2
2040:242	American Urban Society	3
2040:254	The Black American	2

2920: Mechanical Engineering Technology

(Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.) (TAC of ABET)

This program prepares individuals to work as technicians in developing, designing, manufacturing, testing and servicing mechanical equipment and systems.

		Credits
2020:121	English	4
2020:222	Technical Report Writing	3
2030:152	Elements of Mathematics II	2
2030:153	Elements of Mathematics III	2
2030:154	Elements of Mathematics IV	3
2030:255	Elements of Calculus	3
2040:240	Human Relations	3
2040:242	American Urban Society	3
2820:131	Software Applications	1
2820:161	Technical Physics: Mechanics I	2
2820:162	Technical Physics: Mechanics II	2
2820:163	Technical Physics: Electricity and Magnetism	2
2820:164	Technical Physics: Heat and Light	2
2920:101	Introduction to Mechanical Design	3
2920:142	Introduction to Material Technology	3
2920:243	Kinematics	2
2920:245	Mechanical Design II	5
2920:247	Technology of Machine Tools	3
2920:249	Applied Thermal Energy I	2
2920:251	Fluid Power	2
2920:252	Thermo-Fluids Laboratory	1
2940:121	Technical Drawing I	3
2940:210	Computer Aided Drawing I	3
2980:125	Statics	3
2980:241	Strength of Materials	3
5540:xxx	Physical Education	1
7600:106	Effective Oral Communication	3

2940: Drafting and Computer Drafting Technology

This program prepares an individual to work as a drafter by providing in-depth knowledge of drafting principles as well as computer-aided drafting. The program is designed to prepare the student to work in the major fields of technology, including electrical, architectural, mechanical, manufacturing, surveying, and structural technology. It will educate the individual to compile detailed drawings based on rough sketches, specifications and calculations made by engineers, architects and designers. This daytime program is especially suitable for those who have a special interest or talent for spatial visualization, but do not want an extensive coverage of advanced mathematics or physics.

2020:121	English	4
2020:222	Technical Report Writing	3
2030:151	Elements of Mathematics I	2
2030:152	Elements of Mathematics II	2
2040:240	Human Relations	3
2820:131	Software Applications for Technology	1
2880:110	Manufacturing Processes	2
2920:247	Technology of Machine Tools	3
2940:121	Technical Drawing I	3
2940:122	Technical Drawing II	3
2940:150	Drafting Design Problems	2
2940:170	Surveying Drafting	3
2940:200	Advanced Drafting	3
2940:210	Computer Aided Drawing I	3
2940:211	Computer Aided Drawing II	3
2940:230	Mechanical Systems Drafting	3
2940:240	Electrical and Electronic Drafting	3
2940:250	Architectural Drafting	3
2940:260	Drafting Technology Project	3
2980:223	Fundamentals of Map Production	3
2980:231	Building Construction	2
2980:250	Structural Drawing	2
5540:xxx	Physical Education	1
7600:106	Effective Oral Communication	3
	General Electives	6

General Electives:

2030:153	Elements of Mathematics III	2
2030:154	Elements of Math IV	3
2040:241	Technology and Human Values	2
2040:242	American Urban Society	3
2040:247	Survey of Basic Economics	3
2040:251	Human Behavior at Work	3
2040:254	The Black American	2

2980: Surveying and Construction Engineering Technology

(Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.) (TAC of ABET)

Designed to provide a foundation in mathematics, physics, technical drawing and communication skills, this program allows increased application of these areas in order to build an in-depth background in either construction or surveying.

Options

Construction		*Credits*
2020:121	English	4
2020:222	Technical Report Writing	3
2030:152	Elements of Mathematics II	2
2030:153	Elements of Mathematics III	2
2030:154	Elements of Mathematics IV	3
2030:255	Elements of Calculus	3
2040:242	American Urban Society	3
2040:247	Survey of Basic Economics	3
2820:131	Software Applications for Technology	2
2820:161	Technical Physics: Mechanics I	2
2820:162	Technical Physics: Mechanics II	2
2820:163	Technical Physics: Electricity and Magnetism	
	or	
2820:164	Technical Physics: Heat and Light	2
2940:121	Technical Drawing I	3
2940:180	Introduction to Computer Aided Drafting	1
2980:101	Basic Surveying I	2
2980:102	Basic Surveying II	2
2980:123	Surveying Field Practice	2
2980:125	Statics	3
2980:222	Construction Surveying	3
2980:231	Building Construction	2
2980:232	Construction	3
2980:234	Elements of Structures	3
2980:237	Materials Testing I	2
2980:238	Materials Testing II	2
2980:241	Strength of Materials	3
2980:245	Cost Analysis and Estimating	3
2980:250	Structural Drafting	2
7600:105	Introduction to Public Speaking	3
	or	
7600:106	Effective Oral Communications	3
Surveying		
2020:121	English	4
2020:222	Technical Report Writing	3
2030:152	Elements of Mathematics II	2
2030:153	Elements of Mathematics III	2
2030:154	Elements of Mathematics IV	3
2030:255	Elements of Calculus	3
2040:242	American Urban Society	3
2040:247	Survey of Basic Economics	3
2820:131	Software Applications for Technology	2
2820:161	Technical Physics: Mechanics I	2
2820:162	Technical Physics: Mechanics II	2
2820:163	Technical Physics: Electricity and Magnetism	
	or	
2820:164	Technical Physics: Heat and Light	2
2940:121	Technical Drawing I	3
2940:180	Introduction to Computer Aided Drafting	1
2980:101	Basic Surveying I	2
2980:102	Basic Surveying II	2
2980:123	Surveying Field Practice	2
2980:125	Statics	3
2980:222	Construction Surveying	3
2980:223	Fundamentals of Map Production	3
2980:224	Land Surveying	3
2980:225	Advanced Surveying	3
2980:226	Subdivision Design	3
2980:227	Introduction to Geographic and Land Information Systems	3
2980:232	Construction	3
2980:237	Materials Testing I	2
7600:105	Introduction Public Speaking	
	or	
7600:106	Effective Oral Communications	3

Associate of Technical Studies

The Associate of Technical Studies (ATS) program is available to adult students whose educational objectives and interests cannot be met through one of the formal associate degree programs.

Requirements

- Completion of the ATS application, including the selection of a minimum of one and a maximum of three major areas of study with a reasonable selection of courses from each area.
- Approval of the ATS application by the ATS coordinator, the faculty in the appropriate division(s), the ATS Committee, and the dean of the Community and Technical College.
- Application toward the degree of only that transfer course category and 14 semester credits in the basic course category.
- Completion of at least one half of the technical courses taken at The University of Akron in the approved area(s) of study at the 200 level or higher, to be equally divided among the selection areas, where applicable.
- Completion of a total of 64 semester credits with a grade-point average of 2.0.
- Completion of all other graduation requirements of The University of Akron.

Public Service Technology

2200: Educational Technology

This program prepares individuals for employment as child care workers, filling a variety of staff positions in either a day-care center, nursery school or Head Start program with infants, toddlers, and pre-Kindergarten children. Graduates can own their own center, run a family day care home, or be a center director.

Core Program		*Credits*
2020:121	English	4
2030:130	Introduction to Technical Math	3
2040:240	Human Relations	3
2040:242	American Urban Society	3
5540:xxx	Physical Education	1
5550:211	First Aid	2
5850:295	Education Technician Field Experience	5
7600:106	Effective Oral Communication	3
	Option Requirements	40
Child Development ††		
2200:245	Infant/Toddler Day-Care Programs	3
2200:250	Observing and Recording Children's Behavior	3
5200:310	Introduction to Early Childhood Education	3
5200:315	Issues and Trends in Early Childhood Education	3
5200:360	Teaching in the Nursery Center	2
5200:370	Nursery Center Laboratory	2
5610:450	Special Education Programming: Early Childhood	3
7400:132	Early Childhood Nutrition	2
7400:265	Child Development	3
7400:270	Theory and Guidance of Play	3
7400:280	Creative Activities for Pre-Kindergarten Children	4
7400:448	Before and After School Child Care	2
7400:460	Organization and Supervision of Child Care Centers	3
	Humanities Elective *	2-4
	General Elective	0-2

Pre-Kindergarten Associate Certification is available. See coordinator for other requirements for certification.

†† Must complete 7400:265, 275 and 5200:360, 370 and 310 before taking 5850:295. See academic adviser the previous semester.

* See department for list of humanities options.

2210: American Sign Language Interpreting and Transliterating Technology

This program prepares students who wish to become professional interpreters (or communication facilitators) between hearing and deaf/hearing impaired persons in educational, community or other settings.

Students are strongly advised to possess a basic foundation of fingerspelling and sign vocabularies prior to enrollment in the interpret ee program.

Requirements for Admission

Persons eligible for admission to the American Sign Language Interpreting and Transliterating Technology degree program must fulfill the following requirements:

- Demonstrate a grade of "B" or better in 2210:111; 2210:112; and 2210:114.
- Interview with the faculty.

		Credits
2020:121	English	4
2040:242	American Urban Society	3
2210:111	Intro. to Sign, Deafness & Interpreting Services	3
2210:112	American Sign Language I	4
2210:114	American Sign Language Semantics & Structure I	3
2210:122	American Sign Language II	4
2210:124	American Sign Language Semantics & Structure II	3
2210:126	Advanced Fingerspelling & Numbers	2
2210:128	The Profession of Interpreting	3
2210:232	American Sign Language III	4
2210:234	Translating/Interpreting Skills in English and ASL	4
2210:236	Consecutive Interpreting	4
2210:238	American Deaf Culture	3
2210:242	American Sign Language IV	4
2210:244	Simultaneous Interpreting	4
2210:246	The Interpreter in an Educational Setting	3
2210:248	Interpreting Practicum I	2
2210:252	Interpreting Practicum II	3
2210:254	Applied Ethics in Interpreting	4
2420:170	Business Math	3
	or	
2030:130	Introduction to Technical Mathematics	
3750:100	Introduction to Psychology	
	or	
2040:240	Human Relations	3
5540:xxx	Physical Education	1
7600:106	Effective Oral Communication	3

2220: Criminal Justice Technology

This program provides the student with a professional perspective of criminal justice through skills and technical functions and offers courses designed to develop a better understanding of our rapidly changing society.

2020:121	English	4
2020:222	Technical Report Writing	3
2030:151	Elements of Math I	2
2030:152	Elements of Math II	2
2040:240	Human Relations	3
2040:242	American Urban Society	3
2220:100	Introduction to Criminal Justice	3
2220:102	Criminal Law for Police	3
2220:104	Evidence and Criminal Legal Process	3
2220:106	Juvenile Justice Process	3
2220:240	Vice and Organized Crime	3
2220:250	Criminal Case Management	6
2220:296	Current Topics in Criminal Justice††	6
2220:298	Applied Ethics in Criminal Justice	3
2820:105	Basic Chemistry	3
3850:100	Introduction to Sociology	4
5540:xxx	Physical Education **	1
7600:106	Effective Oral Communication	3
2220:xxx	Technical Electives***	6

** The following are recommended: 139, Life Saving; 155, Swimming; 173, Self-Defense; or 174, Karate.

†† Changes by subject each semester. Must betaken twice for a total of six credits.

*** Graduates of an Ohio Basic Police Officers Training Academy may receive credit for 2220:xxx Technical Electives, six credits.

Options in Criminal Justice

Criminal Justice Advanced Officer Training

		Credits
2020:121	English	4
2020:222	Technical Report Writing	3
2030:151	Elements of Math I	2
2030:152	Elements of Math II	2
2040:240	Human Relations	3
2040:242	American Urban Society	3
2220:104	Evidence and Criminal Legal Process	3
2220:212	Traffic Accident Investigator	4
2220:222	Interview and Interrogation	3
2220:242	Organized Crime/Vice Crime	3
2220:252	Advanced Criminal Case Management	4
2220:262	Police Administration	3
2220:296	Current Topics in Criminal Justice††	6
2220:298	Applied Ethics in Criminal Justice	3
2230:250	Hazardous Materials	4
2820:105	Basic Chemistry	3
3850:100	Introduction to Sociology	4
3850:330	Criminology	3
5540:xxx	Physical Education	1
7600:106	Effective Oral Communication	3

Security Administration

2020:121	English	4
2020:222	Technical Report Writing	3
2030:151	Elements of Math I	2
2030:152	Elements of Math II	2
2040:240	Human Relations	3
2040:242	American Urban Society	3
2220:101	Introduction to Security	4
2220:102	Criminal Law for Police	3
2220:104	Evidence and Criminal Legal Procedure	3
2220:240	Vice and Organized Crime	3
2220:250	Criminal Case Management	6
2220:296	Current Topics in Criminal Justice††	3
2230:204	Fire Hazards Recognition	3
2230:250	Hazardous Materials	4
2230:257	Fire Protection for Business and Industry	3
2420:104	Introduction to Business	3
2440:103	Software Fundamentals	2
2820:105	Basic Chemistry	3
5540:xxx	Physical Education **	1
7600:106	Effective Oral Communication	3
2220:xxx	Technical Elective***	3

A student with a particular interest in corrections may vary the program of study by making the following substitutions: 3850:330 Criminology, three credits; 3850:432 Probation and Parole, three credits; or 2260:278 Techniques of Community Work, four credits; and 3850:431 Corrections, three credits, for courses: 2220:250 Criminal Case Management, six credits;and 2220:240 Dynamics of Vice Crime and Substance Abuse, three credits. Students must complete electives to equal the 64-credit program requirement.

** The following are recommended: 139, Life Saving; 155, Swimming; 173, Self-Defense; or 174, Karate.

†† Changes by subject each semester. Must betaken twice for a total of six credits.

*** Graduates of an Ohio Basic Police Officers Training Academy may receive credit for 2220:xxx Technical Electives, six credits.

2230: Fire Protection Technology

This program prepares persons to serve governmental, industrial and other fire protection agencies in fire fighting and prevention, property protection and in handling emergency situations.

		Credits
2020:121	English	4
2020:222	Technical Report Writing	3
2030:151	Elements of Math I	2
2030:152	Elements of Math II	2
2040:240	Human Relations	3
2040:242	American Urban Society	3
2230:100	Introduction to Fire Protection	3
2230:102	Fire Safety in Building Design and Construction	3
2230:104	Fire Investigation Methods	4
2230:153	Principles of Fire Protection and Safety	3
2230:204	Fire Hazards Recognition	3
2230:202	Fire Suppression and Emergency Response Methods	4
2230:205	Fire Detection and Suppression Systems I	3
2230:206	Fire Detection and Suppression Systems II	3
2230:250	Hazardous Materials	4
2230:254	Fire Codes and Standards	3
2230:257	Fire Protection for Business and Industry	3
2230:280	Fire Service Administration	4
2230:290	Special Topics in Fire Protection Technology	2-4
2230:295	Fire Protection Internship	4
2230:297	Independent Study: Fire Protection	1-3
2820:105	Basic Chemistry	3
7600:105	Introduction to Public Speaking	3
2230:xxx	Technical Electives	4

2260: Community Services Technology

This program prepares individuals for employment supportive of social work and of other professional community service personnel providing social services for individuals, families, groups and communities.

General Program

2020:121	English	4
2020:222	Technical Report Writing	3
2040:240	Human Relations	3
2040:241	Technology and Human Values	2
	or	
2040:244	Death and Dying	2
2040:242	American Urban Society	3
2040:254	The Black American	2
2240:120	Software Fundamentals	2
2260:100	Introduction to Community Services	3
2260:150	Introduction to Gerontological Services	3
2260:240	Chemical Dependency I	3
2260:260	Alcohol Use and Abuse	3
2260:277	Case Management in Community Services	3
2260:278	Techniques of Community Work	4
2260:279	Technical Experience: Community and Social Services	5
2540:141	WordPerfect, Beginning	2
3850:100	Introduction to Sociology	4
7600:106	Effective Oral Communication	3
7750:276	Introduction to Social Welfare	4
2260:xxx	Technical electives	8

Options

Alcohol Services

2260:261	Alcoholism Treatment	3
2260:262	Basic Helping Skills in Alcohol Problems	4
2260:263	Group Principles in Alcoholism	4
2260:264	Children of Alcoholics	3

Gerontology

1850:450	Interdisciplinary Seminar in Gerontology	2
1850:486	Retirement Specialist	2
2040:244	Death and Dying	2
7400:390	Family Relationships in Middle and Later Years	3
	Gerontology Electives	4

Social Services Emphasis †

		Credits
2020:121	English	4
2020:222	Technical Report Writing	3
2040:240	Human Relations	3
2040:242	American Urban Society	3
2040:247	Survey of Basic Economics	3
2040:254	The Black American	2
2260:100	Introduction to Community Services	3
2260:150	Introduction to Gerontological Services	3
2260:260	Alcohol Use and Abuse	3
2260:277	Case Management in Community Services	3
2260:278	Techniques of Community Work	4
2260:279	Technical Experience: Community and Social Service	5
3100:103	Natural Science: Biology	4
3300:112	English Composition II	3
3750:100	Introduction to Psychology	3
3850:100	Introduction to Sociology	4
7600:106	Effective Oral Communication	3
7750:270	Poverty in the United States	3
7750:276	Introduction to Social Welfare	4
7750:427	Human Behavior and Social Environment I	3

Technical Electives (suggested):

2200:245	Infant/Toddler Day-Care Programs	3
2220:106	Juvenile Justice Process	3
2260:210	Chemical Dependency and Prevention I	3
2260:211	Chemical Dependency and Prevention II	3
2260:230	Community-Based Residential Services	3
2260:240	Chemical Dependency I	3
2260:241	Chemical Dependency II	3
2260:290	Special Topics in Community Services Technology	2-4

2290: Legal Assisting Technology

2020:121	English	4
2020:222	Technical Report Writing	3
2030:151	Elements of Math I	2
2030:152	Elements of Math II	2
2040:240	Human Relations	3
2220:104	Evidence and Criminal Legal Process	3
2290:101	Introduction to Legal Assisting	3
2290:104	Basic Legal Research and Writing	3
2290:106	Business Associations	3
2290:108	Real Estate Transactions	3
2290:110	Tort Law	3
2290:112	Family Law	3
2290:118	Probate Administration	4
2290:204	Advanced Legal Research	3
2290:214	Civil Procedure	3
2290:216	Debtor-Creditor Relations	3
2290:218	Advanced Probate Administration	3
2290:220	Legal Assisting Internship	4
2420:211	Basic Accounting I	3
2440:103	Software Fundamentals	2
5540:xxx	Physical Education	1
7600:106	Effective Oral Communication	3
	General Electives	3
	Technical Electives	3

Recommended General Electives (choose one)

2040:242	American Urban Society	3
2040:247	Survey of Basic Economics	3
2040:251	Human Behavior at Work	3

Recommended Technical Electives (choose one)

2220:102	Criminal Law for Police	3
2220:106	Juvenile Justice Process	3

† For students who wish to pursue a baccalaureate degree in social work in a "2+2" arrangement. Prerequisites include 7750:427 Human Behavior in Social Work Environment (3) and 3100:103 Natural Sciences: Biology/Lab (4).

Wayne College

John P. Kristofco, Ph.D., *Dean*
William D. Bailey, M.A., *Assistant Dean and Director of Student Services*

HISTORY AND MISSION

To meet the needs of the citizens of Wayne, Holmes and Medina counties, The University of Akron–Wayne College opened its doors in 1972. Wayne College offers nine technical programs and nine certificate programs, as well as the first two years of most baccalaureate programs. The following degrees are available from The University of Akron–Wayne College: Associate of Arts; Associate of Science; Associate of Technical Studies; Associate of Applied Business in Business Management Technology, Health Care Office Management and in Office Administration; Associate of Applied Science in Environmental Health and Safety Technology, Computer Service and Network Technology, and Social Services Technology.

ADMISSIONS

Admission materials can be obtained by writing the Admissions Office at Wayne College or the Office of Admissions of The University of Akron, or by calling 683-2010 in the Orrville/Wooster area, or 1-800-221-8308 in Ohio.

The student enrolled at Wayne College may also take courses at the main campus of The University of Akron while attending Wayne College. Likewise, a student enrolled on the main campus may take courses at Wayne College. The University of Akron-Wayne College is accredited at the associate degree level by the North Central Association of Colleges and Schools.

WAYNE COLLEGE PROGRAMS

The following associate degree programs are available at Wayne College. The structure of these programs may differ from similar programs within the Community and Technical College of The University of Akron. All required courses for these programs are available at the college for students attending day or evening classes. A diploma issued as a result of the completion of one of these programs carries The University of Akron–Wayne College designation. In some instances, specific course sequencing is necessary, especially to the student attending full time, to accommodate completion of the program in two years. Please consult an adviser at Wayne College for further details.

Associate of Technical Studies

The Associate of Technical Studies (ATS) provides an integrated program of study for those students whose educational objectives and interests cannot be met through the college's formal associate degree programs. The Associate of Technical Studies permits students to combine various courses from two or more of the college's existing programs with other University credits, with credits earned at other postsecondary institutions, and/or with training received through other educational enterprises.

The Associate of Technical Studies is administered through the Office of the Dean and coordinated by the Interim Associate Dean for Academic Affairs. Interested students must complete a formal Associate of Technical Studies application. Upon application, the Interim Associate Dean for Academic Affairs makes an initial assessment of any transfer work and assists the applicant in selecting relevant areas of study. The application is then forwarded for review by the faculty most closely associated with the proposed area of study. Upon faculty acceptance, the application is submitted to the Associate of Technical Studies Committee who, upon approval, forwards the application to the dean of Wayne College for final approval.

The following are the graduation requirements for the Associate of Technical Studies:

- Completion of an Associate of Technical Studies application specifying a coherent combination of technical courses selectively drawn from two but no more than three major areas of study and reflecting a reasonable array of courses within each area of study.
- Approval of the Associate of Technical Studies application by the Interim Associate Dean for Academic Affairs, relevant faculty, the Associate of Technical Studies committee, and the dean of Wayne College.
- Degree application of only that transfer coursework completed with a "C" (2.0) grade or better.
- Completion of at least 14 credits of "general education" courses and 14 credits of "basic" courses, as required by the Ohio Board of Regents.
- Completion of at least one-half of the technical credits at The University of Akron and/or Wayne College, equally divided among the selected areas of study.
- Completion of a minimum of 64 credits with a grade point average of 2.0
- Completion of all other University graduation requirements.

2020: Associate of Arts/Associate of Science

The Associate of Arts and Associate of Science degree (sometimes referred to as the university parallel, transfer, or general education) programs are intended to produce an intelligent individual who understands effective social behavior and appreciates scientific fact and human values. The programs are designed to impart specific skills essential to effective adult functioning. These include the abilities to write and speak effectively, to calculate, and to think constructively and critically. The programs also provide a broad foundation of general knowledge about the physical and social universe as preparation for advanced baccalaureate study.

Most recipients of the Associate of Arts and the Associate of Science degrees transfer to bachelor's degree-granting institutions to complete their intellectual, professional, and cultural goals. The Associate of Arts and the Associate of Science degrees meet the general education requirements for most baccalaureate degree programs at The University of Akron and other college and universities through out the country.

Completing the Associate of Arts or the Associate of Science degree also fulfills the Transfer Module as outlined by the Ohio Board of Regents.

Arts Option

		Credits
3300:111	English Composition I	4
3300:112	English Composition II	3
3400:210	Humanities in the Western Tradition I[1]	4
7600:106	Effective Oral Communication	3
	Area Studies/Cultural Diversity Requirement[2]	4
	Humanities Requirement[1]	6
	Mathematics Requirement[3]	3
	Natural Sciences Requirement[4]	8
	Physical Education/Wellness	1
	Social Sciences Requirement[5]	6
	Electives[6]	22
		64

Science Option

3300:111	English Composition I	4
3300:112	English Composition II	3
3400:210	Humanities in the Western Tradition I[1]	4
7600:106	Effective Oral Communication	3
	Area Studies/Cultural Diversity Requirement[2]	4
	Humanities Requirement[1]	6
	Mathematics Requirement[3]	3
	Natural Sciences Requirement[4]	8
	Physical Education/Wellness	1
	Social Sciences Requirement[5]	6
	Electives[7]	22
		64

1 Students must have completed a minimum of 32 semester credits and have completed 3300:112 English Composition II before enrolling for this course. An additional six credits of humanities must also be completed. Please consult an adviser for specific options.

2 Students must complete two courses totaling four credits from the area studies/cultural diversity options. The engineering student is required to take only one course. Please consult an adviser for specific options.

3 Themathematics requirement varies by department. Please consult an adviser for specific requirements.

4 A minimum of eight credits of natural science are required. One course must have a laboratory component. However, departmental requirements may vary. Please consult an adviser for specific information.

5 Students may satisfy the General Education Requirement in the social sciences area by completing two courses totaling six credits from two different sets in the social science group. Please consult an adviser for specific information.

6 In the arts program, a student is free to choose any electives, but they must be in some logical sequence. They should lead to some upper-college degree program, i.e., arts and sciences, education, or fine and applied arts.

7 In the science program, a student is free to choose any electives. However, at least two-thirds of the credits must be in the natural sciences; mathematics, statistics or computer science; engineering; business administration; or nursing department; and should lead to some upper- college degree objective.

2260: Social Services Technology

This program prepares graduate for preprofessional employment in social work as Social Work Assistants. The curriculum combines learning experiences in the classroom with field work in human service organizations. With only four additional credits beyond the associate degree, it is also possible to complete a Certificate in Gerontological Social Services and a Certificate in Therapeutic Activities. While both the 2+2 and the general options can lead to immediate employment, the 2+2 also provides the first half of a bachelor's degree in social work at The University of Akron School of Social Work. All courses for the associate degree (2+2 option) apply toward the bachelor's degree. The 2+2 is highly recommended for most students.

General Option

		Credits
2040:240	Human Relations	3
2260:121	Social Service Techniques I	3
2260:122	Social Service Techniques II	3
2260:150	Introduction to Gerontological Services	3
2260:171	Career Issues in Social Services I	1
2260:172	Career Issues in Social Services II	1
2260:223	Social Service Techniques III	3
2260:260	Alcohol Use and Abuse	3
2260:273	Career Issues in Social Services III	1
2260:275	Therapeutic Practices	3
2260:285	Social Services Practicum I	1
2260:287	Social Services Practicum II	1
2260:294	Social Services Practicum Seminar	2
3300:111	English Composition I	4
3300:112	English Composition II	3
3750:100	Introduction to Psychology	3
3750:230	Developmental Psychology	4
3850:100	Introduction to Sociology	4
3850:104	Social Problems	3
7400:201	Courtship, Marriage and Family Relations	3
7600:106	Effective Oral Communication	3
7750:270	Poverty in the U.S.	3
7750:276	Introduction to Social Welfare	4
	Physical Education/Wellness	1
	Electives	3
		68

2+2 Option with Bachelor of Arts/Social Work degree

2260:121	Social Service Techniques I	3
2260:122	Social Service Techniques II	3
2260:150	Introduction to Gerontological Services	3
2260:171	Career Issues in Social Services I	1
2260:172	Career Issues in Social Services II	1
2260:223	Social Service Techniques III	3
2260:260	Alcohol Use and Abuse	3
2260:273	Career Issues in Social Services III	1
2260:285	Social Services Practicum I	1-2
2260:287	Social Services Practicum II	1-2
2260:294	Social Services Practicum Seminar	2
3100:103	Natural Science-Biology	4
3300:111	English Composition I	4
3300:112	English Composition II	3
3700:100	Government and Politics in the U.S.	4
3750:100	Introduction to Psychology	3
3850:100	Introduction to Sociology	4
7600:106	Effective Oral Communication	3
7750:270	Poverty in the U.S.	
7750:276	Introduction to Social Welfare	4
	Economics requirement	3
	Human Development requirement	3
	Natural Science requirement	4
	Physical Education/Wellness	1
	Social Services Elective(s)	1-3
		68

2420: Business Management Technology

Accounting Option

The Accounting Option provides paraprofessional training for a variety of accounting positions. Graduates will be prepared for immediate employment in the areas of financial accounting, sales, procurement, credit and collections, business research, data compilation and reporting.

		Credits
2040:247	Survey of Basic Economics	3
2040:251	Human Behavior at Work	3
2040:260	The Arts and Human Experience	3
2420:103	Essentials of Management Technology	3
2420:104	Introduction to Business	3
2420:171	Business Calculations	3
2420:211	Basic Accounting I	3
2420:212	Basic Accounting II	3
2420:213	Basic Accounting III	3
2420:214	Essentials of Intermediate Accounting	3
2420:216	Survey of Cost Accounting	3
2420:217	Survey of Taxation	4
2420:218	Automated Bookkeeping	2
2420:243	Survey in Finance	3
2420:280	Essentials of Business Law	3
2440:103	Software Fundamentals	2
2440:125	Spreadsheet Software	2
2540:119	Business English	3
2540:263	Business Communications	3
2540:289	Career Development for Business Professionals	3
3300:111	English Composition I	4
7600:106	Effective Oral Communication	3
	Physical Education/Wellness	1
	Elective	1
		67

Data Management Option – Software Emphasis

The Data Management Option-Software Emphasis prepares graduates to use personal computers effectively in a business environment. Graduates will be prepared to fill entry-level positions where microcomputers are used in office management, computer sales, or computer support.

2030:161	Mathematics for Modern Technology	4
2040:240	Human Relations	3
2040:247	Survey of Basic Economics	3
2040:260	The Arts and Human Experience	3
2420:101	Essentials of Marketing Technology	3
2420:103	Essentials of Management Technology	3
2420:104	Introduction to Business	3
2420:202	Personnel Practices	3
2420:211	Basic Accounting I	3
2420:212	Basic Accounting II	3
2420:218	Automated Bookkeeping	2
2420:243	Survey in Finance	3
2420:280	Essentials of Business Law	3
2440:102	Introduction to Windows	1
2440:103	Software Fundamentals	2
2440:125	Spreadsheet Software	2
2440:170	Visual BASIC	3
2440:245	Introduction to Databases for Micros	3
2440:270	Network Administration	3
2540:119	Business English	3
2540:263	Business Communications	3
3300:111	English Composition I	4
7600:106	Effective Oral Communication	3
	Physical Education/Wellness	1
		67

Data Management Option – Networking Emphasis

The use of networked microcomputers in business is pervasive. Wayne College's associate degree in Business Management Technology— Data Management with Network Emphasis will prepare students to meet the challenges of an exciting career in the computer network industry. The Data Management program incorporates Novell, Inc. Standard courses and prepares students to qualify for Novell's Certified Novell Engineer (CNE) certification. CNE certification is highly prized and recognized by the computer industry. Graduates of this program will be prepared to fill first-level positions which require skills in local area network administration and support.

		Credits
2030:161	Mathematics for Modern Technology	4
2040:240	Human Relations	3
2040:247	Survey of Basic Economics	3
2040:260	The Arts and Human Experience	3
2420:101	Essentials of Marketing Technology	3
2420:103	Essentials of Management Technology	3
2420:104	Introduction to Business	3
2420:202	Personnel Practices	3
2420:211	Basic Accounting I	3
2420:212	Basic Accounting II	3
2420:243	Survey in Finance	3
2420:280	Essentials of Business Law	3
2440:102	Introduction to Windows	1
2440:270	Network Administration	3
2440:272	Network Technologies	2
2440:274	Network Service and Support	3
2440:276	Network Advanced Administration	2
2440:278	Network Directory Design and Implementation	2
2440:279	Network Building Intranets with IntranetWare	1
2440:280	Network Installation and Configuration	1
2540:119	Business English	3
2540:263	Business Communications	3
3300:111	English Composition I	4
7600:106	Effective Oral Communication	3
	Physical Education/Wellness	1
		66

Network Electives:

2440:275	TCP/IP Fundamentals	2

General Business Option

The General Option provides training in varied business activities in preparation for first-level management positions in business, industry, government and non-profit organizations or as a self-employed manager.

2040:240	Human Relations	3
2040:247	Survey of Basic Economics	3
2040:251	Human Behavior at Work	3
2040:260	The Arts and Human Experience	3
2420:101	Essentials of Marketing Technology	3
2420:103	Essentials of Management Technology	3
2420:104	Introduction to Business	3
2420:171	Business Calculations	3
2420:202	Personnel Practices	3
2420:211	Basic Accounting I	3
2420:212	Basic Accounting II	3
2420:218	Automated Bookkeeping	2
2420:243	Survey in Finance	3
2420:280	Essentials of Business Law	3
2440:103	Software Fundamentals	2
2540:119	Business English	3
2540:140	Keyboarding for Nonmajors	2
2540:263	Business Communications	3
2880:232	Labor-Management Relations	3
3300:111	English Composition I	4
7600:106	Effective Oral Communication	3
	Physical Education/Wellness	1
	Electives	2
		64

Sales and Services Option

The Sales and Service Option prepares graduates for entry-level sales or service support positions with special emphases in banking, financial services, general sales, insurance, and real estate.

2040:247	Survey of Basic Economics	3
2040:251	Human Behavior at Work	3
2040:260	The Arts and Human Experience	3
2420:101	Essentials of Marketing Technology	3
2420:103	Essentials of Management Technology	3
2420:104	Introduction to Business	3
2420:171	Business Calculations	3

		Credits
2420:211	Basic Accounting I	3
2420:218	Automated Bookkeeping	2
2420:243	Survey in Finance	3
2420:280	Essentials of Business Law	3
2440:103	Software Fundamentals	2
2520:210	Consumer Service Fundamentals	2
2520:212	Principles of Sales	3
2540:119	Business English	3
2540:263	Business Communications	3
3300:111	English Composition I	4
7600:106	Effective Oral Communication	3
	Physical Education/Wellness	1
	Emphasis Courses	15
		68

Bank Teller/Supervisor Emphasis

2420:113	Introduction to Banking	2
2420:202	Personnel Practices	3
2420:212	Basic Accounting II	3
2420:233	Installment Credit	2
2420:253	Elements of Bank Management	2
2440:125	Spreadsheet Software	2
	and	
2440:102	Introduction to Windows	1
	or	
2440:245	Introduction to Databases for Micros	3

Financial Services Emphasis

2420:125	Personal Financial Counseling	3
2420:212	Basic Accounting II	3
2420:217	Survey of Taxation	4
2420:234	Survey of Investment Products and Services	3
2440:125	Spreadsheet Software	2

General Sales Emphasis

2520:103	Principles of Advertising	3
2520:106	Visual Promotion	3
2520:202	Retailing Fundamentals	3
	or	
2520:203	Fundamentals of Industrial Distribution	3
2520:219	Sales Projects	2
3250:248	Consumer Economics	3
	Elective	1

Insurance Client Services Emphasis

2420:206	Survey of Insurance Products and Services I	3
2420:207	Survey of Insurance Products and Services II	3
2440:245	Introduction to Databases for Micros	3
2540:121	Introduction to Office Procedures	3
2540:289	Career Development for Business Professionals	3

Real Estate Emphasis

2420:202	Personnel Practices	3
2430:105	Real Estate Principles	2
2430:185	Real Estate Law	2
2430:245	Real Estate Finance	2
2430:255	Valuation of Residential Property	2
2440:125	Spreadsheet Software	2
	and	
2440:102	Introduction to Windows	1
	or	
2440:245	Introduction to Databases for Micros	3

2530: Health Care Office Management

The Health Care Office Management program is designed to meet the needs of current health care office employees and others to develop skills to prepare for technical, supervisory, or management positions in the heath care field. Graduates will be trained for the daily operation and general management of the health care office practice. The responsibilities include all administrative, financial, personnel, clerical and supply functions.

2040:240	Human Relations	3
2040:251	Human Behavior at Work	3
2040:260	The Arts and Human Experience	3
2420:103	Essentials of Management Technology	3
2420:202	Personnel Practices	3
2420:211	Basic Accounting I	3
2440:103	Software Fundamentals	2
2530:241	Heath Information and Record Management	3

		Credits
2530:245	Reimbursement Payment Systems in Health Care	3
2530:255	Health Care Office Management & Medicolegal Issues	3
2530:260	Health Care Office Management Internship	2
2540:119	Business English	3
2540:121	Introduction to Office Procedures	3
2540:253	Business Communications	3
2540:256	Medical Office Procedures	3
2540:284	Office Nursing Techniques I	2
2540:289	Career Development for Business Professionals	3
2740:120	Medical Terminology	3
2740:121	Study of Disease Processes for Medical Assisting	3
2740:230	Basic Pharmacology	3
3300:111	English Composition I	4
5550:211	First Aid & CPR	2
7600:106	Effective Oral Communications	3
	Physical Education/Wellness	1
		67

2540: Office Administration

The Wayne College Office Administration program prepares students for different but often overlapping fields of administrative assisting, secretarial, word processing, information management, or clerical work. This program is based on personal objectives; students choose from program options that prepare them for work as an executive assistant, a legal administrative assistant, or a health care administrative assistant. Associate degree courses may be applied toward a four-year business education or technical education degree.

Executive Assistant Option

2040:240	Human Relations	3
2040:260	The Arts and Human Experience	3
2420:103	Essentials of Management Technology	3
2420:171	Business Calculations	3
2420:211	Basic Accounting I	3
2440:102	Introduction to Windows	1
2440:125	Spreadsheet Software	2
2540:119	Business English	3
2540:121	Introduction to Office Procedures	3
2540:150	Beginning Keyboarding	3
2540:151	Intermediate Word Processing	3
2540:241	Information Management	3
2540:243	Internship	3
2540:253	Advanced Word Processing	3
2540:263	Business Communications	3
2540:270	Office Software Applications	4
2540:271	Desktop Publishing	3
2540:273	Computer-Based Graphics Presentation	3
2540:281	Machine Transcription	3
2540:289	Career Development for Business Professionals	3
3300:111	English Composition I	4
7600:106	Effective Oral Communication	3
	Physical Education/Wellness	1
	Elective	1
		66

Legal Administrative Assistant Option

2040:240	Human Relations	3
2040:260	The Arts and Human Experience	3
2420:171	Business Calculations	3
2420:211	Basic Accounting I	3
2420:280	Essentials of Business Law	3
2440:102	Introduction to Windows	1
2440:125	Spreadsheet Software	2
2540:119	Business English	3
2540:121	Introduction to Office Procedures	3
2540:150	Beginning Keyboarding	3
2540:151	Intermediate Word Processing	3
2540:241	Information Management	3
2540:243	Internship	3
2540:253	Advanced Word Processing	3
2540:263	Business Communications	3
2540:273	Computer-Based Graphics Presentation	3
2540:279	Legal Office Procedures	4
2540:281	Machine Transcription	3
2540:289	Career Development for Business Professionals	3
3300:111	English Composition I	4
7600:106	Effective Oral Communication	3
	Physical Education/Wellness	1
	Elective	1
		64

Health Care Administrative Assistant Option

		Credits
2040:240	Human Relations	3
2040:260	The Arts and Human Experience	3
2420:171	Business Calculations	3
2440:103	Software Fundamentals	2
2530:241	Health Information and Management	3
2530:245	Reimbursement Payment Systems in Health Care	3
2540:119	Business English	3
2540:121	Introduction to Office Procedures	3
2540:151	Intermediate Word Processing	3
2540:243	Internship	2
2540:253	Advanced Word Processing	3
2540:256	Medical Office Procedures	3
2540:263	Business Communications	3
2540:282	Medical Machine Transcription	3
2540:284	Office Nursing Techniques I	2
2540:289	Career Development for Business Professionals	3
2740:120	Medical Terminology	3
2740:121	Study of Disease Processes for Medical Assisting	3
2740:230	Basic Pharmacology	3
3300:111	English Composition I	4
5550:211	First Aid	2
7600:106	Effective Oral Communication	3
	Physical Education/Wellness	1
		64

2600: Computer Service and Network Technology

This program prepares the individual for employment in support of computer systems in a networked environment. Graduates will be prepared to configure, install, maintain, upgrade, troubleshoot, and repair various networked computer systems used in manufacturing and service enterprises. Graduates will also be prepared to support hardware areas of computer system communications, such as modems, and related electronics including power supplies, memory, microprocessors, and the interface between the system and peripheral components. Additionally, graduates will be prepared to support software areas of computer system operating systems, such as DOS/Windows, and related software including word-processing, spreadsheet, and database management. The Novell NetWare networking courses satisfy Novell's Certified Novell Engineer (CNE) course requirements. Graduates of this program have assumed positions in the computer and networking support industry such as: computer service technician, systems analyst, networking technician, PC specialist, and computer systems specialist.

2020:222	Technical Report Writing	3
2030:151	Elements of Math I	2
2030:152	Elements of Math II	2
2040:251	Human Behavior at Work	3
2440:102	Introduction to Windows	1
2440:121	Introduction to Logic/Programming	3
2440:125	Spreadsheet Software	2
2440:245	Introduction to Databases for Micros	3
2440:270	Network Administration	3
2440:272	Networking Technologies	2
2440:274	Network Service and Support	3
2440:276	Network Advanced Administration	2
2440:278	Network Directory Design and Implementation	2
2440:279	Network Building Intranets with IntranetWare	1
2440:280	Network Installation and Configuration	1
2440:290	Special Topics: PC-DOS Fundamentals	1
2540:286	Microsoft Word for Windows	3
2600:100	Basic Electronics for Technicians	5
2600:125	Digital Electronics for Technicians	4
2600:155	Microprocessor Assembly Language Programming	2
2600:160	Personal Computer Repair	4
2600:180	Microprocessor Service Practicum	2
2600:185	Microprocessor Service Practicum Seminar	1
2600:190	Microprocessor Systems Architecture	3
3300:111	English Composition I	4
7600:106	Effective Oral Communications	3
	Physical Education/Wellness	1
	Approved Basic or Technical Elective	1
		67

2800: Environmental Health and Safety Technology

This program is to prepare students for employment in business, industry, and government as environmental health and safety technicians. The environmental health and safety technician carries out organizational plans intended to ensure a healthy and safe work and community environment. Specifically, the technician monitors, records, and reports on the handling, processing, and disposal of materials and products in compliance with local, state, federal, and organizational standards and trains and advises supervisory and operational personnel in the provision of a safe and healthy environment.

Graduates of the program will possess knowledge and laboratory skills sufficient to enable them to understand, communicate, and effectively address most environmental health and safety issues and will understand the legal and regulatory system within which modern industry operates. Environmental consulting firms, manufacturers, medical facilities, regulatory agencies, and waste treatment plants can hire graduates in entry-level positions to monitor and control wastes and to assist them in complying with local, state, and federal regulations and regulatory agencies.

		Credits
2020:222	Technical Report Writing	3
2040:251	Human Behavior at Work	3
2230:250	Hazardous Materials	4
2230:257	Fire Protection for Business and Industry	3
2420:104	Introduction to Business	3
2800:200	Physics for Environmental Technicians	1
2800:210	Occupational Safety and Risk	3
2800:220	Environmental Law and Regulations	3
2800:230	Water and Atmospheric Pollution	3
2800:232	Environmental Sampling Laboratory	2
2800:250	Internship: Environmental Health and Safety	3
3100:104	Introduction to Ecology Laboratory	1
3100:105	Introduction to Ecology	2
3100:130	Principles of Microbiology	3
3150:110	Introduction to General, Organic and Biochemistry I	3
3150:111	Introduction to General, Organic and Biochemistry Laboratory I	1
3150:112	Introduction to General, Organic and Biochemistry II	3
3150:113	Introduction to General, Organic and Biochemistry Laboratory II	1
3300:111	English Composition I	4
3370:200	Environmental Geology	3
3470:260	Basic Statistics	3
3600:120	Introduction to Ethics	3
5550:211	First Aid and CPR	2
6200:250	Computer Applications for Business	3
7600:106	Effective Oral Communications	3
		66

CERTIFICATE PROGRAMS

Certificate programs are designed to provide students with specialized job training utilizing courses from the college's associate degree programs. These courses may subsequently be applied toward the Associate of Applied Business in Office Administration or Business Management Technology degrees, the Associate of Applied Science in Social Services Technology degree, or the Associate of Applied Science in Computer Service and Network Technology.

Gerontological Social Services Certificate

Recipients of this certificate gain knowledge and skills to support social service employment in nursing homes, retirement communities, senior centers and nutrition sites, and similar settings. Although the elderly are the fastest growing group in our society and there are growing demands for individuals to work with older adults, there is a shortage of workers with specialized training in the field of aging. Therefore, this certificate enhances employability, especially when combined with an associate degree in Social Services Technology. With just one additional credit, it is possible to receive a Certificate in Therapeutic Activities.

2260:121	Social Service Techniques I	3
2260:122	Social Service Techniques II	3
2260:150	Introduction to Gerontological Services	3
2260:171	Career Issues in Social Services I	1
2260:172	Career Issues in Social Services II	1
2260:251	Community Services for Senior Citizens	3
2260:275	Therapeutic Activities	3
2260:285	Social Services Practicum I	1-2
2260:294	Social Services Practicum Seminar	1
3100:103	Natural Science: Biology	4
3100:108	Introduction to Biological Aging	3
3300:111	English Composition I	4
7750:276	Introduction to Social Welfare	4
		~~28~~ 34

Information Processing Specialist Certificate

The use of networked microcomputers in business is pervasive. The purpose of the Information Processing Specialist certificate is to assure employers that individuals involved in information processing possess skills in the use of the most current technology. This certificate program will provide college credit for those in supervisory, managerial and support positions related to the area of information storage, retrieval and processing. Course work can also be applied toward the Associate of Applied Business in Business Management Technology degree or to the Associate of Technical Studies. A student does not have to be pursuing a degree in order to receive the certificate.

		Credits
2040:240	Human Relations	3
2420:103	Essentials of Management Technology	3
2420:104	Introduction to Business	3
2420:211	Basic Accounting I	3
2420:218	Automated Bookkeeping	2
2440:102	Introduction to Windows	1
2440:103	Software Fundamentals	2
2440:125	Spreadsheet Software	2
2440:170	Visual BASIC	3
2440:245	Introduction to Databases for Micros	3
2440:270	Network Administration	3
2540:119	Business English	3
2540:263	Business Communications	3
		34

Legal Office Assistant

This certificate prepares students for an entry-level office support position in the legal field. The program focuses on business law, legal office procedures, communication, and computer skills. All course work is applicable to the Legal Administrative Assistant associate degree. Office Administration-Executive Assistant option students may want to consider obtaining this certificate in conjunction with their associate degree to increase employment opportunities.

A minimum keyboarding speed of 35 words a minute is required upon entering the program as well as a basic knowledge of computers.

2420:171	Business Calculations	3
2420:280	Essentials of Business Law	3
2540:119	Business English	3
2540:121	Introduction to Office Procedures	3
2540:151	Intermediate Word Processing	3
2540:253	Advanced Word Processing	3
2540:263	Business Communications	3
2540:279	Legal Office Procedures	4
2540:281	Editing, Proofreading & Transcription	3
2540:289	Career Development for Business Professionals	3
		31

Medical Billing Certificate

The Medical Billing Certificate is designed for those who wish to become medical billing specialists. This certificate will prepare individuals to work in hospitals, nursing homes, outpatient clinics, medical group practices, health maintenance organizations, medical billing services, and insurance companies.

2420:211	Basic Accounting I	3
2440:103	Software Fundamentals	2
2530:241	Health Information and Records Management	3
2530:245	Reimbursement Payment Systems in Health Care	3
2540:119	Business English	3
2540:121	Introduction to Office Procedures	3
2540:151	Intermediate Word Processing	3
2540:256	Medical Office Procedures	3
2540:263	Business Communications	3
2740:120	Medical Terminology	3
2740:121	Study of Disease Processes for Medical Assisting	3
		32

Medical Transcription Certificate

There is substantial demand for high-quality medical transcriptionists. This certificate will prepare individuals for entry-level positions in physicians' offices, hospitals, clinics, medical centers, government facilities, transcription services and home offices.

2530:241	Health Information Management	3
2540:119	Business English	3
2540:121	Introduction to Office Procedures	3
2540:151	Intermediate Word Processing	3
2540:253	Advanced Word Processing	3
2540:256	Medical Office Procedures	3
2540:263	Business Communications	3

		Credits
2540:282	Medical Machine Transcription	3
2740:120	Medical Terminology	3
2740:121	Study of Disease Processes for Medical Assisting	3
2740:230	Basic Pharmacology	3
		33

Network Management Specialist Certificate

The use of networked microcomputers in business is pervasive. The purpose of the Network Management Specialist Certificate is to assure employers that individuals involved in the management of local area networks possess skills in the use of the most current technology.

This certificate program will provide collegiate credit for those in supervisory, managerial, and support positions related to local area network administration. Course work can also be applied toward the Associate of Applied Business in Business Management Technology degree or to the Associate of Technical Studies degree. A student does not have to be pursuing a degree in order to receive the certificate.

2040:240	Human Relations	3
2420:103	Essentials of Management Technology	3
2420:104	Introduction to Business	3
2440:102	Introduction to Windows	1
2440:103	Software Fundamentals	2
2440:270	Network Administration	3
2440:272	Network Technologies	2
2440:274	Network Service and Support	3
2440:276	Network Advanced Administration	2
2440:278	Network Directory Design and Implementation	2
2440:279	Network Building Intranets with IntranetWare	1
2440:280	Network Installation and Configuration	1
2540:119	Business English	3
2540:263	Business Communications	3
		32

Office Software Specialist Certificate

This certificate will instruct students to use the most popular software packages used in today's modern offices as well as the written and oral communications skills that employers require. All credits are applicable to the Associate of Applied Business degree in Office Administration - Executive Assistant option.

2440:102	Introduction to Windows™	1
2440:125	Spreadsheet Software	2
2540:119	Business English	3
2540:121	Introduction to Office Procedures	3
2540:151	Intermediate Word Processing	3
2540:241	Information Management	3
2540:253	Advanced Word Processing	3
2540:263	Business Communications	3
2540:271	Desktop Publishing	3
2540:273	Computer-Based Graphic Presentations	3
2540:289	Career Development for Business Professionals	3
7600:106	Effective Oral Communication	3
		33

Personal Computer Repair Certificate

This certificate is designed to prepare individuals to maintain and repair personal computers in enterprises where they are sold or where they are used in day-to-day operations.

2030:151	Elements of Math I	2
2030:152	Elements of Math II	2
2040:251	Human Behavior at Work	3
2440:102	Introduction to Windows	1
2440:290	Special Topics: PC-DOS Fundamentals	1
2600:100	Basic Electronics for Technicians	5
2600:160	Personal Computer Repair	4
2600:180	Microprocessor Service Practicum	2
2600:185	Microprocessor Service Practicum Seminar	1
2600:190	Microprocessor Systems Architecture	3
3300:111	English Composition I	4
7600:106	Effective Oral Communication	3
		31

Therapeutic Activities Certificate

This certificate prepares recipients for entry-level positions in activities in long-term care, an area with frequent job openings, and to meet the psychosocial needs of older adults through individual and group therapeutic activities in diverse settings. Combined with the Certificate in Gerontological Social Services, it also provides knowledge and skills to support social service roles with the elderly. While enhancing employability and effectiveness in the field of aging, much of the content can also be applied to diverse fields of practice and is helpful for work with numerous populations.

		Credits
2260:150	Introduction to Gerontological Services	3
2260:251	Community Services for Senior Citizens	3
2260:275	Therapeutic Activities	3
2260:276	Practicum in Therapeutic Activities	1
		10

GENERAL EDUCATION/ TRANSFER PROGRAM

Wayne College offers the first two years of general baccalaureate education for transfer to the Akron campus of The University of Akron or to any other college or university. General courses in communications, the humanities, cultural diversity, social sciences, mathematics and natural sciences are required, along with basic courses in the student's chosen field. For undecided students, this is the time to take courses from several areas in order to select a field most to their liking.

The following outlines represent the first two years of study for various bachelor's degree programs of The University of Akron. Some courses not currently available at Wayne College may also need to be completed in the first two years of selected University programs to assure proper course sequencing and timely completion of degree requirements. These programs are marked with an asterisk (*). Finally, completion of the courses listed may also qualify a student to receive either the Associate of Arts or the Associate of Science degree. Please consult a Wayne College adviser for further details.

3100: Biology

First Year		
3100:111	Principles of Biology I	4
3100:112	Principles of Biology II	4
3150:151	Principles of Chemistry I	3
3150:152	Principles of Chemistry I Lab	1
3150:153	Principles of Chemistry II	3
3150:154	Qualitative Analysis	2
3300:111	English Composition I	4
3300:112	English Composition II	3
3450:145	College Algebra	4
3450:149	Precalculus Mathematics	4
		32
Second Year		
3100:211	General Genetics	3
3100:217	General Ecology	3
3150:263	Organic Chemistry Lecture I	3
3150:264	Organic Chemistry Lecture II	3
3150:265	Organic Chemistry Laboratory I	2
3150:266	Organic Chemistry Laboratory II	2
3400:210	Humanities in the Western Tradition I	4
	Physical Education/Wellness	1
	Beginning Foreign Language	8
	Social Science Requirement	6
		35

3120: Medical Technology*

First Year		
3100:111	Principles of Biology I	4
3100:112	Principles of Biology II	4
3150:151	Principles of Chemistry I	3
3150:152	Principles of Chemistry I Lab	1
3150:153	Principles of Chemistry II	3
3150:154	Qualitative Analysis	2
3300:111	English Composition I	4
3300:112	English Composition II	3
3450:145	College Algebra	4
3450:149	Precalculus Mathematics	4
		32

* Certain courses not currently available at Wayne College may also need to be completed in the first two years of selected University programs to assure proper course sequencing and timely completion of degree requirements.

Second Year		*Credits*
3100:208	Human Anatomy and Physiology	4
3100:209	Human Anatomy and Physiology	4
3100:211	General Genetics	3
3100:212	General Genetics Laboratory (optional)	1
3150:263	Organic Chemistry Lecture I	3
3150:264	Organic Chemistry Lecture II	3
3150:265	Organic Chemistry Laboratory I	2
3150:266	Organic Chemistry Laboratory II	2
7600:106	Effective Oral Communication	3
	Physical Education/Wellness	1
	Social Science Requirement	6
		32

3150: Chemistry

First Year		
3150:151	Principles of Chemistry I	3
3150:152	Principles of Chemistry I Lab	1
3150:153	Principles of Chemistry II	3
3150:154	Qualitative Analysis	2
3300:111	English Composition I	4
3300:112	English Composition II	3
3450:149	Precalculus Mathematics	4
3450:221	Analytic Geometry-Calculus I	4
	Physical Education/Wellness	1
	Foreign Language Requirement	8
	or	
	Social Science Requirement	6
		31-33
Second Year		
3150:263	Organic Chemistry Lecture I	3
3150:264	Organic Chemistry Lecture II	3
3150:265	Organic Chemistry Laboratory I	2
3150:266	Organic Chemistry Laboratory II	2
3450:222	Analytic Geometry-Calculus II	4
3450:223	Analytic Geometry-Calculus III	4
3650:291	Elementary Classical Physics I	4
3650:292	Elementary Classical Physics II	4
7600:106	Effective Oral Communication	3
	Foreign Language Requirement	6-8
	or	
	Social Science Requirement	6
		35-37

3250: Economics

First Year		
3300:111	English Composition I	4
3300:112	English Composition II	3
3450:145	College Algebra	4
3450:215	Concepts of Calculus I	4
7600:106	Effective Oral Communication	3
	Beginning Foreign Language	8
	Natural Science Requirement	8
	Physical Education/Wellness	1
		35
Second Year		
3400:210	Humanities in the Western Tradition I	4
3250:200	Principles of Microeconomics	3
3250:201	Principles of Macroeconomics	3
	Areas Studies/Cultural Diversity Requirement	4
	Humanities Requirement	6
	Intermediate Foreign Language	6
	Social Science Requirement	3
	Electives	3
		32

3250:01 Labor Economics*

First Year		
3250:200	Principles of Microeconomics	3
3250:201	Principles of Macroeconomics	3
3300:111	English Composition I	4
3300:112	English Composition II	3
3450:145	College Algebra	4
3450:215	Concepts of Calculus I	4
7600:106	Effective Oral Communication	3
	Physical Education/Wellness	1
	Electives	7
		32

* Certain courses not currently available at Wayne College may also need to be completed in the first two years of selected University programs to assure proper course sequencing and timely completion of degree requirements.

Second Year		*Credits*
3400:210	Humanities in the Western Tradition I	4
	Areas Studies/Cultural Diversity Requirement	4
	Humanities Requirement	6
	Natural Science Requirement	8
	Social Science Requirement	3
	Electives	7
		32

3300: English*

First Year		
3300:111	English Composition I	4
3300:112	English Composition II	3
7600:106	Effective Oral Communication	3
	Beginning Foreign Language	8
	Mathematics Requirement	3
	Physical Education/Wellness	1
	Social Science Requirement	6
	Electives	4
		32
Second Year		
3400:210	Humanities in the Western Tradition I	4
	Areas Studies/Cultural Diversity Requirement	4
	Humanities Requirement	6
	Intermediate Foreign Language	6
	Natural Science Requirement	8
	Electives	4
		32

3350: Geography and Planning*

First Year		
3300:111	English Composition I	4
3300:112	English Composition II	3
3350:100	Introduction to Geography	3
	Mathematics Requirement	3
7600:106	Effective Oral Communication	3
	Beginning Foreign Language	8
	Physical Education/Wellness	1
	Social Science Requirement	3
	Electives	4
		32
Second Year		
3400:210	Humanities in the Western Tradition I	4
	Areas Studies/Cultural Diversity Requirement	4
	Humanities Requirement	6
	Intermediate Foreign Language	6
	Natural Science Requirement	8
	Electives	4
		32

3370: Geology (and Geophysics)**

First Year		
3300:111	English Composition I	4
3300:112	English Composition II	3
3150:151	Principles of Chemistry I	3
3150:152	Principles of Chemistry I Laboratory	1
3150:153	Principles of Chemistry II (optional for B.A.)	3
3150:154	Qualitative Analysis (optional for B.A. and B.S.)	2
3370:101	Introduction to Physical Geology	4
3450:149	Precalculus Mathematics	4
3450:221	Analytic Geometry-Calculus I (for B.S.)	4
	Physical Education/Wellness	1
	Social Science Requirement	6
	Electives (for B.A.)	4-9
		35
Second Year		
3100:111	Principles of Biology I (for B.A.)	4
	or	
3450:222	Analytic Geometry-Calculus II (for B.S.)	4
3370:102	Introduction to Historical Geology	4
3400:210	Humanities in the Western Tradition I **	4
7600:106	Effective Oral Communication	3
	Areas Studies/Cultural Diversity Requirement	4
	Humanities Requirement**	6
	Beginning Foreign Language	8
		33

* Certain courses not currently available at Wayne College may also need to be completed in the first two years of selected University programs to assure proper course sequencing and timely completion of degree requirements.

**Geophysics majors must take 3650:291 and 292, Elementary Classical Physics I and II during the second year instead of the humanities credits.

3400: History

First Year

		Credits
3300:111	English Composition I	4
3300:112	English Composition II	3
3400:250	U.S. History to 1877	4
3400:251	U.S. History since 1877	4
7600:106	Effective Oral Communication	3
	Beginning Foreign Language	8
	Mathematics Requirement	3
	Physical Education/Wellness	1
	Social Science Requirement	3
		33

Second Year

3400:210	Humanities in the Western Tradition I	4
3400:323	Europe: From Revolution to World War, 1789-1914	3
3400:324	Europe: From World War I to the Present	3
	Areas Studies/Cultural Diversity Requirement	4
	Humanities Requirement	6
	Intermediate Foreign Language	6
	Natural Science Requirement	8
		34

3450: Mathematics (and Applied Mathematics)*

(see 3470: Statistics below)

3470: Statistics

First Year

3300:111	English Composition I	4
3300:112	English Composition II	3
3450:221	Analytic Geometry-Calculus I	4
3450:222	Analytic Geometry-Calculus II	4
7600:106	Effective Oral Communication	3
	Natural Science Requirements	8
	Physical Education/Wellness	1
	Social Science Requirements	6
	or	
	Beginning Foreign Language	8
		33-35

Second Year

Students attending part time, or who are ineligible to take 3450:221 during the first year can take additional requirements at Wayne College during the second year. Students attending full time should go to the Akron campus in the second year to take required mathematics prerequisite courses. Please consult a Wayne College adviser.

3460: Computer Science*

Options

Business

First Year

3300:111	English Composition I	4
3300:112	English Composition II	3
3450:215	Concepts of Calculus I	4
3460:209	Introduction to Computer Science	4
7600:106	Effective Oral Communication	3
	Beginning Foreign Language	8
	Natural Science Requirement	4
	Social Science Requirement	3
		33

Second Year

3250:244	Introduction to Economic Analysis	3
3400:210	Humanities in the Western Tradition I	4
3450:216	Concepts of Calculus II	4
6200:201	Accounting Concepts and Principles for Business	3
6200:202	Managerial Accounting	3
	Area Studies/Cultural Diversity Requirement	4
	Intermediate Foreign Language	6
	Natural Science Requirement	4
	Physical Education/Wellness	1
		32

Mathematics

First Year

3300:111	English Composition I	4
3300:112	English Composition II	3
3450:221	Analytic Geometry-Calculus I	4
3460:209	Introduction to Computer Science	4
	Beginning Foreign Language	8
	Physical Education/Wellness	1
	Natural Science requirement	8
		32

* Certain courses not currently available at Wayne College may also need to be completed in the first two years of selected University programs to assure proper course sequencing and timely completion of degree requirements.

Second Year

		Credits
3400:210	Humanities in the Western Tradition I	4
3450:222	Analytic Geometry-Calculus II	4
3450:223	Analytic Geometry-Calculus III	4
7600:106	Effective Oral Communication	3
	Humanities Requirement	6
	Intermediate Foreign Language	6
	Social Studies requirement	6
		33

3700: Political Science*

First Year

3300:111	English Composition I	4
3300:112	English Composition II	3
3700:100	Government and Politics in the U.S.	4
7600:106	Effective Oral Communication	3
	Beginning Foreign Language	8
	Mathematics Requirement	3
	Physical Education/Wellness	1
	Social Science Requirement	3
	Electives	3
		32

Second Year

3400:210	Humanities in the Western Tradition I	4
	Areas Studies/Cultural Diversity Requirement	4
	Humanities Requirement	6
	Intermediate Foreign Language	6
	Natural Science Requirement	8
	Electives	4
		32

3750: Psychology*

First Year

3300:111	English Composition I	4
3300:112	English Composition II	3
3750:100	Introduction to Psychology	3
3750:105	Professional and Career Issues in Psychology	1
3850:100	Introduction to Sociology	4
7600:106	Effective Oral Communication	3
	Beginning Foreign Language	8
	Mathematics Requirement	3
	Physical Education/Wellness	1
	Electives	2
		32

Second Year

3400:210	Humanities in the Western Tradition I	4
	Areas Studies/Cultural Diversity Requirement	4
	Humanities Requirement	6
	Intermediate Foreign Language	6
	Natural Science Requirement	8
	Electives	4
		32

3850: Sociology*

First Year

3300:111	English Composition I	4
3300:112	English Composition II	3
3850:100	Introduction to Sociology	4
3850:104	Social Problems	3
7600:106	Effective Oral Communication	3
	Beginning Foreign Language	8
	Mathematics Requirement	3
	Physical Education/Wellness	1
	Social Science Requirement	3
		32

Second Year

3400:210	Humanities in the Western Tradition I	4
3870:150	Cultural Anthropology	4
	Areas Studies/Cultural Diversity Requirement	4
	Humanities Requirement	6
	Intermediate Foreign Language	6
	Natural Science Requirement	8
		32

* Certain courses not currently available at Wayne College may also need to be completed in the first two years of selected University programs to assure proper course sequencing and timely completion of degree requirements.

4200: Chemical Engineering*

		Credits
First Year		
3150:151	Principles of Chemistry I	3
3150:152	Principles of Chemistry I Laboratory	1
3150:153	Principles of Chemistry II	3
3150:154	Qualitative Analysis	2
3300:111	English Composition I	4
3300:112	English Composition II	3
3450:221	Analytic Geometry-Calculus I	4
3450:222	Analytic Geometry-Calculus II	4
4100:101	Tools for Engineering	3
4200:121	Chemical Engineering Computations	2
7600:106	Effective Oral Communication	3
	Physical Education/Wellness	1
		33
Second year		
3150:263	Organic Chemistry Lecture I	3
3150:264	Organic Chemistry Lecture II	3
3150:265	Organic Chemistry Laboratory I	2
3150:266	Organic Chemistry Laboratory II	2
3250:244	Introduction to Economic Analysis	3
3400:210	Humanities in the Western Tradition I	4
3450:223	Analytic Geometry-Calculus III	4
3450:235	Differential Equations	3
3650:291	Elementary Classical Physics I	4
3650:292	Elementary Classical Physics II	4
		32

4300: Civil Engineering*

First Year		
3150:151	Principles of Chemistry I	3
3150:152	Principles of Chemistry I Laboratory	1
3150:153	Principles of Chemistry II	3
3300:111	English Composition I	4
3300:112	English Composition II	3
3450:221	Analytic Geometry-Calculus I	4
3450:222	Analytic Geometry-Calculus II	4
4100:101	Tools for Engineering	3
7600:106	Effective Oral Communication	3
	Physical Education/Wellness	1
	Social Science Requirement	3
		32
Second Year		
3250:244	Introduction to Economic Analysis	3
3400:210	Humanities in the Western Tradition I	4
3450:223	Analytic Geometry-Calculus III	4
3450:235	Differential Equations	3
3650:291	Elementary Classical Physics I	4
3650:292	Elementary Classical Physics II	4
4300:201	Statics	3
4600:203	Dynamics	3
	Humanities Requirement	6
		34

4400: Electrical Engineering

First year		
3150:151	Principles of Chemistry I	3
3150:152	Principles of Chemistry I Laboratory	1
3150:153	Principles of Chemistry II	3
3300:111	English Composition I	4
3300:112	English Composition II	3
3450:221	Analytic Geometry-Calculus I	4
3450:222	Analytic Geometry-Calculus II	4
4100:101	Tools for Engineering	3
7600:106	Effective Oral Communication	3
	Physical Education/Wellness	1
	Social Science Requirement	3
		32
Second Year		
3250:244	Introduction to Economic Analysis	3
3450:223	Analytic Geometry-Calculus III	4
3450:235	Differential Equations	3
3650:291	Elementary Classical Physics I	4
3650:292	Elementary Classical Physics II	4
4300:201	Statics	3
4400:231	Circuits I	3
4400:232	Circuits II	3
4400:243	Signal Analysis	3
4400:340	Electric Circuits Laboratory	1
4450:208	Programming for Engineers	3
		34

* Certain courses not currently available at Wayne College may also need to be completed in the first two years of selected University programs to assure proper course sequencing and timely completion of degree requirements.

4600: Mechanical Engineering

		Credits
First Year		
3150:151	Principles of Chemistry I	3
3150:152	Principles of Chemistry I Laboratory	1
3150:153	Principles of Chemistry II	3
3300:111	English Composition I	4
3300:112	English Composition II	3
3450:221	Analytic Geometry-Calculus I	4
3450:222	Analytic Geometry-Calculus II	4
4100:101	Tools for Engineering	3
7600:106	Effective Oral Communication	3
	Physical Education/Wellness	1
	Social Science Requirement	3
		32
Second year		
3250:244	Introduction to Economic Analysis	3
3400:210	Humanities in the Western Tradition I	4
3450:223	Analytic Geometry-Calculus III	4
3450:235	Differential Equations	3
3650:291	Elementary Classical Physics I	4
3650:292	Elementary Classical Physics II	4
4300:201	Statics	3
4300:202	Introduction to Mechanics of Solids	3
4600:203	Dynamics	3
	Humanities Requirement	6
		37

5200: Elementary Education*

First Year		
3100:103	Natural Science-Biology	4
3300:111	English Composition I	4
3300:112	English Composition II	3
3350:100	Introduction to Geography	3
3400:250	United States History to 1877	4
	or	
3400:251	United States History since 1877	4
	or	
3700:100	Government and Politics in the U.S.	4
5570:101	Personal Health	2
7600:106	Effective Oral Communication	3
	Natural Science Requirement	4
	Physical Education/Wellness	1
	Mathematics Requirement	3
		31
Second Year		
3400:210	Humanities in the Western Tradition I	4
5050:210	Characteristics of Learners	3
5050:211	Teaching and Learning Strategies	3
5200:215	The Child, the Family and the School	3
5200:220	Visual Arts Culture	1
5200:245	Understanding Language Literacy	3
5200:250	Developing the Processes of Investigation	3
5550:334	Games & Rhythms: Elementary Grades	3
	Areas Studies/Cultural Diversity Requirement	4
	Humanities Requirement	6
	Concentration Area Course	3
		36

5300: Secondary Education*

First Year		
3300:111	English Composition I	4
3300:112	English Composition II	3
7600:106	Effective Oral Communication	3
	Mathematics Requirement	3
	Natural Science Requirement	8
	Physical Education/Wellness	1
	Social Science Requirement	6
	Teaching Field(s) Course	
	or	
	Electives	4
		32
Second year		
3400:210	Humanities in the Western Tradition I	4
5050:210	Characteristics of Learners	3
5050:211	Teaching and Learning Strategies	3
	Areas Studies/Cultural Diversity Requirement	4
	Humanities Requirement	6
	Teaching Field(s) Courses	
	or	
	Electives	12
		32

* Certain courses not currently available at Wayne College may also need to be completed in the first two years of selected University programs to assure proper course sequencing and timely completion of degree requirements.

6000: Business Administration

Options

Accounting, Finance, Management, Marketing, Advertising, International Business

First Year		Credits
3300:111	English Composition I	4
3300:112	English Composition II	3
3450:145	College Algebra	4
3450:215	Concepts of Calculus I	4
3750:100	Introduction to Psychology	3
	or	
3850:100	Introduction to Sociology	4
7600:106	Effective Oral Communication	3
	Natural Science Requirement	8
	Physical Education/Wellness	1
		30-31
Second Year		
3250:200	Principles of Microeconomics	3
3250:201	Principles of Macroeconomics	3
3400:210	Humanities in the Western Tradition I	4
6200:201	Accounting Concepts and Principles for Business	3
6200:202	Managerial Accounting	3
6200:250	Computer Applications for Business *(except Accounting majors)*	3
	or	
6200:255	Information Processing *(Accounting majors only)*	3
6400:220	Legal and Social Environment of Business *(except Accounting majors)*	3
6500:221	Quantitative Business Analysis I	3
6500:222	Quantitative Business Analysis II	3
	Areas Studies/Cultural Diversity Requirement	4
	Humanities Requirement	6
		35-38

7100: Art*

First Year		
3300:111	English Composition I	4
3300:112	English Composition II	3
7100:131	Introduction to Drawing	3
7100:144	Two-Dimensional Design	3
7100:xxx	Studio Art Courses	6
7600:106	Effective Oral Communication	3
	Physical Education/Wellness	1
	Social Science Requirement	6
	Electives	3
		32
Second Year		
3400:210	Humanities in the Western Tradition I	4
7100:xxx	Studio Art Courses	6
	Areas Studies/Cultural Diversity Requirement	4
	Humanities Requirement	6
	Mathematics Requirement	3
	Natural Science Requirement	8
	Electives	1
		32

7400: Family and Consumer Sciences*

Options

Clothing, Textiles and Interiors - Business

First Year		
2450:101	Essentials of Marketing Technology	3
3300:111	English Composition I	4
3300:112	English Composition II	3
3850:100	Introduction to Sociology	4
7600:106	Effective Oral Communication	3
	Economics Requirement	3
	Foreign Language Courses	
	or	
	Language Alternative Courses	8
	Physical Education/Wellness	1
	Mathematics Requirement	3
		32
Second Year		
3400:210	Humanities in the Western Tradition I	4
7400:201	Courtship, Marriage, and Family Relations	3
	Areas Studies/Cultural Diversity Requirement	4
	Humanities Requirement	6
	Natural Science Requirement	8
	Electives	7
		32

* Certain courses not currently available at Wayne College may also need to be completed in the first two years of selected University programs to assure proper course sequencing and timely completion of degree requirements.

Dietetics*

First Year		Credits
3150:110	Introduction to General, Organic and Biochemistry I	3
3150:111	Introduction to General, Organic and Biochemistry I, Laboratory	1
3150:112	Introduction to General, Organic and Biochemistry II	3
3150:113	Introduction to General, Organic and Biochemistry II, Laboratory	1
3300:111	English Composition I	4
3300:112	English Composition II	3
3470:260	Basic Statistics	3
3850:100	Introduction to Sociology	4
7400:201	Courtship, Marriage, and Family Relations	3
	or	
7400:265	Child Development	3
7600:106	Effective Oral Communication	3
	Economics Requirement	3
	Physical Education/Wellness	1
		32
Second Year		
3100:130	Principles of Microbiology	3
3100:208	Human Anatomy and Physiology	4
3100:209	Human Anatomy and Physiology	4
3400:210	Humanities in the Western Tradition I	4
3750:100	Introduction to Psychology	3
6200:201	Accounting Concepts and Principles for Business	3
	or	
2420:211	Basic Accounting I	3
	Areas Studies/Cultural Diversity Requirement	4
	Humanities Requirement	6
	Elective	1
		32

Family Life and Child Development

First Year		
3300:111	English Composition I	4
3300:112	English Composition II	3
3750:100	Introduction to Psychology (Family Life Option only)	3
3750:230	Developmental Psychology (Family Life Option only)	4
3850:100	Introduction to Sociology	4
7600:106	Effective Oral Communication	3
	Mathematics Requirement	3
	Economics Requirement	3
	Physical Education/Wellness	1
	Electives	4
		32
Second Year		
3400:210	Humanities in the Western Tradition I	4
7400:201	Courtship, Marriage, and Family Relations	3
7400:265	Child Development	3
7750:276	Introduction to Social Welfare (Family Life Option only)	4
	Areas Studies/Cultural Diversity Requirement	4
	Humanities Requirement	6
	Natural Science Requirement	8
		32

Food Science

First Year		
3150:110	Introduction to General, Organic and Biochemistry I	3
3150:111	Introduction to General, Organic and Biochemistry I, Laboratory	1
3150:112	Introduction to General, Organic and Biochemistry II	3
3150:113	Introduction to General, Organic and Biochemistry II, Laboratory	1
3300:111	English Composition I	4
3300:112	English Composition II	3
3470:260	Basic Statistics	3
7600:106	Effective Oral Communication	3
	Beginning Foreign Language	8
	or	
	Language Alternative Courses	8
	Economics Requirement	3
	Physical Education/Wellness	1
		33
Second Year		
2440:103	Software Fundamentals	2
3100:130	Principles of Microbiology	3
3400:210	Humanities in the Western Tradition I	4
3750:100	Introduction to Psychology	3
3850:100	Introduction to Sociology	4
7400:201	Courtship, Marriage, and Family Relations	3
	or	
7400:265	Child Development	3
	Areas Studies/Cultural Diversity Requirement	4
	Humanities Requirement	6
	Intermediate Foreign Language	6
	or	
	Language Alternative Courses	6
		35

* Certain courses not currently available at Wayne College may also need to be completed in the first two years of selected University programs to assure proper course sequencing and timely completion of degree requirements.

7600: Communication

First Year		*Credits*
3300:111	English Composition I	4
3300:112	English Composition II	3
7600:106	Effective Oral Communication	3
7600:102	Survey of Mass Communication	3
7600:115	Survey of Communication Theory	3
7600:200	Careers in Communication	1
	Mathematics Requirement	3
	Physical Education/Wellness	1
	Social Science Requirement	6
	Elective (typing/word processing recommended)	5
		32
Second Year		
3400:210	Humanities in the Western Tradition I	4
	Areas Studies/Cultural Diversity Requirement	4
	Communication Major Emphasis Courses	6
	Foreign Language Courses	
	or	
	Language Alternative Courses	8
	Humanities Requirement	6
	Natural Science Requirement	8
		36

7750: Social Work

First Year		
3300:111	English Composition I	4
3300:112	English Composition II	3
3470:260	Basic Statistics	3
3700:100	Government and Politics in the U.S.	4
3750:100	Introduction to Psychology	3
3850:100	Introduction to Sociology	4
7750:270	Poverty in the U.S.	3
7750:276	Introduction to Social Welfare	4
	Economics Requirement	3
	Physical Education/Wellness	1
		32
Second Year		
3100:103	Natural Science-Biology	4
3400:210	Humanities in the Western Tradition I	4
7600:106	Effective Oral Communication	3
7750:xxx	Social Work Requirements	8
	Areas Studies/Cultural Diversity Requirement	4
	Humanities Requirement	6
	Natural Science Requirement	4
	Social Science elective	3
		36

8200: Nursing

First Year		*Credits*
3100:130	Principles of Microbiology	3
3150:110	Introduction to General, Organic and Biochemistry I	3
3150:111	Introduction to General, Organic and Biochemistry I, Laboratory	1
3150:112	Introduction to General, Organic and Biochemistry II	3
3150:113	Introduction to General, Organic and Biochemistry II, Laboratory	1
3300:111	English Composition I	4
3300:112	English Composition II	3
3600:120	Introduction to Ethics	3
3750:100	Introduction to Psychology	3
3850:100	Introduction to Sociology	4
	or	
3870:150	Cultural Anthropology	4
8200:100	Introduction to Nursing	1
	Economics Requirement	3
	Physical Education/Wellness	1
		33

Students are eligible to apply to the College of Nursing during spring semester of the first year if they have completed all of the courses listed above and attained a grade point average of 2.50 or higher. If the student is accepted into the college, attendance at the Akron campus is necessary during the second year in required clinical nursing courses. The following list of courses may be taken at Wayne College during the second year by students who do not satisfy the admission requirements.

Second Year		
3100:208	Human Anatomy and Physiology	4
3100:209	Human Anatomy and Physiology	4
3400:210	Humanities in the Western Tradition I	4
3470:260	Basic Statistics	3
3750:230	Developmental Psychology	4
7600:106	Effective Oral Communication	3
	Areas Studies/Cultural Diversity Requirement	4
	Humanities Requirement	3
	Electives	3
		32

University College

Karla Mugler, Ph.D., *Dean*
Virgil Starks, III, M.A., *Associate Dean and Director of Minority Affairs*
Anne Goodsell Love, Ph.D., *Retention Coordinator*
Joseph Migden, Ph.D., *Interim Director, Academic Advisement Center*
Diane Vukovich, Ph.D., *Interim Director of Developmental Programs*

OBJECTIVES

The purpose of the University College is to further the objectives of The University of Akron by providing a quality program of collegiate education and to pursue the following aims:

- To offer students a basic program of General Education and the prerequisite courses for advancement to the degree-granting colleges.
- To offer a program of courses to prepare students for enrollment in General Education courses.
- To provide academic support services for students to strengthen their basic skills and facilitate their success in college courses.
- To assist new students in their transition to college through a comprehensive New Student Orientation program prior to enrollment, as well as a semester-length University Orientation Course.
- To direct students to the proper curricula to ensure that students will enter their degree-granting colleges prepared to undertake advanced course work.
- To encourage, foster, and support departmental, collegiate, and community programs and projects which further intercultural awareness and international understanding.
- To ensure for transfer students a smooth transition to The University of Akron.

The college recommends the student for advancement to the degree-granting colleges upon satisfactory completion of the appropriate requirements.

A student who completes 30 semester credits and achieves a grade-point average of 2.00 ("C") or better may be eligible for transfer to a degree-granting college. A student should always check with an adviser to determine specific requirements for transfer to the program of the student's choice.

Acceptance of a student in a degree-granting college is the responsibility of the respective collegiate dean, the dean of the University College, and heads of departments concerned.

GENERAL EDUCATION

(effective for students admitted Fall 1994 and thereafter)

The General Education Program of The University of Akron is the core of courses that provide the skills and knowledge considered essential for all graduates of the University. The General Education Program is designed to ensure, insofar as possible, that our graduates will possess:

- the capacity for critical, independent thought.
- a personal sense of values, tempered by tolerance and a regard for the rights of others.
- the ability to use language effectively as a medium of both thought and expression.
- the analytical skills necessary to make sound qualitative and quantitative judgements.
- the ability to describe and explain differences in civilizations and cultures.
- an understanding of the conditions that affect them as individuals and as members of society.
- the capacity to evaluate intellectual and artistic achievements.
- a knowledge of science, technology, and mathematics and their effects on human activities.
- a knowledge of positive mental and physical health practices.

Recommended Core Curriculum

Students entering the University in the fall of 1994 or thereafter must complete the General Education Program, which consists of 42 credits distributed among eight categories. Students are advised to select General Education courses in conjunction with courses needed for their major during their first few years of study. **Students should work to complete their English, Mathematics, and Speech requirements during their first year of study.** *Courses noted with a single asterisk (*) will apply toward the General Education requirement only for students enrolled in the Community and Technical College.* All students are responsible for meeting prerequisites for the necessary courses listed in the General Education Program. **NOTE:** Specific departmental requirements may vary, so students are encouraged to consult an adviser for specific information about selecting appropriate General Education courses from the recommended core curriculum.

English Composition: 7 credits – 2 courses

		Credits
2020:121	English*	4
	or	
3300:111	English Composition I	4
3300:112	English Composition II	3

Mathematics: 3 credits

(Students enrolling in a higher-level math course may use this course to meet their General Education requirement)

2030:151,152,153	Elements of Math I, II, III*	6
(Must complete all 3 courses. Only 3 credits apply toward fulfilling General Education requirement)		
2030:161	Math for Modern Technology*	4
3450:113	Combinatorics/Probability	1
3450:114	Matrices	1
3450:115	Linear Programming	1
3450:127	Trigonometry	2
3450:135	Math for Liberal Arts	3
3450:138	Math of Finance	1
3450:140	Math for Elementary Teachers	3
3450:145	College Algebra	4
3450:289A/B	Mathematics for Business I/II	3
3470:260	Basic Statistics	3
3470:261	Introduction to Statistics I	2
3470:262	Introduction to Statistics II	2

Natural Science: 8 credits minimum – At least two courses, one of which must be a lab

(Students in higher-level science courses with a lab may use those courses to meet their General Education requirements.) Select one course each from a minimum of two different sets:

Anthropology		
3870:151	Human Evolution	3
Biology		
2780:106	Anatomy and Physiology for Allied Health I*	3
2780:107	Anatomy and Physiology for Allied Health II*	3
3100:100	Introduction to Botany/Lab (Wayne College only)	4
3100:101	Introduction to Zoology/Lab (Wayne College only)	4
3100:103	Natural Science Biology/Lab	4
3100:104	Introduction to Ecology Lab*	1
3100:105	Introduction to Ecology*	2
3100:108	Introduction to Biological Aging (Wayne College only)	3
Chemistry		
2820:105	Basic Chemistry*	3
2820:111	Introductory Chemistry*	3
2820:112	Introductory and Analytical Chemistry*	3
3150:100	Chemistry and Society	3
Geology		
3370:100	Earth Science	3
3370:103	Natural Science Geology	3
3370:121-138	Concepts in Geology	1
3370:200	Environmental Geology	3
3370:201	Exercises in Environmental Geology I/Lab	1
3370:203	Exercises in Environmental Geology II/Lab	1

* Will apply toward the General Education requirement only for students enrolled in the Community and Technical College.

Physics

		Credits
2820:161	Technical Physics: Mechanics I*	2
2820:162	Technical Physics: Mechanics II*	2
2820:163	Technical Physics: Electricity and Magnetism*	2
2820:164	Technical Physics: Heat and Light*	2
3650:130	Descriptive Astronomy/Lab	4
3650:133	Music, Sound and Physics/Lab	4
3650:137	Light/Lab	4

Oral Communication: 3 credits

7600:105	Introduction to Public Speaking	3
	or	
7600:106	Effective Oral Communication	3

Social Sciences: 6 credits

(One course from two different sets for a minimum of 6 credits)

Set 1 - Economics

2040:247	Survey of Basic Economics*	3
3250:100	Introduction to Economics	3
3250:200	Principles of Microeconomics	3
3250:244	Introduction to Economic Analysis	3

Set 2 - Geography

3350:100	Introduction to Geography	3

Set 3 - Government/Politics

2040:242	American Urban Society*	3
3700:100	Government and Politics in the United States	4
3700:150	World Politics and Governments	3

Set 4 - Psychology

2040:240	Human Relations*	3
3750:100	Introduction to Psychology	3

Set 5 - Sociology/Anthropology

3650:100	Introduction to Sociology	4
3870:150	Cultural Anthropology	4
5100:150	Democracy in Education	3

Set 6 - United States History

3400:250	U.S. History to 1877	4
3400:251	U.S. History since 1877	4

Set 7 - Science/Technology/Society

2040:241	Technology of Human Values	2
3600:125	Theory and Evidence	3

Humanities: 10 credits – 3 courses

All students are required to complete:

3400:210	Humanities in the Western Tradition I	4

Students may select one course from two different sets below for a minimum of six additional credits:

Set 1 - Fine Arts

7100:210	Visual Arts Awareness	3
7500:201	Exploring Music: Bach to Rock	3
7800:301	Introduction to Theatre and Film	3
7900:200	Viewing Dance	3

Set 2 - Philosophy/Classics

3200:220	Introduction to the Ancient World	3
3200:230	Sports and Society in Ancient Greece and Rome	3
3200:289	Mythology of Ancient Greece	3
3600:101	Introduction to Philosophy	3
3600:120	Introduction to Ethics	3
3600:170	Introduction to Logic	3

Set 3 - Literature

3300:250	Classic and Contemporary Literature	3
3300:251	Topics in World Literature	3
3300:252	Shakespeare and His World	3
3300:281	Fiction Appreciation	3
	Other literature in English translation:	
3200:361	Literature of Greece	3
3580:350	Literature of Spanish-America in Translation	3

Set 4

3400:211	Humanities in the Western Tradition II	4

* Will apply toward the General Education requirement only for students enrolled in the Community and Technical College.

Area Studies & Cultural Diversity: 4 credits – 2 courses

		Credits
2040:254	The Black American	2
3001:300	Introduction to Women's Studies	3
3005:300	Canadian Studies: An Interdisciplinary Approach	3
3350:375	Geography of Cultural Diversity	2
3400:385	World Civilization: China	2
3400:386	World Civilization: Japan	2
3400:387	World Civilization: SE Asia	2
3400:388	World Civilization: India	2
3400:389	World Civilization: Near East	2
3400:390	World Civilization: Africa	2
3400:391	World Civilization: Latin America	2
3870:251	Human Diversity	3

NOTE: A student majoring in medical technology or engineering is only required to take two credits from the Area Studies & Cultural Diversity area of General Education requirements.

Physical Education/Wellness: 1 credit

5540:120-183	Physical Education	.5 - 1
5550:150	Concepts of Health and Fitness	3
5550:194	Sports Officiating	2
5550:211	First Aid and Cardiopulmonary Resuscitation	2
5570:101	Personal Health	2
7400:133	Nutrition Fundamentals	3
7900:119/120	Modern Dance I/II: Introduction to Modern Dance I/II	2
7900:124/125	Ballet I/II: Introduction to Ballet I/II	2
7900:130/230	Jazz Dance I/II: Introduction to Jazz Dance I/II	2
7900:144	Tap Technique I: Introduction to Tap I	2

ACADEMIC ADVISEMENT CENTER

The professional advisers in the Academic Advisement Center seek to:

- Support and advise students of any age, gender, disability, race, and/or cultural differences on academic, career, and related matters.
- Create opportunities to assist students with various educational backgrounds in developing and achieving their educational goals and to effectively utilize the resources at The University of Akron and the surrounding community
- Act as an advocate for the student in interpreting issues, policies, and procedures for the University
- Communicate accurate and timely information to students by acting as a liaison between our department and other departments at the University
- Participate in professional growth by teaching, research, administrative, and leadership activities

The Academic Advisement Center (AAC) offers a comprehensive array of services designed to assist students in attaining their personal, academic, and career goals. The service is available to all new and returning students, including adult, postbaccalaureate, special high school, and transfer students. The following represents a partial list of some of the issues students may wish to discuss with an adviser:

- Course selection and educational planning
- Changing majors
- Dropping and adding classes
- Clarification of academic procedures and policies
- Academic progress
- Career planning
- Course workloads and study habits
- Prescribing learning strategies for conditionally admitted students
- Transferring to a degree-granting college
- Referrals to other departments/services on campus

Academic advising is a continuous process of clarification and evaluation that exists between adviser and advisee. The role of the academic adviser is to assist students in identifying alternatives and working through the decision-making process.

DEVELOPMENTAL PROGRAMS

The Department of Developmental Programs provides academic support:

- for all University students through individual tutoring and work in the Study Skills, Mathematics and Writing labs, study strategies courses and critical reasoning courses. Through these activities students develop and strengthen the skills necessary for successful performance at the college level.
- for students, including those who have been out of school for a number of years, who wish to strengthen their educational preparation through coursework in specific areas.

Developmental courses

Developmental courses are offered in writing, reading, college reading and study skills, mathematics, and chemistry. (See 1020:042 through 071.) Applied Study Strategies courses are offered in conjunction with specific general education courses such as Introduction to Psychology, Introduction to Sociology, U.S. History, Basic Math II, Government and Politics in the U.S., Principles of Biology, and others. Critical Reading and Reasoning is offered for students who feel they possess adequate study strategies but wish to focus on critical thinking skills. (See 1020:064 and 066.) Classes are small to provide maximum opportunity for individual help.

Learning Laboratories

The Study Skills, Mathematics and Writing labs are open to all students without charge.

- The Study Skills Center, 217 Carroll Hall and 110 Polsky Building, provides professional instruction in a variety of reading and study strategies, memory techniques, and test-taking methods as they apply to specific courses.
- The Mathematics Lab, 208 Carroll Hall and 110 Polsky Building, provides professional instruction for students who are having difficulty in any entry-level mathematics course.
- The Writing Lab, 212 Carroll Hall and 110 Polsky Building, offers professional instruction to students taking any course requiring writing.

Tutorial Program

Tutoring is available free of charge to help students develop academically.

- Peer tutoring is available for most freshman and sophomore courses, including Chemistry, Physics, Mathematics, Sociology, Psychology, Science, Business, and Modern Languages. Tutoring is conducted either on an individual basis or in small groups. Interested students should inquire at 215A Carroll Hall.
- Full-time undergraduate students are eligible to be peer tutors; a training program for tutors is provided every semester.

To inquire about any of these services, come to 210 Carroll Hall, call (330) 972-7087, or email deveprograms@uakron.edu.

UNIVERSITY ORIENTATION 101

The first semester at a university can be a challenging, and at times overwhelming, experience. University College offers a course which can help turn the challenges into successes. University Orientation 101 is a two-credit course which provides students with the opportunity to discover more about The University of Akron and themselves, and to learn strategies for a successful college experience. Taught by full-time faculty and administrators from across the campus, course topics include the development of time management, stress management, note-taking, test-taking and critical thinking skills; sharing strategies for effective academic planning; information about University services available to students; exposure to University cultural events; and extended orientation to library and computing resources. Students may register for University Orientation 101 during their New Student Orientation. For additional information, contact the University College Dean's Office at 972-7066.

Reserve Officer Training Corps (ROTC)

1500: AEROSPACE STUDIES

The Department of Aerospace Studies provides the student with an opportunity to pursue a commission in the United States Air Force while qualifying for graduation from the University of Akron. Air Force ROTC provides over 65% of the leaders for tomorrow's Air Force. These well-educated, versatile and professional officers will continue to keep the Air Force on the cutting edge of technology while providing for the national defense.

The program is designed to prepare the student to become an officer who is dedicated and responsible; critical and creative in thinking; able to communicate clearly; and skilled in effective management.

Today's Air Force is undoubtedly the best nationwide employer in the current American marketplace. Our program is open to both male and female students who will receive at least a baccalaureate degree upon graduation. Registration information may be obtained by contacting the Department of Aerospace Studies; 185 S. Forge St.; Schrank Hall South 9; Akron, Ohio 44325-6102; (330) 972-7653.

Programs

Four-Year Program

First-year students of The University of Akron may pursue the four-year program. Enrollment procedures for the first two years of Air Force ROTC, known as the General Military Course (GMC), are the same as for any other university course. The GMC consists of one hour of classroom work and two hours of Aerospace Studies Leadership Laboratory each week, providing 1.5 semester credits.

Portions of the GMC may be accredited for prior completion of two or more years of high school Junior ROTC, participation in Civil Air Patrol, military school training, or prior service in any branch of the United States Armed Forces.

Upon completion of the General Military Course, cadets may compete for entry into the last two years of the program, the Professional Officer Corps (POC). If selected, cadets will be required to attend field training. Upon successful completion of field training, cadets will also be required to maintain full-time student status each semester for the last two years of the program.

Two-Year Program

The two-year program opens the door directly into the POC for those students who are already in their second year of college and would still like to take advantage of the outstanding opportunities the Air Force has to offer. As with entry into the POC from the General Military Course, this method of entry into the POC is very competitive. Two-year program applicants must also meet all qualifications described in Requirements for Admission. If selected, cadets will be required to attend field training. Upon successful completion of field training, cadets will also be required to maintain full-time student status each semester for the last two years of the program.

Applications for the two-year program should be made as early in the academic year as possible so that all requisites may be completed in time for summer field training. The POC consists of three hours of classroom work and two hours of Aerospace Studies Leadership Laboratory each week, providing three semester credits.

Field Training

In the summer prior to entering the POC, all four-year program AFROTC cadets and student applicants for the two-year program must attend field training at an Air Force base where they will learn and make use of training and leadership techniques in close contact with other cadets from across the country. The four-year program cadet spends four weeks at an encampment, while field training for the two-year program applicant lasts five weeks. Uniforms, lodging, meals, and travel pay are provided without charge.

Flight Training

For cadets who meet the physical and testing requirements to become pilots in the Air Force, there are excellent opportunities to receive active duty flight training through Air Force ROTC. Categorization into all rated positions, including pilots and navigators, occurs during the first semester after the cadets' entry into the POC.

Voluntary Training Opportunities

In addition to mandatory training, there are numerous voluntary training opportunities for cadets to expand their Air Force knowledge and experience. The cadets and staff regularly organize base visits, aircraft orientation flights, and weapons qualification training. In addition, there are many nationally organized programs including Survival Escape Resistance and Evasion Training, Air Force Academy Free-Fall, Air Force Academy Glider Soaring, Army Airborne Training, Operation Air Force Shadow Program, and the British Exchange Pilot Training Program.

Requirements for Admission

General Qualifications

- Be a citizen of the United States or applicant for naturalization
- Be in sound physical condition
- Be of good moral character
- Meet age requirements as follows:

  AFROTC scholarship recipients must be at least 17 years of age and able to complete commissioning requirements prior to age 27.

  If not on scholarship status, but designated for pilot or navigator training, be able to complete all commissioning requirements prior to age 26.

  If not on scholarship status and not qualified for flying training, be able to complete all commissioning requirements prior to age 30.

Additional Qualifications for Professional Officer Course

- Be at least 17 years of age
- Minimum GPA of 2.0
- Interview with the Professor of Aerospace Studies
- Pass Air Force academic, fitness and medical exams
- For the four-year program cadet, complete the General Military Course or receive credit for Junior ROTC, Civil Air Patrol, military school training or prior service, and complete the for-week field training course
- For the two-year program applicant, complete the six-week field training course

Requirements for Commissioning

- Complete the POC and field training
- Earn at least a baccalaureate degree
- Agree to accept, if offered, a commission in the United States Air Force
- Agree to serve for a period of not less than four years on active duty after commissioning; or, if accepted for a flying training program, agree to serve for six years after navigator training or eight years after pilot training.

Scholarships

Air Force ROTC college scholarships are available to qualified applicants in both the two- and four-year programs. Every scholarship pays for tuition and most laboratory, textbook and incidental fees, and provides a $150 tax free stipend each month.

All scholarships are awarded in specific degree majors, with engineering and technical majors receiving the majority. There are some scholarships offered in non-technical majors; however, these scholarships are extremely competitive. The Air Force awards scholarships on the "Whole Person Concept." This means that while test scores and GPA are important factors, they are not the only factors considered. Air Force ROTC develops leaders for the Air Force; therefore, in awarding scholarships, leadership and extracurricular activities and an interview with an Air Force officer also play large roles in the scholarship selection process.

Beyond the scholarship program run by the Air Force, The University of Akron provides additional scholarship money each year to award to students enrolled in the Air Force ROTC program. These scholarships include both cash awards and a number of room scholarships. For information on applying for any scholarships through Air Force ROTC and the Aerospace Studies Department, contact the Department of Aerospace Studies.

Uniforms and Textbooks

All Air Force ROTC uniforms and textbooks are provided by the Air Force both for on-campus courses and field training.

1600: MILITARY SCIENCE

Army Reserve Officers' Training Corps (ROTC)

The University's Army Reserve Officers' Training Corps (ROTC) was established in 1919, making it one of the oldest in the country. The main goal of the program is to develop the future military leaders of our country. It provides the active Army, Army Reserve and Army National Guard with commissioned male and female officers. Army ROTC is your chance to develop leadership skills for success in your career, be it in the Army or as a civilian professional. Upon graduation with a four-year degree and ROTC, you will be leaving your alma mater as a second lieutenant in the United States Army.

A student enrolled in Army ROTC has an opportunity to study and participate in leadership and management experiences which are unique to the college curriculum. Leadership, self-discipline, responsibility and physical stamina are stressed as the student learns to plan, organize, motivate and lead others. Program goals are to develop decision-making capabilities through detailed examination of leadership factors; expand oral and written communication arts; provide some technical training in basic military skills; and develop an understanding of the relationship between the student's basic degree field and its application in the United States Army.

Programs

Four-Year Program

A full-time student enrolled in The University of Akron or Wayne College may enroll in the Army four-year program. Freshmen and sophomores enroll in the basic military course Military Science I and II (MS I, MS II) of the four-year program for two credits per semester. MS I and II classes are held two hours each week, in addition to a one and one-half-hour leadership laboratory, and cover studies in military history, leadership fundamentals, basic military skills, first aid, Leadership Assessment Program, and Army organization. Enrollment in MS I or MS II constitutes no obligation to military service or continuance into the advanced course and the credits received can be applied toward elective requirements.

A student who completes the basic course (MS I and MS II) is eligible for and may apply for enrollment into the advanced course, which may lead to a commission. Advanced course studies are held four hours per week, to include a mandatory one and one-half-hour leadership laboratory and physical training three times per week for three semester credits. The course of study includes: advanced leadership, application of tactics, ethics and professionalism, methods of instruction, resource management, and the responsibilities of an officer. The advanced course includes a five-week paid summer camp attended usually between the junior and senior year. A student in the advanced course is paid $150 per month, or approximately $1,500 per school year. Upon commissioning, the student will serve either with the Army Reserve, the National Guard, or on active duty.

Two-Year Program

A student can also enter the advanced course by attending a basic five-week military skills summer camp at Fort Knox, Kentucky, just prior to the MS III year or Junior year, or by having prior military service or training. This equals the basic course of the four-year program, and makes the student eligible to enter the advanced course as described under the four-year program.

Cadet Activities

The Department of Military Science offers numerous activities to enrich classroom instruction; provide a better understanding of the military and military life; and improve technical skills. These include the following:

- Adventure training: marksmanship, rappelling, backpacking, water survival training and white water rafting
- Social organizations
- Student organizations
- Battlefield tours
- Intercollegiate military skills competition (Ranger Challenge)

Advanced Military Training

Students enrolled in Military Science classes may volunteer for the following U.S. Army specialty schools as quotas become available. Special requirements and prerequisites must be met.

- Airborne Training
- Air Assault Training
- Mountain Warfare School
- Northern Warfare School

Requirements for Admission

Basic Course: None.

Advanced Course:

Completion of basic course, basic summer camp, or prior service.

- Pass the Army physical fitness test, and meet the Army's height and weight standards.
- Permission of the professor of military science.
- Be in good academic standing with the University.
- Meet Army medical standards

Requirements for Commissioning

- Completion of a baccalaureate or advanced degree to include the following types of college courses:
  - — Written Communications
  - — Human Behavior
  - — Computer Literacy
  - — Math Reasoning
  - — Military History
- Meet Army medical standards
- Completion of the advanced ROTC course.
- Completion of advanced summer camp normally between Junior and Senior year.
- Pass Army physical fitness test.
- Agree to fulfill a service obligation to serve as a commissioned officer on active duty, in the Army Reserve, or in the Army National Guard.

Military Science Scholarships

The Army ROTC has four-year scholarships available to high school seniors. Additionally, there are three- and two-year scholarships available on a competitive basis to students attending the University, whether or not they are enrolled in ROTC when applying for the scholarship. These scholarships provide tuition, fees, a flat rate for texts, and $150 per month allowance to the student for up to 10 months of the school year. Scholarship students may spend three to four years on active duty. University free room and board scholarships are available to four-year Army ROTC scholarship winners on a competitive first-come basis. A 3.0 GPA must be maintained.

Uniforms and Textbooks

Military textbooks for all ROTC courses and equipment for military training are provided free by the Department of Military Science. Uniforms are issued free to all students while enrolled in the program, but must be returned.

Financial Allowances

An advanced course cadet and scholarship students are paid a non-taxable allowance of $150 per month for up to 10 months of the school year. A student attending basic summer camp or advanced camp is paid for travel expenses, meals, housing, and a salary.

The Professor of Military Science may also award cash stipends up to $250 to students who excel in their academic studies. Stipends are based on academic merit, participation, and scholarship winners

The starting salary for a newly commissioned officer is approximately $31,000 per year which increases 15 percent per year on average for the next four years. Officers receive 30 days paid vacation per year.

SPECIAL RESERVE AND NATIONAL GUARD PROGRAMS

Simultaneous Membership Program (SMP)

Members of the Reserves or National Guard who are enrolled full-time in the University may enroll in advanced ROTC if they apply for SMP membership through their unit, are accepted by the professor of military science, and meet all other admission requirements for the advanced course (MS III and MS IV). Commissioning may occur upon completion of the advanced ROTC course, and the member will serve as an officer in the Reserves or National Guard.

An SMP member receives $150 tax-free per month while in ROTC, is promoted to an E-5 officer trainee in the reserve/guard unit and receives E-5 pay.

Army Nurse Program

The University of Akron has been selected as a primary participant in the U.S. Army Cadet Command Partnership in Nursing Education program (PNE).

- Freshmen and sophomores may enter the Army Nurse Program upon permission of the Professor of Military Science.
- University free room and board nurse scholarships are available to four-year Army ROTC nurse scholarship winners.

University Honors Program

Robert M. Holland, Ph.D., *Master*

INTRODUCTION

The University Honors Program supports high achieving and highly motivated students with challenging curriculum options, honors classes, academic scholarships, priority in registration, priority assignment to rooms in the honors residence, and enhanced computer, library, and study facilities. Honors Program students who complete the requirements of their academic majors and of the University Honors Program with cumulative grade-point averages of at least 3.40 are recognized at graduation as University Scholars.

ADMISSION

Every applicant for admission to the Honors Program is required to:

- Provide academic transcripts, test scores, or other documentation as needed.
- Submit an Honors Program application essay to the University Honors Council.
- Interview with a member of the University Honors Council.

To be admitted to the Honors Program, a student must be enrolled as a full-time student in a bachelor's degree program.

A student may be admitted to the Honors Program upon graduation from high school, upon transfer from another college or university, or following an assessment of his or her academic and career record.

To be considered for admission, an applicant entering from high school must provide evidence of at least two of the following:

- High school grade-point average of 3.5 or above.
- Class rank within the highest 10 percent.
- Admissions test scores (ACT 27 or SAT 1300) ranking in the highest 10 percent nationally.

Other applicants, whether transfer students, continuing undergraduates, or students who have been away from school for several years, are evaluated in terms of previous grades and other appropriate documented accomplishments.

HONORS CURRICULUM

Academic Majors

An Honors Program student completes the requirements for a major in one of the colleges awarding bachelor's degrees. The student enrolls in honors classes, as available, within the major. The Senior Honors Project counts as advanced course work within the major.

Honors Distribution Requirement

In place of The University of Akron General Education requirements (except for physical education), an Honors Program student completes an individually selected set of courses to meet the Honors Distribution Requirement. With the approval of the Honors Council, the student completes a balance of course work in the humanities, social sciences, and natural sciences, enrolling in honors sections of those classes when available. The Honors Distribution Requirement consists of the following four Group requirements totalling at least 38 credits:

Group I (The Humanities)
Six or more credits in courses offered by these departments:

3200: Classics	3400: History	3400: World Civilizations
3210: Greek	3400: Humanities in the Western Tradition	3600: Philosophy
3220: Latin		

Group II (Languages and the Arts)
Six credits of English Composition (Honors) and/or other English; and three or more credits from the other departments listed below:

3300: English	3530: German	7500: Music
3500: Arabic	3550: Italian	7600: Communication
3500: Chinese	3570: Russian	7700: Sign Language
3500: Japanese	3580: Spanish	7800: Theatre
3520: French	7100: Art	7900: Dance

Group III (The Social Sciences)
Six or more credits in courses offered by the departments below:

3250: Economics	3700: Political Science	3860: Sociology
3350: Geography and Planning	3750: Psychology	3870: Anthropology

Group IV (The Natural Sciences and Mathematics)
Three or more credits in mathematics, computer science, or statistics; and six or more credits of science courses:

3100: Biology	3450: Mathematics	3470: Statistics
3150: Chemistry	3460: Computer Science	3650: Physics
3370: Geology		

Honors Colloquia

All Honors Program students participate in the Honors Colloquium series: Humanities in the sophomore year, social sciences in the junior year, natural sciences in the senior year. These one-semester, two-credit courses are interdisciplinary seminars open only to Honors Program students.

1870:250	Honors Colloquium: Humanities	(during second year; during first year if majoring in Nursing or Dietetics)
1870:360	Honors Colloquium: Social Sciences	(during third year; during second year if majoring in Nursing or Dietetics)
1870:470	Honors Colloquium: Natural Sciences	(during fourth year; during third year if majoring in Nursing or Dietetics)

Senior Honors Project

The Honors Program student is required to complete a Senior Honors Project. This capstone of the honors student's academic and pre-professional studies is a chance to work intensively, with the guidance of a faculty sponsor, on a thesis, investigation, production, or problem of the student's choice. In designing, completing, and reporting on their Senior Honors Projects, these students have unique opportunities to apply their learning and test their abilities.

Other Features

Scholarships

Students admitted to the Honors Program are eligible for academic scholarships awarded by the University Honors Council, ranging from partial awards, covering part of each year's tuition and fees, to the Lisle M. Buckingham Scholarships, which provide tuition and general fees, room and board, for the full four years.

Advising

In each academic department an Honors Preceptor advises Honors Program students, from orientation until graduation. With this preceptor's guidance, the student plans the Honors Distribution Requirement and schedules what is needed to meet departmental, college, and Honors Program degree requirements.

Priority in Registration and Residence Assignment

Honors Program students are in the first group permitted to register for classes every semester. New Honors Program students also have priority in residence hall assignments within Gallucci Hall, which also contains the Honors Program offices, computer facilities, seminar rooms, individual and group studies, and study and meeting rooms for the use of commuting students.

Open Classrooms

An Honors Program student, with the instructor's permission, may attend undergraduate classes or lectures for which the student is not formally enrolled. Free access is available.

Access to Graduate Courses

With the permission of the preceptor and the instructor, an Honors Program student may enroll in graduate courses for either undergraduate or graduate credit.

The University Honors Council

Consisting of faculty representing the seven colleges granting the bachelor's degree, two Honors Program students, the Director of Admissions, the Director of Student Financial Aid, and the Master of the Honors Program, the Honors Council is responsible for all decisions on admissions to the Honors Program, the awarding of Honors Program scholarships, the approval of each student's Honors Distribution Requirement and Senior Honors Project, and the definition of policies and procedures appropriate to the mission of the University Honors Program.

Buchtel College of Arts and Sciences

Roger B. Creel, Ph.D., *Dean*
David C. Buchthal, Ph.D., *Associate Dean*
William A. Francis, Ph.D., *Associate Dean*

OBJECTIVES

The Buchtel College of Arts and Sciences serves the objectives of the University, which state that learning may be procured, preserved and enlarged. More particularly, the college seeks to foster:

- The commitment to humanity—that loyal devotion to the heritage contained in those disciplines growing out of the ancient liberal arts which teach limitations and potentialities. The college seeks to provide an appropriate environment for students to acquire an ability to evaluate, integrate and understand the conditions of human existence, to understand themselves in the natural world and in a particular civilization or society. No course or combination of courses can ensure such understanding, and there is no schooling that can guarantee wisdom. Therefore, the college requires the student to study ideas and experiences that are the subject matter of a variety of disciplines:
  - the nurture of civility—those actions whereby virtue, the advancement of society, and wise and humane government are encouraged;
  - the advancement of learning—that substantive knowledge discovered and cultivated by critical curiosity, tested by experimentation, propagated by instruction and capable of affecting lives so that all may in a free society exercise responsible liberty. The most enduring contribution which the college can make is to help individuals acquire the skill, motivation and breadth of knowledge to continue their intellectual development throughout their lives.

The college recommends each student for the appropriate bachelor's, master's or doctoral degrees in accordance with the level of accomplishment.

Buchtel College is one of 10 degree-granting colleges at the University. Its name truthfully implies that its traditions date back farther than those of the other undergraduate colleges, since the University itself is an outgrowth of Buchtel College, a liberal arts institution founded in 1870.

When Buchtel College became the Municipal University of Akron the original name was retained in the College of Liberal Arts which was subsequently renamed the Buchtel College of Arts and Sciences. Then, and now, the liberal arts goal has been to offer broad training to the college student so that the student can prosper in life and sustain a creative appreciation of the arts and sciences.

The college is composed of the following three administrative divisions.

Humanities Division

It is concerned with the intellectual traditions that have formed human nature and with their application to the present and future growth of the human being by affording insights into contemporary life and by promoting the development of the individual as a creative, critical and articulate person through the study of the classics, languages, literature and philosophy.

Natural Sciences Division

It is the most professionally oriented division in this college, with the highest number of graduates continuing their education in specific areas of advanced study. In undergraduate years, a natural sciences student has a course of study with a strong emphasis in biology, chemistry, computer science, geology, mathematics, physics or statistics.

Social Sciences Division

It stresses intelligent participation in community affairs through education in economics, geography, history, political science, psychology and sociology.

COLLEGE REQUIREMENTS

Admission

To be admitted to the college the student must have completed 30 credits of work and have the approval of the dean of the college.

Degrees Awarded

Humanities Division: Bachelor of Arts.

Natural Sciences Division: Bachelor of Arts, Bachelor of Science, Bachelor of Science in Cytotechnology, Bachelor of Science in Medical Technology.

Social Sciences Division: Bachelor of Arts, Bachelor of Science in Geography/Cartography, Bachelor of Arts in Geography/Travel and Tourism, Bachelor of Science in Labor Economics, Bachelor of Science in Political Science/Criminal Justice, Bachelor of Science in Political Science/Public Policy Management.

Baccalaureate Degrees

A student transferring into the college must have completed the equivalent of, or taken, 3300:111,2 English Composition I, II; three credits of mathematics or statistics earned in the Department of Mathematical Sciences; and the remainder of the lower-division General Education requirement.

Requirements for the bachelor's degree include:

- Completion of the General Education requirement.
- Three credits of mathematics or statistics earned in the Department of Mathematical Sciences.
- A minimum of 47 credits (exclusive of workshops and General Education courses) consisting of either:
  - — 300/400-level courses both in and outside the student's major;
  - — any courses outside major department as specified in and approved by the student's major adviser and the department or division head (permission should be obtained prior to enrollment), except workshops and General Education courses.
- Demonstration of ability to use English and another language:
  - — for English, this ability will be shown by the completion of the General Education sequence of 3300:111,2 English Composition I, II;
  - — for the other language, this ability will be shown by the completion of a second year of a foreign language on the University level or by demonstrating equivalent competence through a test approved by the Department of Modern Languages.
- Completion of requirements in a major field of study (see **Programs of Instruction**) and the recommendation of the student's major department.
- Attaining a minimum grade-point average of 2.00 in all work attempted in the major field at The University of Akron. (Chemistry 2.3, Political Science 2.2)
- Attaining a minimum grade-point average of 2.00 in all work in the major field, including transfer credits. (Chemistry 2.3, Political Science 2.2)
- Fulfilling the University requirements for a baccalaureate degree set forth in **Section 3** of this Bulletin.

Any student who wishes to receive a second baccalaureate degree must complete 32 credits of coursework in addition to the credits necessary for the first degree; 16 of the 32 credits must be in 300/400-level courses or other approved courses.

Major Field

To qualify for graduation, a student must concentrate or major in the work of either a department or a division of the College. Part or all of these credits may be taken in specifically required courses depending upon the major chosen.

The longer and more professionally oriented majors should be started during the first year when the student is still under the guidance of the Office of Academic Advising Services.

Ordinarily a student will select a department in which to major. The exact requirements for each major will be found on the following pages. Some departments offer more than one type of major. No minor is required; but in some cases, the major includes certain courses in other departments. As soon as the student is transferred to the college, the chair of the student's major department or designate becomes the academic adviser.

A student who desires a broader education than the departmental major offers may elect a divisional major and qualify in the general area of the humanities, natural sciences or social sciences. The exact requirements for these majors will be found on the following pages. As soon as the student contemplating a divisional major is transferred to the college, the chair of the student's major division becomes the academic adviser.

Preparation for High School Teaching

A student interested in a teaching career on the high school level may qualify for secondary school certification by the Ohio State Department of Education while enrolled in the Buchtel College of Arts and Sciences. Generally the arts and sciences major subject will also constitute a teaching major, although a second teaching field usually is required. The education and psychology courses required for the secondary school teaching certificate may be taken as electives toward the arts and sciences degrees. Additional elective credits will generally enable the student to meet the requirement of a second teaching field, without exceeding the credits necessary for graduation.

The number of credits in a teaching field required for certification can be determined by referring to **Section 4**, College of Education, "Teaching Fields," located in this Bulletin.

Minor Areas of Study

For an explanation of minor areas of study in the Buchtel College of Arts and Sciences, see **Section 5** of this Bulletin.

Interdisciplinary and Certificate Programs of Study

For an explanation of interdisciplinary and certificate programs of study, see **Section 6** of this Bulletin.

PROGRAMS OF INSTRUCTION

3100: Biology

Bachelor of Science

- The General Education requirement and the second year of a foreign language.
- Core requirements: All majors for a Bachelor of Science in Biology take the sequence of courses listed below, which will provide an understanding of the fundamentals of modern biology.

		Credits
3100:111,2	Principles of Biology I, II	8
3100:211,2	General Genetics	4
3100:217	General Ecology	3
3100:316	Evolutionary Biology	3
3100:311	Cell Biology	3
3150:151,3,2	Principles of Chemistry I, II, and Laboratory	7
3150:154	Qualitative Analysis	2
3150:201,2	Organic Chemistry and Biochemistry I and II	8
	or	
3150:263,4,5,6	Organic Chemistry	10
3450:145	College Algebra	4
3450:149	Precalculus Mathematics	4

- A distribution requirement of one course in anatomy-physiology and two courses in organismal biology which have been approved by the department must be completed.
- A minimum of 36 credits in biology is necessary to qualify for a Bachelor of Science degree. Additional courses in biology or other sciences are usually necessary to satisfy the admission requirements of graduate and professional schools for advanced work and professional studies.
- Recommended:

3460:125	Descriptive Computer Science	2
3470:261,2	Introductory Statistics I,II	4

- A student majoring in biology or medical technology should consult a member of the biology faculty during the first year.

Areas of Specialization (Optional)

If a student wishes to obtain a B.S. degree with a designated Area of Specialization within Biology, the student must take the required courses listed below for that specific area. Additional courses are listed as electives that may be taken to further strengthen a student's knowledge in a particular area. The area of specialization will appear on the student's transcript.

Most of these courses will be taken during the third or fourth years:

Botany

Required:		
3100:342	Flora and Taxonomy	3
3100:440	Mycology	4
	or	
3100:443	Phycology	4
3100:441	Plant Development	4
	or	
3100:445	Plant Morphology	4
3100:442	Plant Anatomy	3
Electives:		
3100:440	Food Plants	2
3100:447	Plant Physiology	3
3100:448	Economic Botany	2

Ecology

Required:		
3100:464	General and Comparative Physiology	4
At least *one* of the following:		
3100:421	Tropical Field Biology	4
3100:424	Freshwater Ecology	3
3100:426	Applied Aquatic Ecology	3
At least *one* of the following:		
3100:342	Flora and Taxonomy	3
3100:440	Mycology	4
3100:443	Phycology	4
3100:445	Plant Morphology	4
At least *one* of the following:		
3100:428	Biology of Behavior	2
3100:451	General Entomology	4
3100:453	Invertebrate Zoology	4
3100:456	Ornithology	4
3100:458	Vertebrate Zoology	4

Microbiology

		Credits
Required:		
3100:331	Microbiology	4
3100:433	Pathogenic Bacteriology	4
	or	
3100:435	Virology	4
3100:437	Immunology	4
Electives:		
3100:440	Mycology	4
	or	
3100:443	Phycology	4
3100:454	Parasitology	4
3100:481	Advanced Genetics	3
3150:401,2	Biochemistry	6

Animal Physiology

Required:		
3100:461,2	Human Physiology	8
3100:464	General and Comparative Physiology	4
3100:465	Advanced Cardiovascular Physiology	3
	or	
3100:469	Respiratory Physiology	3
	or	
3100:468	The Physiology of Reproduction	3
Electives:		
3100:365	Histology I	3
3100:401,2	Biochemistry	6
3100:466	Vertebrate Embryology	4
3100:467	Comparative Vertebrate Morphology	4
3100:484	Pharmacology	3

Zoology

Required:		
3100:428	Biology of Behavior	2
3100:453	Invertebrate Zoology	4
	or	
3100:458	Vertebrate Zoology	4
3100:464	General and Comparative Physiology	4
3100:466	Vertebrate Embryology	4
	or	
3100:467	Comparative Vertebrate Morphology	4
Electives:		
3100:365	Histology	3
3100:421	Tropical Field Biology	4
3100:451	General Entomology	4
3100:454	Parasitology	4
3100:456	Ornithology	4

Preparation for High School Biology Teaching

For certification, additional courses in the College of Education are required. See the College of Education and the Buchtel College of Arts and Sciences "Preparation for High School Teaching," **Section 4** of this Bulletin.

- The following courses should be taken:

3100:130	Principles of Microbiology	3
	or	
3100:331	Microbiology	4
3100:265	Introductory Human Physiology	4
3100:342	Flora and Taxonomy	3
	or	
3100:445	Plant Morphology	4
3100:453	Invertebrate Zoology	4
	or	
3100:458	Vertebrate Zoology	4
Additional courses that may be taken:		
3100:426	Applied Aquatic Ecology	3
3100:428	Biology of Behavior	2
3100:440	Mycology	4
	or	
3100:443	Phycology	4
3100:464	General and Comparative Physiology	4

Preparation for Professional School

(Pre-medical, pre-dental, pre-veterinary and pre-pharmacy students)

- The following courses should be taken:

		Credits
3100:461,2	Human Physiology	8
	or	
3100:466	Vertebrate Embryology	4
	and	
3100:467	Comparative Vertebrate Morphology	4
3470:261	Introductory Statistics I	2
3650:261,2	Physics for Life Sciences I and II	8
3450:221	Analytical Geometry-Calculus I	4
	or	
3450:215	Concepts of Calculus I	4
Additional courses that may be taken:		
3100:365	Histology I	3
3100:465	Advanced Cardiovascular Physiology	3
3100:468	The Physiology of Reproduction	3
3100:469	Respiratory Physiology	3
3150:401,2	Biochemistry	6

Bachelor of Science in Medical Technology

- A foreign language is not required.
- The following credits are required:

3100:111,2	Principles of Biology I, II	8
3100:208,9	Human Anatomy and Physiology	8
3100:211	General Genetics	3
3100:331	Microbiology	4
3100:433	Pathogenic Bacteriology	4
3100:437	Immunology	4
3100:454	Parasitology	4
3100:495	ST:Medical Technology	1
3150:151,3,2	Principles of Chemistry I, II and Laboratory	7
3150:154	Qualitative Analysis	2
3150:263,4	Organic Chemistry I, II	6
3150:265	Organic Chemistry Laboratory	2
3450:145	College Algebra	4
3450:149	Precalculus Mathematics	4
3460:125	Descriptive Computer Science	2

- The first three years of instruction are given in the University. The senior year consists of a minimum of 32 credits of course work in the 3120 series. These courses will be available only to the student selected for the clinical experience portion of the B.S.M.T. program in a NAACLS-approved hospital school; normal tuition will be charged. The University is affiliated with the following hospital schools: Cleveland Clinic Foundation, Cooperative Medical Technology Program of Akron, Ohio Valley Hospital (Steubenville), University Hospitals of Cleveland, Southwest General Health Center (Middleburg Heights) and Riverside Mercy Hospital (Toledo) . The student must apply to a hospital school for separate admission. The University cannot guarantee placement. A student may train at other approved schools after obtaining special permission from the head of the Department of Biology.
- The University grants the B.S. in Medical Technology after receipt of evidence of satisfactory completion of the hospital instructional program.

Bachelor of Science in Cytotechnology

- A foreign language is not required.
- The following credits are required:

3100:111,2	Principles of Biology I, II	8
3100:208,9	Human Anatomy and Physiology	8
3100:211	General Genetics	3
3100:311	Cell Biology	3
3100:331	Microbiology	4
3100:365,6	Histology I, II	6
3100:433	Pathogenic Bacteriology	2
3100:437	Immunology	4
3150:151,3,2	Principles of Chemistry I, II and Laboratory	7
3150:154	Qualitative Analysis	2
3150:263	Organic Chemistry I	3
3150:265	Organic Chemistry Laboratory	2
3450:145	College Algebra	4
3450:149	Precalculus Mathematics	4

- The first three years of instruction are given at the University. The senior year consists of a maximum of 32 credits in the 3130 series. These courses are available only to the student selected for the clinical experience portion of the B.S.C.T. program in a NAACLS-approved hospital school. Normal tuition will be charged. The student must apply for a separate admission to an approved school. The University will assist in the process but cannot guarantee admission.
- The University will grant the B.S. in Cytotechnology after receipt of satisfactory completion of the hospital instructional program.

Bachelor of Arts - Biology

- The General Education requirement and the second year of a foreign language.
- At least 17 credits in the humanities or social sciences, including at least two of the following:

		Credits
3400:486	Western Science to 1800	3
3400:487	Western Science since 1800	3
3400:488	Western Technology	3
3600:464	Philosophy of Science	3

- At least 24 credits in the biological sciences which must include:

3100:111,2	Principles of Biology I, II	8
3100:211	General Genetics	3
3100:217	General Ecology	3
3100:311	Cell Biology	3
	or	
3100:331	Microbiology	4
	or	
3100:130	Principles of Microbiology (with permission)	3
3100:316	Evolutionary Biology	3

- Required chemistry courses: 3150:151, 152, and 153 (Principles of Chemistry and Laboratory), as well as 3150:154 (Qualitative Analysis).
- Required math course: 3450:149 (Precalculus).

3150: Chemistry

Statement of Policies Admission

For students enrolled at The University of Akron and for students wishing to transfer directly to Buchtel College of Arts and Sciences from other institutions, the following criteria must be satisfied for admission to the Department of Chemistry:

- The student must be admissible to Buchtel College of Arts and Sciences.
- Principles of Chemistry I and II, Qualitative Analysis, Organic Chemistry Lecture I, Analytical Geometry and Calculus I and II, and Elementary Classical Physics I must be completed, and the grades must have been recorded. For the Bachelor of Arts in Chemistry program, Elementary Classical Physics I may be replaced by Physics for Life Sciences I.
- A minimum grade-point average of 2.30 must be met in all university work, including transfer credits.
- A minimum grade-point average of 2.30 must be met in all chemistry coursework, including transfer credits.
- A minimum grade-point average of 2.30 must be met in all chemistry coursework on The University of Akron campus.
- A minimum grade-point average of 2.00 must be met in all work in mathematics, including transfer credits.
- A minimum grade-point average of 2.00 must be met in all work in physics, including transfer credits.

Only credits earned at an accredited institution of postsecondary education, as recognized by The University of Akron, will be considered for transfer credit, and only those grades will be considered in determining the above grade-point averages. Note, however, that transfer grades are never used in calculating a student's official grade-point average.

Freshman students who are admitted unconditionally to the chemistry program are exempted from the above requirements.

Retention

Students in the chemistry programs must maintain a minimum grade-point average of 2.30 overall and a minimum of 2.30 grade-point average in chemistry courses in order to remain in good standing in the program. A student who fails to maintain the 2.30 cumulative average, including transfer credits, will be placed on academic probation. Failure to raise the average to 2.30 in a period of one semester or one 10-week summer session will result in dismissal from the program. The student may not apply for readmission for at least one semester.

A student receiving a grade below C- in a required chemistry course will be required to repeat the course.

Graduation

The student must earn a 2.30 cumulative grade-point average in chemistry coursework on The University of Akron campus and a 2.30 cumulative grade-point average for all chemistry coursework including transfer credits.

Grades below C- obtained in any course at other institutions will not apply toward a chemistry degree at The University of Akron. Grades below C- obtained in chemistry courses will not apply toward the chemistry degree.

The student must earn a 2.30 cumulative grade-point average in all degree coursework.

Bachelor of Science

- The General Education requirement and the second year of a foreign language.
- Core Requirement:

		Credits
3150:151	Principles of Chemistry I	3
3150:152	Principles of Chemistry Laboratory	1
3150:153	Principles of Chemistry II	3
3150:154	Qualitative Analysis	2
3150:263	Organic Chemistry Lecture I	3
3150:264	Organic Chemistry Lecture II	3
3150:265	Organic Chemistry Laboratory I	2
3150:266	Organic Chemistry Laboratory II	2
3150:313	Physical Chemistry Lecture I	3
3150:314	Physical Chemistry Lecture II	3
3150:380	Advanced Chemistry Laboratory I	2
3150:381	Advanced Chemistry Laboratory II	2
3150:423	Analytical Chemistry I	3
3150:424	Analytical Chemistry II	3
3150:472	Advanced Inorganic Chemistry	3
3150:480	Advanced Chemistry Laboratory III	2
3150:481	Advanced Chemistry Laboratory IV	2

- At least five credits from the following:

3150:401	Biochemistry Lecture I	3
3150:402	Biochemistry Lecture II	3
3150:463	Advanced Organic Chemistry	3
3150:497	Honors Project in Chemistry (may be repeated for a total of 8 credits)	1-2
3150:498	Special Topics: Chemistry (may be repeated for a total of 8 credits)	1-2
3150:499	Research Problems (may be repeated for a total of 8 credits)	1-2
3650:481	Methods of Mathematical Physics I	3
9871:401	Introduction to Elastomers	3
9871:402	Introduction to Plastics	3
9871:407	Polymer Science	4
9871:411	Molecular Structure and Physical Properties of Polymers I	3
9871:412	Molecular Structure and Physical Properties of Polymers II	2
9871:413	Molecular Structure and Physical Properties of Polymers III	2

Subject to departmental and Graduate School approval, senior-level students may take graduate-level chemistry courses for undergraduate credit. Such courses are accepted in lieu of 400-level courses.

- Mathematics:

3450:221	Analytic Geometry-Calculus I	4
3450:222	Analytic Geometry-Calculus II	4
3450:223	Analytic Geometry-Calculus III	4
3450:235	Differential Equations	3

- Physics:

3650:291,2	Elementary Classical Physics I, II	8

- Recommended:

3460:201	Introduction to FORTRAN Programming	3

- Graduates of the Bachelor of Science program receive a degree certified by the American Chemical Society.

Bachelor of Arts

- The General Education requirement and the second year of a foreign language.
- Chemistry:

		Credits
3150:151	Principles of Chemistry I	3
3150:152	Principles of Chemistry Laboratory	1
3150:153	Principles of Chemistry II	3
3150:154	Qualitative Analysis	2
3150:263	Organic Chemistry Lecture I	3
3150:264	Organic Chemistry Lecture II	3
3150:265	Organic Chemistry Laboratory I	2
3150:266	Organic Chemistry Laboratory II	2
3150:313	Physical Chemistry Lecture I	3
3150:314	Physical Chemistry Lecture II	3
3150:380	Advanced Chemistry Laboratory I	2
3150:423	Analytical Chemistry I	3
3150:424	Analytical Chemistry II	3

- At least five credits from the following:

3150:381	Advanced Chemistry Laboratory II	2
3150:401	Biochemistry Lecture I	3
3150:402	Biochemistry Lecture II	3
3150:463	Advanced Organic Chemistry	3
3150:472	Advanced Inorganic Chemistry	3
3150:480	Advanced Chemistry Laboratory III	2
3150:481	Advanced Chemistry Laboratory IV	2
3150:497	Honors Project in Chemistry (may be repeated for a total of 8 credits)	1-2
3150:498	Special Topics: Chemistry (may be repeated for a total of 8 credits)	1-2
3150:499	Research Problems (may be repeated for a total of 8 credits)	1-2
9871:401	Introduction to Elastomers	3
9871:402	Introduction to Plastics	3
9871:407	Polymer Science	4
9871:411	Molecular Structure and Physical Properties of Polymers I	3
9871:412	Molecular Structure and Physical Properties of Polymers II	2
9871:413	Molecular Structure and Physical Properties of Polymers III	2

- Physics:

3650:291,2	Elementary Classical Physics I and II	8
	or	
3650:261,2	Physics for the Life Sciences I and II	8

- Mathematics:

3450:149	Precalculus Mathematics	4
3450:221,2	Analytic Geometry-Calculus I and II (or equivalent)	8

- Recommended:

3460:201	Introduction to FORTRAN Programming	3

Cooperative Education Program in Chemistry

Qualifications

Arrangements for entry into the program are on an individual basis and are initiated by the student during the second year of undergraduate study. Full-time B.S. chemistry majors at The University of Akron must meet the following requirements:

- Satisfactory completion of 60 credits with a quality point average of at least 2.3 in chemistry courses and on schedule in their curriculum.
- Acceptance by a cooperative education coordinator or director following a series of interviews.

Part-time students must have completed 60 credits with a 2.3 average and be on schedule in their curriculum. They are expected to become full-time students while not on their co-op job.

Transfer students must have preparation equivalent to the minimum requirements for The University of Akron students and must have completed at least one semester of full-time study at The University of Akron.

Placement in an industrial or other position is not guaranteed, and foreign students should recognize that many companies require U.S. citizenship or possession of a permanent visa. In any case, final acceptance of a student for any position is the decision of the employer.

Schedule

The work-study schedule for students in the co-op program is as follows:

Year	*Fall*	*Spring*	*Summer*
1	School	School	Vacation/School
2	School	School	Vacation/School/Work
3	School	Work	School
4	Work	School	Work
5	School	School	—

Admission to Program

Interested students should attend a Cooperative Education orientation session. Students will be expected to remain with their employer for all co-op work periods in order to provide a progression of experience and responsibility. Employment must have approval of the department and the Cooperative Education director, but the University does not guarantee employment.

Registration

Students register for Cooperative Work Periods in the same manner that a student registers for any other University courses. The course is:

3000:301	Cooperative Education

A registration fee for each work period is charged to offset the expenses of administering the Co-op Program. Upon completion of a work period, a statement will appear on the student's official transcript listing the course number and title. In place of a grade, "credit" or "no credit" will be given, depending upon the student's satisfactory or unsatisfactory completion of the following:

- Work performance as evaluated by the employer.
- Submission of a written Work Report and its approval by the Cooperative Education staff.
- Submission of a Cooperative Work Period Summary Form.

3200: Classics

3200: Classics; 3210: Greek; 3220: Latin

Bachelor of Arts

Classical Languages

- The General Education requirement.
- At least 39 departmental credits including the following:

		Credits
3200:289	Mythology of Ancient Greece	3
3200:313	Archaeology of Greece	3
3200:314	Archaeology of Rome	3
3200:361	Literature of Greece	3
3200:362	Literature of Rome	3

- Two of the following courses:

3400:307	The Ancient Near East	3
3400:308	Greece	3
3400:313	The Eastern Roman Empire (324-1453)	3
3400:317	Roman Republic	3
3400:318	Roman Empire	3
	Electives in Classics	6

- Language credits (a minimum of four semesters of either Greek or Latin; 12 credits) must be above the 200 level in order to be included in the 39 credits. In the case of a Latin major, three credits must be taken during the senior year.
- The student wishing to be certified for public school teaching with Latin as the principal teaching field must complete the state requirements in that language.

In addition, the required credits in a second academic teaching field must be completed. See **Section 4**, College of Education, "Teaching Fields," located in this Bulletin.

Classical Civilization

- The General Education requirement and the second year of a foreign language.
- At least 36 departmental credits including the following:

		Credits
3200:289	Mythology of Ancient Greece	3
3200:313	Archaeology of Greece	3
3200:314	Archaeology of Rome	3
3200:361	Literature of Greece	3
3200:362	Literature of Rome	3
	One of the following courses:	
3400:307	The Ancient Near East	3
3400:313	The Eastern Roman Empire	3

- Choose nine credits from the following:

3400:308	Greece	3
3400:317	Roman Republic	3
3400:318	Roman Empire	3
3200:230	Sports and Society in Greece and Rome	3
3200:401	Egyptology I	3
3200:402	Egyptology II	3
	Electives in Classics, Ancient Philosophy or Cultural Anthropology	9

It is strongly recommended that a major in classical civilization fulfill the foreign language requirement by taking two years of Greek or Latin.

3250: Economics

Effective Fall 1994, the Department of Economics has changed the course number for Principles of Microeconomics from 3250:202 to 3250:200. Students will be required to register for 200 before taking 3250:201 Principles of Macroeconomics. Students with prior credit for 3250:202 will be allowed to take 3250:201.

Bachelor of Arts

- The General Education requirement and the second year of a foreign language.
- At least 30 departmental credits including:

3250:200	Principles of Microeconomics	3
3250:201	Principles of Macroeconomics	3
3250:400	Intermediate Macroeconomics	3
3250:410	Intermediate Microeconomics	3

- Departmental Electives 18
- Mathematics:

3450:215	Concepts of Calculus I	4

- Statistics (one of the following):

3470:460	Statistical Methods	4
	or	
3470:461	Applied Statistics	4

- Electives — 34 credits.

Bachelor of Science in Labor Economics

- The General Education requirement.
- At least 30 departmental credits including:

3250:200	Principles of Microeconomics	3
3250:201	Principles of Macroeconomics	3
3250:330	Labor Problems	3
3250:410	Intermediate Microeconomics	3
Two of the following:		
3250:333	Labor Economics	3
3250:430	Labor Market Policy	3
3250:431	Labor and the Government	3
3250:432	Collective Bargaining	3

- Departmental Electives 12
- Mathematics:

3450:215	Concepts of Calculus I	4

- Statistics (one of the following):

3470:460	Statistical Methods	4
	or	
3470:461	Applied Statistics	4

- At least eight credits in 300/400-level courses geography, history, political science, psychology or sociology.
- Electives — 40 credits.

Note: 3250:100 Introduction to Economics cannot be used to satisfy the requirements for a major or minor in economics.

Note: Students may not receive credit for 3250:244 Introduction to Economic Analysis and 3250:200,201. Those students who have completed 3250:244 are not required to take 3250:200, 201 before beginning upper division work.

Cooperative Education Program in Economics

Definition

Cooperative Education (Co-op) is an experiential program in which students work in their academic field while still in college. Students are able to learn how to apply theoretical knowledge to practical applications while being a paid employee of a business or governmental agency. While not guaranteed, many students may find their permanent post-school job as a result of their co-op experience.

Admission

Cooperative Education is an optional program available to all Economics students at The University of Akron. Students seeking entry into the program should attend one of the co-op orientations offered early each semester while in the second year of undergraduate study. To be eligible for placement, students must satisfactorily complete the following requirements:

- Attain admission status to the Buchtel College of Arts and Sciences in Economics.
- Undergraduate students must complete at least 45 credit hours with at least a 2.0 overall grade-point average. Graduate students are eligible for Cooperative Education and must complete 12 graduate credit hours with at least a 3.0 overall grade-point average.
- Agree to abide by the rules and regulations of cooperative education.
- Complete the orientation, all co-op registration forms and meet with a member of the Cooperative Education staff to review the availability of prospective employers. Co-op employment must be approved and coordinated by the co-op staff. The University does not guarantee employment for the student.

Schedule

Participating students may select between alternating and parallel options within the cooperative education program. In an alternating plan, students rotate between semesters of full-time classes and semesters of full-time work. In a parallel plan, students work part-time and attend classes part-time. Careful coordination with both the co-op staff and the undergraduate student advisor in Economics is imperative.

Registration

While no academic credits are assigned, each student must register for 3000:301 Cooperative Education in the same manner that a student registers for any other University course. See a co-op coordinator before enrolling in this course.

A cooperative program fee is charged for each work period. A statement will appear on each student's official transcript listing the course number and title. A grade of "Credit" or "No Credit" will be given, depending upon the student's satisfactory completion or unsatisfactory completion of the following:

- Work performance as evaluated by the employer.
- Written work report as approved by the cooperative education staff.
- Follow-up appointment with the cooperative education staff.

Students working on an approved cooperative education field assignment and complying with the rules and regulations of the cooperative education program are recognized as full-time students at The University of Akron. Students successfully completing three semesters of co-op experience are awarded a certificate and recognized as co-op graduates of The University of Akron.

3300: English

Bachelor of Arts

- The General Education requirement and the second year of a foreign language.
- At least 36 credits in the department including the following course and distribution requirements:

Required courses:		Credits
3300:300	Critical Reading and Writing	3
3300:301	English Literature I	3
3300:315	Shakespeare: The Early Plays	3
	or	
3300:316	Shakespeare: The Mature Plays	3
3300:341	American Literature I	3
3300:371	Introduction to Linguistics	3

Distribution of requirements:
One course in world or multicultural literature outside the canon of British and American writers. A minimum of four 400-level courses.

- Electives — 39 credits.

3350: Geography and Planning

Bachelor of Arts

- The General Education requirement and the second year of a foreign language.
- At least 26 departmental credits including the following:

3350:305	Maps and Map Reading	3
3350:310	Physical and Environmental Geography	3
3350:320	Economic Geography	3
3350:330	Rural and Urban Settlement	3
3350:340	Cartography	3
3350:481	Research Methods in Geography and Planning	3
3350:483	Spatial Analysis	3
3350:496	Field Research Methods	3

- At least one course from the following:

3350:350	Geography of the United States and Canada	3
3350:353	Latin America	3
3350:356	Europe	3
3350:358	Russia and Associated States	3
3350:360	Asia	3
3350:363	Africa South of the Sahara	3

- Electives — 46 credits.

Bachelor of Science in Geography/Cartography*

- Completion in the Community and Technical College of an Applied Science degree in the surveying option of the construction technology program or the computer drafting technology program.
- Completion of General Education requirements.
- Completion of at least 47 credits of 300/400-level courses in addition to the General Studies requirement.
- At least nine credits of course work which will introduce students to a foreign culture. Such courses shall be selected by the student with the approval of the adviser in the Department of Geography and Planning. Such courses may be chosen from those foreign culture courses offered in any of the following areas: anthropology, classics, non-U.S. history and modern languages. Foreign language is strongly recommended.
- At least 30 credits in geography including the following:**

3350:442	Thematic Cartography	3
3350:444	Applications in Cartography and Geographic Information Systems	3
3350:447	Introduction to Remote Sensing	3
3350:448	Advanced Cartography	3
3350:449	Advanced Remote Sensing	3
3350:481	Research Methods in Geography and Planning	3
3350:483	Spatial Analysis	3
3350:496	Field Research Methods	3

* Students planning to pursue the Bachelor of Science in Geography/Cartography should select courses 2040:242 American Urban Society and 247 Survey of Basic Economics as general electives in their Community and Technical College program.

** See department head for possible substitutions.

Bachelor of Arts in Geography/Travel and Tourism

- Completion of all requirements for the Associate Degree in the Airline/Travel Industry Option established by the Community and Technical College.
- Completion of General Education requirements and the second year of a foreign language.
- Completion of 47 credits of 300/400 level courses.
- Completion of at least 30 credits in geography, including the following:

		Credits
3350:100	Introduction to Geography	3
3350:300	Geography of Travel and Tourism	3
3350:305	Maps and Map Reading	3
3350:314	Climatology	3
3350:335	Recreation Resource Planning	3
3350:350	Geography of the U.S. and Canada	3
And at least two of the following:		
3350:353	Latin America	3
3350:356	Europe	3
3350:358	Russia and Associated States	3
3350:360	Asia	3
3350:363	Africa South of the Sahara	3

3370: Geology

Bachelor of Science

Engineering Geology

- The General Education requirement and the second year of a foreign language.
- At least 39 departmental credits including the following:

3370:101	Introductory Physical Geology	4
3370:102	Introductory Historical Geology	4
3370:230	Crystallography and Nonsilicate Mineralogy	3
3370:231	Silicate Mineralogy and Petrology	3
3370:301	Engineering Geology	3
3370:324	Sedimentation and Stratigraphy	4
3370:350	Structural Geology	4
3370:446	Exploration Geophysics †	3
3370:493	Geology Field Camp I	3
3370:494	Geology Field Camp II	3
	Geology Electives from List	5

- Non-Geology Required Courses:

3150:151,2,3	Principles of Chemistry I, II	7
3450:221, 2, 3	Analytical Geometry and Calculus I, II, and III	12
3450:235	Differential Equations	3
3650:291,2	Elementary Classical Physics I and II	8
4300:201	Statics	3
4300:202	Introduction to Mechanics of Solids	3
4300:203	Dynamics	3
4300:313	Soil Mechanics	3
4300:314	Geotechnical Engineering	3
4600:310	Fluid Mechanics	3
	Non-Geology Electives	4

- Geology Elective List

3370:310	Geomorphology	3
3370:421	Coastal Geology	3
3370:432	Optical Mineralogy-Introductory Petrography	3
3370:435	Petroleum Geology	3
3370:436	Coal Geology	3
3370:437	Economic Geology	3
3370:449	Borehole Geophysics	3
3370:470	Geochemistry	3
3370:474	Groundwater Hydrology	3

- Non-Geology Elective List

3460:201-7	Introduction to Programming Languages (or equivalent)	2
4300:341	Hydraulic Engineering	3
4300:414	Design of Earth Structure	3
4300:445	Hydrology	3
4600:305	Thermal Science	2

† May also be satisfied by: 4300:418 Soil and Rock Exploration.

Geology

- The General Education requirement and the second year of a foreign language.
- At least 47 departmental credits including:

		Credits
3370:101	Introductory Physical Geology	4
3370:102	Introductory Historical Geology	4
3370:230	Crystallography and Non-Silicate Mineralogy	3
3370:231	Silicate Mineralogy and Petrology	3
3370:324	Sedimentation and Stratigraphy	4
3370:350	Structural Geology	4
3370:360	Introductory Invertebrate Paleontology	4
3370:432	Optical Mineralogy-Introduction Petrography	3
3370:493	Geology Field Camp I	3
3370:494	Geology Field Camp II	3
	Elective Geology courses (300/400-level)	12

- Non-geology courses required for majors:

3150:151,2,3	Principles of Chemistry I, II	7
3450:221,2	Analytic Geometry-Calculus I and II	8
3650:291,2	Elementary Classical Physics I and II ††	8

- Electives:

Elective credits in Field Studies (3370:495) and Research Problems (3370:499) are strongly recommended, however only 4 credits of each may be used to satisfy the geology elective requirement. Workshop (3370:490) , may not be used to satisfy the geology elective requirement. Additional work in a supporting sciences, math, or engineering is encouraged. A student majoring in geology should consult regularly with the Director of Undergraduate Studies in the Geology Department.

Geophysics

- The General Education requirement and the second year of a foreign language.
- At least 30 departmental credits including the following:

3370:101	Introductory Physical Geology	4
3370:102	Introductory Historical Geology	4
3370:350	Structural Geology	4
3370:441	Fundamentals of Geophysics	3
3370:446	Exploration Geophysics	3
3370:493	Geology Field Camp I	3
3370:494	Geology Field Camp II	3
	Geology Electives (as approved by geophysics adviser)	6

- Science Electives 9 credits. At least three science courses approved by the geophysics adviser. Recommended courses are:

3460:201	Introduction to FORTRAN Programming or equivalent	3
3650:320	Waves	3
3650:322	Intermediate Laboratory I	2
3650:323	Intermediate Laboratory II	2
3650:350	Computational Physics	3
3650:431	Mechanics I	3
3650:436	Electomagnetism I	3
3650:468	Digital Data Acquisition	3.

- Non-geology required courses:

3150:151,2,3	Principles of Chemistry I, II	7
3450:221,2,3	Analytic Geometry-Calculus I, II and III	12
3450:235	Differential Equations	3
3650:291,2	Elementary Classical Physics I and II	8

Bachelor of Arts

- The General Education requirement and the second year of a foreign language.
- At least 44 departmental credits including the following:

3370:101	Introductory Physical Geology	4
3370:102	Introductory Historical Geology	4
3370:231	Silicate Mineralogy and Petrology	3
3370:350	Structural Geology	4
3370:360	Introductory Invertebrate Paleontology	4
3370:493	Geology Field Camp I	3
3370:494	Geology Field Camp II	3
	Elective geology courses (minimum eight credits at the 300/400 level)	19

- Non-geology courses required for majors:

3150:151,2	Principles of Chemistry I	4
3450:149	Precalculus	4

- At least seven credits from the following:

3100:111,2	Principles of Biology (or equivalent)	4
3150:153	Principles of Chemistry II (or equivalent)	3
3650:291,2	Elementary Classical Physics I and II	4

†† Undergraduate geology adviser may approve substitution of 3650:261,2.

3400: History

Bachelor of Arts

- The General Education requirement and the second year of a foreign language (French, German, Spanish or Russian suggested).
- A minimum of 32 credits in history, but up to six credits in cognate fields may be substituted with the adviser's approval. These credits must include some distribution of United States and European or non-United States history; and 3400:310, Historical Methods (taken in the sophomore or junior year). The minimum shall be 16 credits in 300/400-level history courses.
- Courses in World Civilizations and Humanities in the Western Tradition may not be used to meet major requirements in History.

3450: Mathematics

Bachelor of Science
Bachelor of Arts

Mathematics

- The General Education requirement and the second year of a foreign language.
- At least 40 departmental credits including:

		Credits
3450:221,2,3	Analytic Geometry-Calculus I, II, III	12
3450:307	Fundamentals of Advanced Mathematics	3
3450:312	Linear Algebra	3
3450:411,2	Abstract Algebra I, II	6
3450:421,2	Advanced Calculus I, II	6
3450:445	Topology	7
	Math electives	7

- Complete nine credits of course work outside the major and beyond the General Studies in a suitable area of concentration as approved by the department.
- For the Bachelor of Arts degree; complete 18 credits of humanities or social sciences beyond the General Education requirement. The 18 credits are to be from more than one department.
- Electives — 17 credits.

Applied Mathematics

- The General Education requirement and the second year of a foreign language.
- At least 40 departmental credits including:*

3450:221,2,3	Analytic Geometry-Calculus I, II, III	2
3450:235	Differential Equations	3
	or	
3450:335	Introduction to Ordinary Differential Equations	3
3450:307	Fundamentals of Advanced Mathematics	3
3450:312	Linear Algebra	3
3450:421,2	Advanced Calculus I, II	6
3450:427	Introduction to Numerical Analysis	3
3450:436	Mathematical Models	3
3470:461	Applied Statistics I	4
	Math electives	3

- Complete a six-credit sequence at the 300/400 level in some approved area, such as chemistry, physics, engineering, economics, etc.
- Complete nine credits of course work outside the major and beyond the General Studies in a suitable area of concentration as approved by the department. These hours may include the six-hour sequence in the applied area described.
- For the Bachelor of Arts degree: complete 18 credits in the humanities and social sciences beyond the General Studies. These 18 credits are to be from more than one department.
- Electives — 17 credits.

* The courses 3450:100, 113-138, 145, 149, 401; 3470:250-257, 260-262, 280; and most 3460 courses do not meet these degree requirements.

Cooperative Education Program

Mathematical Sciences

Schedule

The work-study schedule for a student participating in the Cooperative Education Program is as follows:

Year	*Fall*	*Spring*	*Summer*
1	School	School	Vacation/School
2	School	School	Vacation/School/Work
3	School	Work	School
4	Work	School	Work
5	School	School	—

Admission

Arrangements for student entry into the program are on an individual basis, and must be initiated by the student during the second year of undergraduate study. The Cooperative Education Program is an optional program available only to all full-time mathematical sciences students at The University of Akron who have satisfactorily met the following requirements:

- Sixty credits with a grade-point average of at least 2.00 out of a possible 4.00 in the program of mathematical sciences curriculum and be on schedule in the curriculum.
- Acceptance by a cooperative education coordinator or director following interviews.
- A transfer student must complete 16 credits of academic work at The University of Akron with a grade-point average of at least 2.00 out of a possible 4.00 and be on schedule in the mathematical sciences curriculum.

A student who desires to participate in the program will fill out a Personal Data form and submit it to the department head. The student will then meet with a member of the cooperative education staff to discuss the availability of prospective employers. During this interview, the student will be asked to sign a Cooperative Educational Agreement and a grade release form which will become effective upon employment. Employment must be coordinated or have approval of the department and the cooperative education director. The University does not guarantee employment for the student. The student will be expected to remain with the employer for all cooperative work periods in order to provide a progression of experience and responsibility.

Registration

While no academic credits are assigned, each student must register for 3000:301 Cooperative Education in the same manner that a student registers for any other University course. See department adviser before enrolling for this course.

A cooperative program fee for each work period is charged. Upon completion of a work period, a statement will appear on each student's official transcript listing the course number, title and name of the employer. In the place of a grade, "credit" or "no credit" will be given, depending upon the student's satisfactory or unsatisfactory completion of the following:

- Work performance as evaluated by the employer.
- Written work report as approved by department head and cooperative education staff.
- Cooperative Work Period Summary form.

Usually, work progresses satisfactorily on the job and a grade of "credit" is assigned at the end of the semester. If all the above conditions are not met, a change of grade to "no credit" will be submitted.

3460: Computer Science

Bachelor of Science

- The General Education requirement and the second year of a foreign language.
- Core curriculum:

		Credits
3460:209	Introduction to Computer Science	4
3460:210	Data Structures and Algorithms I	4
3460:306	Assembly Language Programming	3
3460:307	Applied Systems Programming	3
3460:316	Data Structures and Algorithms II	3
3460:426	Operating Systems	3
3460:430	Theory of Programming Languages	3
3460:465	Computer Organization	3

Option I (Systems)

- Other required courses:

3450:208	Introduction to Discrete Mathematics	4
3450:221	Analytic Geometry-Calculus I	4
3450:222	Analytic Geometry-Calculus II	4
3460:418	Introduction to Discrete Structures	3
3460:428	Unix System Programming	3
3470:461	Applied Statistics I	4

- Electives– approved upper-level computer science courses — 12 credits.

Option II (Business)

- Other required courses:

3450:208	Introduction to Discrete Mathematics	4
3450:215	Concepts of Calculus I	4
3450:216	Concepts of Calculus II	4
3460:302	Programming Applications with COBOL	3
3460:475	Database Management	3
3470:461	Applied Statistics I	4
6200:201	Accounting Concepts and Principles for Business	3
6200:202	Managerial Accounting	3

Select two of the following courses:

6400:371	Business Finance	3
6500:301	Management: Principles and Concepts	3
6600:300	Marketing Principles	3

- Electives– approved upper-level computer science courses — 9 credits

3470: Statistics

Bachelor of Arts
Bachelor of Science

- The General Education requirement and the second year of a foreign language.
- Core curriculum:

3450:221,2,3	Analytic Geometry-Calculus I, II and III	12
3450:312	Linear Algebra	3
3470:451,2	Theoretical Statistics I, II	6
3470:461,2	Applied Statistics I, II	8

Options

Option I (Statistics)

- Other required courses:

3450:421	Advanced Calculus I	3
3450:422	Advanced Calculus II	3
	Electives approved 300/400-level mathematical sciences courses	5

Option II (Applied Statistics)

- Other required courses:

3470:415	Mathematical Concepts for Statistics	4
3470:480	Statistical Computer Applications	3
3470:495	Statistical Consulting	2
	Electives approved 300/400-level statistical courses	2

Option III (Actuarial Sciences BS only)

- Other required courses:

3450:138	Mathematics of Finance	1
3470:415	Mathematical Concepts for Statistics	4
	or	
3450:421,2	Advanced Calculus I, II	6

		Credits
3470:471,2	Actuarial Science I, II	6
	Select two of the following:	
3450:427	Numerical Analysis	3
3450:428	Numerical Linear Algebra	3
3450:436	Mathematical Models	3
3470:469	Reliability Models	3
6500:421	Operations Research	3

- For the Bachelor of Science degree: complete 18 credits of course work outside the major and beyond the General Education requirement in a suitable area of concentration as approved by the department.

The recommended area of concentration for the Actuarial Sciences degree:

3250:244	Introduction to Economic Analysis	3
6200:201,2	Accounting I, II	8
6400:318	Risk Management and Insurance	3
6400:371	Business Finance	3

For the Bachelor of Arts degree: complete 18 credits of humanities or social sciences beyond the General Studies. The 18 credits are to be from more than one department.

- Electives — 13-17 credits.

3500: Modern Languages

3520: French; 3530: German; 3550: Italian; 3570: Russian; 3580: Spanish.

Bachelor of Arts

French

- The General Education requirement.
- Completion of 27 credits above the second year (200 level): six credits in literature, six credits in culture, six credits of electives in the major language, and six credits in composition, and conversation and three credits in advanced grammar.

German

- The General Education requirement.
- Completion of 24 credits above the second year (200 level); six credits in literature, six credits in culture, six credits of electives in the major language and six credits in composition and conversation.

Spanish

- The General Education requirement.
- Completion of 28 credits above the second year (200 level); including at least one language course, one literature course, and one cultural course,all at the 400 level.

3600: Philosophy

Bachelor of Arts

- The General Education requirement and the second year of a foreign language.
- A minimum of 30 departmental credits including:

3600:101	Introduction to Philosophy	3
3600:120	Introduction to Ethics	3
3600:170	Introduction to Logic	3
3600:211	History of Ancient Philosophy	3
3600:312	History of Medieval Philosophy	3
3600:313	History of Modern Philosophy	3
	(Of the additional twelve credits, six must be earned in 300/400-level courses.)	

- Electives — 45 credits.

3650: Physics

Bachelor of Science

This degree is intended for the student seeking the most detailed and quantitative preparation in physics available in an undergraduate curriculum.

- The General Education requirement and the second year of a foreign language.
- Physics requirements:†

		Credits
A minimum of 40 credits at 200 level or higher, including:‡		
3650:291,2	Elementary Classical Physics I and II	8
3650:301	Elementary Modern Physics	3
3650:322,3	Intermediate Laboratory I, II	6
3650:340	Thermal Physics	3
3650:431	Mechanics I	3
3650:436	Electromagnetism I	3
3650:441, 2	Quantum Physics I, II	6
	Physics Electives	8
Highly recommended courses for all students:		
3650:432	Mechanics II	3
3650:437	Electromagnetism II	3
3650:451,2	Advanced Laboratory I, II	6
3650:481,2	Methods of Mathematical Physics I, II	6
3450:312	Linear Algebra	3
3450:432	Partial Differential Equations	4

- Mathematic requirements:

3450:221,2,3	Analytic Geometry-Calculus I, II, III	12
3450:235	Differential Equations	3

- Chemistry requirements:

3150:151, 2, 3	Principles of Chemistry I, II	7

- Computer Science requirement:

3460:209	Introduction to Computer Science	4

The following courses are recommended for students wishing to enhance their program of study in areas of research in the Department:

- Chemical Physics

A suggested program of 20 credits to include the following:		
3150:263,4	Organic Chemistry I, II	6
3150:313,4	Physical Chemistry Lecture I, II	6
3150:423,4	Analytical Chemistry I, II	6
3150:380, 381	Advanced Chemistry Lab I, II	4

- Polymer Physics

A suggested program of 24 credits to include the following:		
3150:263,4	Organic Chemistry	6
3150:313,4	Physical Chemistry Lecture I, II	6
9871:401	Introduction to Elastomers	4
9871:402	Introduction to Plastics	4
9871:411,12,13	Molecular Structure and Physical Properties of Polymers I, II, III	7

- Physics (Pre-Graduate School)

A suggested program of 31 credits to include the following:		
3650:406	Optics	3
3650:432	Mechanics II	3
3650:437	Electromagnetism II	3
3650:481,82	Methods of Mathematical Physics I, II	6
3650:399	Undergraduate Research	1-6
3650:451,52	Advanced Laboratory I, II	6

The preceding requirements specify the minimum curriculum for the B.S. in physics. The student expecting to specialize in a particular professional area should consider utilizing part or all elective courses toward this goal. The areas of specialization listed above are intended to be illustrative only; considerable flexibility is possible, depending upon the needs and interests of the individual student.

† Additional physics courses are usually necessary to satisfy the admission requirements of graduate schools for advanced work in physics or certain other physical sciences.

‡ Only one of the introductory sequences 291,2 or 261,2 is applicable toward the required 40 credits. Courses 3650:130, 133, 137 are not applicable toward the required 40 credits of physics.

Internship Programs

For the academically qualified student majoring in physics, internship programs are available. These programs allow students to gain useful experience at Ph.D. granting universities or government and industrial laboratories while still maintaining full-time student status. These are usually summer programs of 10-week duration and provide a stipend in addition to expenses for relocation. Participation can continue for up to three summers and all students are strongly encouraged to participate for at least one summer.

Arrangements are made on an individual basis and interested students should consider this option after their first year of study. For further information, contact the department.

3700: Political Science

Statement of Policies - Admission

For students enrolled at The University of Akron and for students wishing to transfer directly to Buchtel College of Arts and Sciences from other institutions, the following criteria must be satisfied for admission to the Department of Political Science:

- The student must be admissible to Buchtel College of Arts and Sciences.
- A minimum grade point average of 2.20 must be met in all university work, including transfer credits.
- A minimum grade point average of 2.20 must be met in all work in Political Science, including transfer credits.

Only credits earned at an accredited institution of postsecondary education, as recognized by The University of Akron, will be considered for transfer credit, and only those grades will be considered in the grade point average.

Retention

Students in the Political Science programs must maintain a minimum grade point average of 2.20 overall and a minimum of 2.20 grade point average in Political Science courses in order to remain in the program. A student who fails to maintain the 2.20 cumulative average will be placed on academic probation. Failure to raise the average after one semester or one 10 week summer session will result in dismissal from the program. The student may not apply for readmission for at least one semester.

No course may be repeated for a grade change more than once.

Graduation

A Political Science major must earn a cumulative 2.20 grade point average in Political Science and overall to graduate with such a declared major.

Grades of C- or below obtained in any course at other institutions will not apply toward a Political Science degree at The University of Akron.

Bachelor of Arts

- The General Education requirement and the second year of a foreign language.
- Completion of at least 30 credits in the department. Students must select one of the following two tracks:

American Track

		Credits
3700:100	Government and Politics in the United States	4
3700:201	Introduction to Political Research	3
3700:300	Comparative Politics	4
3700:303	Introduction to Political Thought	3
3700:310	International Politics and Institutions	4

And two 400-level courses (may include 400-level course used to meet the American politics requirement.

- Choose one American politics course from among the following:

3700:341	American Congress	3
3700:350	American Presidency	3
3700:360	Judicial Process	3
3700:402	Politics and the Media	3
3700:474	Political Opinion, Behavior and Electoral Politics	3
3700:475	American Interest Groups	3
3700:476	American Political Parties	3

- Additional Political Science electives to equal 30 credits total in Political Science.

International/Comparative Track

		Credits
3700:150	World Politics and Governments	3
3700:201	Introduction to Political Research	3
3700:300	Comparative Politics	4
	or	
3700:310	International Politics and Institutions	4
3700:303	Introduction to Political Thought	3

And two 400-level courses (may include 400-level course used to meet the American politics requirement.

- Choose TWO American politics courses from among the following:

3700:341	American Congress	3
3700:350	American Presidency	3
3700:360	Judicial Process	3
3700:402	Politics and the Media	3
3700:474	Political Opinion, Behavior and Electoral Politics	3
3700:475	American Interest Groups	3
3700:476	American Political Parties	3

- Additional Political Science electives to equal 30 credits total in Political Science.

Bachelor of Science in Political Science/ Criminal Justice

- Completion of all requirements for the associate degree in criminal justice technology established by the Community and Technical College.
- Completion of General Education requirement requirements.
- Completion of 47 credits of 300/400-level courses.
- At least six credits of course work which will introduce the student to a foreign culture. Such courses shall be selected by the student with the approval of the adviser in the Department of Political Science. Selected courses may be chosen from any of the following departments: modern languages, history, political science, anthropology and geography.
- At least 30 departmental credits including:

Foundations in Political Science:

3700:100	Government and Politics in the United States	4
3700:201	Introduction to Political Research	3
3700:361	Politics of the Criminal Justice System	3

Criminal Justice Core (choose four only)

3700:362	Politics of Corrections	3
3700:363	Comparative Criminal Justice Systems	3
3700:480	Policy Problems: Criminal Justice	3
3700:481	Politics of Policing	3
3700:482	Current Issues in Criminal Justice	3
3700:483	Constitutional Problems in Criminal Justice	3

Internship Requirement

3700:395	Internship in Government and Politics	2-9

(Students are required to take a minimum two credits internship. No more than four credits may be applied toward major in political science.)

Advanced Political Science Courses (choose two only)

3700:341	The American Congress	3
3700:350	The American Presidency	3
3700:360	The Judicial Process	3
3700:370	Public Administration: Concepts and Practices	4
3700:380	Urban Politics and Policies	4
3700:402	Politics and the Media	3
3700:462	The Supreme Court and Civil Liberties	3
3700:474	Political Opinion, Behavior and Electoral Politics	3
3700:475	American Interest Groups	3
3700:476	American Political Parties	3

Bachelor of Science in Political Science/ Public Policy Management

- The General Education requirement and the second year of a foreign language.
- Completion of 47 credits of 300/400 level courses
- Political Science — at least 30 department credits including :

		Credits
3700:100	Government and Politics in the United States	4
3700:201	Introduction to Political Research	3
3700:395	Internship: Government and Politics	3
	or	
	Co-op Collegewide Level	0

Choose three of the following Policy-Related Options:

3700:301	Advanced Political Research	3
3700:370	Public Administration: Concepts and Practices	4
3700:441	Policy Process	3
3700:442	Methods of Policy Analysis	3
3700:480	Policy Problems	3

Two 3700:400-level courses (may include 400-level courses used to meet policy-related option)
Political Science electives

- Accounting:

6200:490	Special Topics: Financial Management for Non-Profit Organizations	3
6200:250	Computer Applications for Business	3

- Computer Science:

3460:126	Introduction to Basic Programming	2

- Economics:

3250:200	Principles of Microeconomics	3

- Statistics:

3470:260	Basic Statistics	3

- Management:

6500:301	Management: Principles and Concepts	3
6500:341	Human Resource Management	3

- Choose one of the following Choice Options:

3250:330	Labor Problems	3
3250:405	Economics of the Public Sector	3

Special Curricular Tracks in Political Science

The department offers three special tracks for the student interested in pre-law, the international service or national, state or local government service. In addition to the requirements for the major, each of these tracks includes electives appropriate for preparation for careers in law, government service or international service.

Information about these curricular tracks may be obtained from the head of the department.

3750: Psychology

Bachelor of Arts

The General Education requirement and a minimum of 40 credits in psychology including:

- 12 credits of core requirements:

3750:100	Introduction to Psychology	3
3750:105	Professional and Career Issues in Psychology	1
3750:110	Quantitative Methods in Psychology	4
3750:220	Introduction to Experimental Psychology	4

- 16 credits from the following six courses:

3750:230	Developmental Psychology	4
3750:320	Biopsychology	4
3750:335	Dynamics of Personality	4
3750:340	Social Psychology	4
3750:345	Cognitive Processes	4
3750:410	Psychological Tests and Measurements	4

- 12 credits of psychology electives, of which no more than four may be fulfilled with 495 Field Experience or 497 Independent Reading and/or Research in Psychology.

- Completion of second year of a foreign language or a similar level of proficiency in American Sign Language.

3850: Sociology

(3850: Sociology; Sociology/Law Enforcement; Sociology/Corrections; 3870: Anthropology)

Bachelor of Arts

Sociology

- The General Education requirement and the second year of a foreign language.
- A minimum of 28 credits in sociology including:

		Credits
3850:100	Introduction to Sociology	4
3850:301,2	Methods of Social Research I and II	6
3850:460	Sociological Theory	4
	Sociology Electives	14

(3870:150 Cultural Anthropology can be counted as part of these credits)

- Electives

The student should consult with a departmental adviser about using electives to enhance the specialty area, e.g., academic sociology, deviance and corrections, family, agency and life cycle, urban planning and social research.

Sociology/Law Enforcement

- The General Education requirement and the second year of foreign language.
- A minimum of 32 credits in the department including:

3850:100	Introduction to Sociology	4
3850:301,2	Methods of Social Research I, II	6
3850:320	Social Inequality	3
3850:330	Criminology	3
3850:430	Juvenile Delinquency	3
3850:433	Sociology of Deviant Behavior	3
3850:441	Sociology of Law	3
3850:460	Sociological Theory	4
3850:495	Field Internship	3

- Electives

Students who enter the Sociology/Law Enforcement program must complete course work in Criminal Justice Technology. This may be done in one of three ways: (1) complete the program requirements for an A.S. in criminal justice; (2) complete 18 credits of criminal justice course work, of which three credits must be 2200:100; or, (3) complete one of the two minors (General Criminal Justice or Corrections Area of Concentration) offered in Criminal Justice Technology.

Students in the Sociology/Corrections program must complete course work in Criminal Justice Technology. This may be done in one of three ways: (1) complete the program requirements for an A.S. in criminal justice; or, (2) complete 18 credits of criminal justice technology course work of which three credit hours must be 2200:100; or (3) complete one of the two minors (General Criminal Justice or Corrections Area of Concentration) offered in Criminal Justice Technology.

Sociology/Corrections

- The General Education requirement and the second year of a foreign language.
- A minimum of 32 credits in sociology including:

3850:100	Introduction to Sociology	4
3850:301,2	Methods of Social Research I, II	6
3850:315	Sociological Social Psychology	3
	or	
3850:411	Social Interaction	3
	or	
3850:412	Socialization: Child-Adult	3
	or	
3850:433	Deviant Behavior	3
3850:330	Criminology	3
3850:429	Probation and Parole	3
3850:430	Juvenile Delinquency	3
3850:431	Corrections	3
3850:460	Sociological Theory	3
3850:495	Field Internship	3

- Electives

Bachelor of Arts in Interdisciplinary Anthropology

This interdisciplinary program allows the student the flexibility to construct a program of study to match interests in four fields of Anthropology. To do so, students are required to complete course work in departments other than Sociology/Anthropology.

- The General Education requirement and the second year of a foreign language.
- Core requirements – 20 credits

		Credits
3300:371	Introduction to Linguistics	3
3870:150	Cultural Anthropology	4
3870:151	Human Evolution	4
3870:250	Introduction to Archaeology	3
3870:359	Anthropology in the 21st Century	3
3870:460	Qualitative Methods: Basis of Anthropological Research	3

- Concentration Electives – a minimum of one course each from three of the following four fields for a total of 15 credits

Archaeological

3370:405	Archaeological Geology	3
3870:356	Archaeology of the Americas	3
3870:472	Special Topics: Anthropology — Field School	3

Biological

3100:111, 112	Principles of Biology	8
3100:217	General Ecology	3
3100:315, 316	Evolutionary Biology and Discussion	4

Cultural

3850:403	History of Sociological Thought	3
3850:421	Race and Ethnic Issues	3
3870:251	Human Diversity	3
3870:270	Cultures of the World	3
3870:357	Magic, Myth and Religion	3
3870:397	Anthropological Research	3
3870:457	Culture and Medicine	3
3870:463	Social Anthropology	3
3870:472	Special Topics in Anthropology: Area Studies	3

Linguistics

3300:470	History of the English Language	3
3300:489	Seminar in English: Sociolinguistics	3
3300:489	Seminar in English: Topics in Native American Linguistics	3
3600:481	Philosophy of Language	3

- Program Electives – a minimum of 11 credits from the following four fields. Students are urged to concentrate in two fields.

Archaeological

3010:201	Introduction to Environmental Studies	2
3350:305	Maps and Map Reading	3
3200:313	Archaeology of Greece	3
3200:314	Archaeology of Rome	3
3200:401, 402	Egyptology I and II	6
3200:404, 405	Assyriology	6
3200:407, 408	Ancient Near Eastern Archaeology	6
3350:310	Physical and Environmental Geography	3
3350:340	Cartography	3
3350:495	Soil and Water Field Studies	3
3370:122	Mass Extinctions in Geology	1
3370:123	Interpreting Earth History	1
3370:126	Natural Disasters and Geology	1
3370:127	Ice Age and Ohio	1
3370:128	Geology of Ohio	1
3370:130	Geologic Record of Climate Change	1
3370:411	Glacial Geology	3
3400:307	Ancient Near East	3
3400:308	Greece	3
3400:317	Roman Republic	3
3400:318	Roman Empire	3

Biological

3100:208, 209	Human Anatomy and Physiology	8
3100:211, 212	General Genetics & Laboratory	4
3100:381	Human Genetics	2
3100:428, 429	Biology of Behavior & Laboratory	4
3100:458	Vertebrate Zoology	4
3100:467	Comparative Vertebrate Morphology	4

Cultural

3250:460	Economic Development and Planning for Underdeveloping Countries	3
3300:350	Black American Literature	3
3300:489	Seminar in English: American Indian Tales	3
3350:320	Economic Geography	3
3350:353	Latin America	3
3350:356	Europe	3
3350:360	Asia	3
3350:363	Africa South of the Sahara	3
3350:375	Geography of Cultural Diversity	2
3400:319	Medieval Europe 500-1200	3
3400:320	Medieval Europe 1200-1500	3
3400:325	Women in Modern Europe	3
3400:416	Modern India	3
3400:472	Latin America: Origins of Nationality	3
3400:473	Latin America: The 20th Century	3
3400:476	Central America and the Caribbean	3
3520:309,310	French Culture and Civilization	3
3530:406,407	German Culture and Civilization	3
3580:427	Latino Cultures in the U.S.A.	3
3850:100	Introduction to Sociology	4
3850:302	Methods of Social Research II	3
3850:320	Social Inequality	3
3850:321	Population	3
3850:323	Social Change	3
3850:340	The Family	3
3850:344	Sociology of Gender	3
3850:423	Sociology of Women	3
3870:355	Indians of South America	3
3870:358	Indians of North America	3
3870:472	Special Topics: Anthropology	3

Linguistics

3300:471	U.S. Dialects: Black and White	3
3300:472	Syntax	3
35xx:xxx	Two semesters of a foreign language different from that used to fulfill the student's undergraduate requirement, including French, German, Italian, Spanish, Russian, Greek, or Latin	6-8
3580:405	Spanish Linguistics: Phonology	4
3580:406	Spanish Linguistics: Syntax	4
7600:325	Intercultural Communications	3
7700:430	Aspects of Normal Language Development	3

- Electives

Division Majors

Humanities

The humanities division consists of the departments of classics, English, modern languages and philosophy. The disciplines of history and the creative and dramatic arts (art, music, theatre arts) are included. The divisional major must include the following:

- The General Education requirement and the second year of a foreign language.
- A minimum of 54 credits, at least 24 of which must be in courses at the 300/400 level. The 54 credits must include 18 credits in each of any three of the following six fields: classics, English, history, modern languages, philosophy and the creative and dramatic arts.
- The first two years of any language in either classics or modern languages will not be included in the 18-credit requirement for those disciplines.

By field, the 18-credit requirement must include:

- Classics:*

		Credits
3200:361	The Literature of Greece	3
3200:362	The Literature of Rome	3
3200:189	Classical Mythology	3

- English:

300/400 level, including at least two courses at the 400 level (minimum)	9

- History:

300/400 level (minimum)	10

- Modern Languages:

Composition and Conversation	6
Literature	6
Any combination of linguistics and culture-civilization	6

- Philosophy:

3600:101	Introduction to Philosophy	3
3600:120	Introduction to Ethics	3
3600:170	Introduction to Logic	3

- Creative and Dramatic Arts:

Non-performance courses in art (7100), music (7500) and theatre arts (7800)	18

Courses for the humanities division major must be selected with the approval of the division adviser. For further information, please contact the Office of the Dean, Buchtel College of Arts and Sciences.

Natural Sciences

The divisional major provides for a broad background in science with concentration in selected areas. It is an appropriate major for those preparing for admission to professional programs in medicine, dentistry or veterinary science or for those desiring a Liberal Arts degree with a general emphasis in science. Additional course work is often necessary for those planning graduate studies in a particular science discipline. The natural sciences division consists of the departments of biology, chemistry, geology, mathematical sciences, and physics. The divisional major must include:

- The General Education requirement.
- 47 credits at the 300-400 level.
- A minimum of 64 credits in the division and/or engineering, at least 27 of which must be in divisional courses at the 300/400 level.
- At least 27 credits from one of the departments of the natural sciences division.
- At least 16 credits with at least two credits at the 300/400 level from another of the following disciplines: biology, chemistry, engineering, geology, mathematics or computer science or statistics, physics, polymer science.
- At least 16 credits from a third of these disciplines; or alternatively, at least eight credits in each of two other of these disciplines.
- A foreign language is strongly recommended.

The courses for the natural sciences division major must be selected from those courses approved by the department offering the course. In general, only courses available toward the major are acceptable. For further information, please contact the Office of the Dean, Buchtel College of Arts and Sciences.

Social Sciences

The social sciences division consists of the departments of economics, geography, history, political science, psychology, sociology and urban studies(graduate program only). The divisional major must include the following:

- The General Education requirement and the second year of a foreign language.
- A minimum of 54 credits, at least 24 of which must be in courses at the 300/400 level. The 54 credits must include a minimum of 15 credits in each of any three of the following six fields: economics, geography, history, political science, psychology and sociology-anthropology.

By field, the 15-credit requirement must include: *Credits*

- Economics: 15

  Any except 3250:100 Introduction to Economics* (must include 3250:200 Principles of Microeconomics and 3250:201 Principles of Macroeconomics)

- Geography: 15
- History: 15

  At least seven of the 15 credits at the 300/400 level

- Political Science: 15

At least seven of the 15 credits at the 300/400 level

3700:100	Government and Politics in the United States	4
	or	
3700:201	Introduction to Political Research	3

Each student shall take at least one course in two of the four areas (American government and politics, comparative politics, international politics and political theory) shown below:

American Government and Politics:

3700:210	State and Local Government and Politics	3
3700:341	The American Congress	3
3700:342	Minority Group Politics	3
3700:350	The American Presidency	3
3700:360	The Judicial Process	3
3700:370	Public Administration: Concepts and Practices	4
3700:380	Urban Politics and Policies	4
3700:381	State Politics	3
3700:402	Politics and the Media	3
3700:440	Survey Research Methods	3
3700:441	The Policy Process	3
3700:461	The Supreme Court and Constitutional Law	3
3700:462	The Supreme Court and Civil Liberties	3
3700:480	Policy Problems	3

Comparative Politics:

3700:300	Comparative Politics	4
3700:320	Britain and the Commonwealth	3
3700:321	Western Europe Politics	3
3700:322	Soviet and East European Politics	3
3700:323	Politics of China and Japan	3
3700:326	Politics of Developing Nations	3
3700:327	African Politics	3
3700:420	Issues and Approaches in Comparative Politics	3
3700:425	Latin American Politics	3

International Politics:

3700:220	American Foreign Policy	3
3700:310	International Politics and Institutions	4
3700:415	Comparative Foreign Policy	3

Political Theory:

3700:302	American Political Ideas	3
3700:303	Introduction to Political Thought	3
3700:304	Modern Political Thought	3

- Psychology: 15
- Sociology-Anthropology: 15

Courses for the social sciences division major must be selected with the approval of the divisional adviser. For further information, please contact the Office of the Dean, Buchtel College of Arts and Sciences.

* Course will not apply toward 54 credits in the major.

Bachelor of Science/Doctor of Medicine Degree (B.S./M.D. Program)

Introduction

The University of Akron, Kent State University, Youngstown State University, and Northeastern Ohio Universities College of Medicine (NEOUCOM) offer, as a consortium, a six-year B.S./M.D. program. Each year The University of Akron admits a limited number of carefully selected students into its B.S./M.D. degree option. Only students with no college credit after completion of high school are eligible. The deadline for application to the program is December 15.

Students selected for the program enter Phase I, the B.S. degree phase, where they may obtain the baccalaureate degree in two years on the Akron campus(summers included). Phase I students who successfully complete coursework requirements, maintain required grade point averages, achieve required scores on the Medical College Admission Test, and meet all other standards of readiness for medical education are then promoted directly to NEOUCOM for Phase II of the B.S./M.D. program. Phase II consists of a four-year medical school course of study, at the NEOUCOM campus and at selected clinical campuses, leading to the M.D. degree.

During Phase I, B.S./M.D. students usually pursue a natural sciences division major in the Buchtel College of Arts and Sciences, although other majors may be selected with the approval of the B.S./M.D. Program Coordinator. B.S./M.D. students are eligible for participation in the University Honors Program. Curricula for both options are listed below.

B.S./M.D. students pursuing either the regular or honors track may also complete a certificate in Gerontology by fulfilling requirements from courses available from the Institute for Life-Span Development and Gerontology and the Office of Geriatric Medicine, NEOUCOM. Application is made through the Institute for Life-Span Development and Gerontology.

Requirements

Group I: 15 hours

		Credits
• Required:		
1880:310	Medicine and the Humanities	3
3600:361	Biomedical Ethics	3

• Remaining 9 credits from among the following:

Classics (3200)	Greek (3210)
Latin (3220)	English (3300, above 112)
History (3400)	Philosophy (3600)
Humanities in the Western Tradition I, II (3400:210,211)	World Civilizations (3400:385-391)

Group II: 13 hours

• Required:		
7600:105	Introduction to Public Speaking	3
	or	
7600:106	Effective Oral Communication	3
3300:111	English Composition I Honors	4
3300:112	English Composition II Honors	3
	or	
	Other approved writing class	3-4

• Remaining credits from among the following:

Modern Languages (3520-3580 300 level or above)	Art (7100)
Music (7500)	Musical Organizations (7510)
Applied Music (7520)	Theatre Arts (7800)
Theatre Organizations (7810)	Dance (7900)
Dance Organizations (7910)	

Group III: 9 hours

• Required:		
3750:100	Introduction to Psychology	3

• Remaining six credits from among the following:

Economics (3250)	Geography (3350)
Political Science (3700)	Psychology (3750)
Sociology (3850)	Anthropology (3870)

Group IV: 68 hours (satisfies requirement for Natural Sciences Divisional major).*

• Required:		
Mathematics		
3450:221	Analytical Geometry Calculus I	4
460:125	Descriptive Computer Science	2
3470:261,2	Introductory Statistics I, II	4
Biology		*Credits*
3100:111,112	Principles of Biology I, II	8
3100:211	Genetics	3
3100:461,2	Human Physiology	8
3100:365	Histology	3
	(plus 5 additional biology 300/400 credits—may be transferred from NEOUCOM)	
Chemistry		
3150:151,153	Principles of Chemistry I, II	6
3150:152	Principles of Chemistry I Laboratory	1
3150:154	Qualitative Analysis	2
3150:263,264	Organic Chemistry I, II	6
3150:265	Organic Chemistry Lab	2
3150:401,402	Biochemistry I, II	6
Physics		
3650:261,262	Physics for Life Sciences	8

Free Electives: 14 hours

Free electives may be selected from any departments except physical education (5540), C&T math or science classes, mathematical sciences (3450, 3460, 3470) and sciences (3100, 3150, 3370, 3650). Credits earned in excess of requirements for any Group I-III may be applied toward this free elective requirement. (May be taken on credit/noncredit basis.)

Specific B.S./M.D. Program Requirements: 10 hours

2780:290	CPR	2
3100:190,191	Health Care Delivery Systems	2
3100:290,291	Health Care Delivery Systems	2
1880:201	Medical Seminar and Practicum I	3
Physical Education Requirement:		
5540:120-181	Physical Education	1

B.S./M.D. Honors Track

Students accepted into the NEOUCOM B.S/M.D. program are also eligible to enroll in the University Honors Program.

The B.S./M.D. Program Coordinator will serve as the Honors Preceptor for the B.S./M.D. students. Other faculty will become involved as each student plans the honors project. Requirements for retention in the Honors Program are determined by the Honors Council.

Honors Requirements:

Colloquia:†

1870:250	Honors Colloquium Humanities	2
1870:360	Honors Colloquium Social Sciences	2
	Honors Project:	3

A major research paper will be required. A University of Akron faculty member shall direct the paper. The work must be completed prior to the completion of the undergraduate degree. In any of the following options, each student is expected to file the formal paper with the department of choice and the Honors Council in compliance with the procedures established by the Honors Council. Three options are possible:

1) A student may register for three hours of regular honors project hours in any department currently offering such credit. The student would be expected to complete a major research paper which in some way relates medicine to the discipline of the department.

2) A student may complete a research laboratory project in biology during the first summer of medical school. A formal paper, directed by a University of Akron faculty member, will be submitted as partial completion of the honors requirements.

3) A student may complete a major paper as part of the Human Values in Medicine curriculum at NEOUCOM and transfer up to three hours of credit back to The University of Akron. A University of Akron faculty member should act as co-director of the project.

- B.S./M.D. Honor students will be encouraged to enroll in honors sections whenever possible but honors work in the divisional major will not be required. In the exceptional case, a nonhonors section of English Composition may be approved.
- Students who withdraw from the B.S./M.D. program who are otherwise eligible to continue in the Honors Program may remain in the Honors Program under current requirements.
- Students who withdraw or are no longer eligible to remain in the Honors Program may continue in the B.S./M.D. program provided they meet current B.S./M.D. requirements. Their General Studies requirement will be met by satisfying B.S./M.D. Honors Groups I through III plus three credits of math, six credits of science, and physical education.

* The College requirement of 47 upper level credits is waived for B.S./M.D. students promoted to Phase II in two years. Those who leave the program or take a third year must satisfy this requirement. See adviser for clarification.

† These seven credits will substitute seven of the required free elective credits.

College of Engineering

S. Graham Kelly, Ph.D., *Interim Dean*
Max S. Willis, Jr., Ph.D., *Associate Dean, Research and Graduate Studies*
Paul C. Lam, Ph.D., *Associate Dean, Undergraduate Studies and Diversity Programs*
Deanna Dunn, *Coordinator of Engineering Cooperative Education Program*
Susan Marett, *Director of Women in Engineering Program*

OBJECTIVES

The College of Engineering provides educational opportunities for students at both the undergraduate and graduate levels who wish to pursue careers in engineering. The faculty in the College of Engineering performs research with the purpose of contributing new knowledge to the fields encompassed by engineering principles. Professional service is in concert with the objectives of the University.

COLLEGE REQUIREMENTS

Admission

To be admitted to the College, the student must have a) completed 30 credits of course work; b) completed the second course of Analytical Geometry-Calculus; and c) received "C-"or better in all required math courses that were attempted less than three times, or at least a "B" for any such course attempted a third time. The student must have no more than three grades for any one course and no more than six "repeats for change of grade." The student must have a 2.3 grade-point average in three of the following areas: overall, engineering, math, and science.

Students accepted into the University Honors program as engineering majors are automatically admitted to the College of Engineering. Incoming freshmen with appropriate credentials may receive direct admission to the College upon application (See University Admissions in Section Three)

Transfer Students

Students transferring into the College of Engineering from universities other than The University of Akron must satisfy the same College of Engineering Admission requirements as those students from The University of Akron.

Continuation in the Baccalaureate Programs

Academic Probation

A student is on academic probation when half or more of the credit hours or courses for any semester results in grades of D+, D, D-, F, I, and/or W; the overall or engineering grade point average is less than 1.50; the overall or engineering grade point average for two consecutive semesters is less than 2.00; and the cumulative grade point average for all engineering courses is less than 2.00. Students should consult the Associate Dean, Undergraduate Studies for removal from Academic Probation.

Academic Suspension

A student who has been on Academic Probation for at least one semester, and who is not removed from probation by recommendation from the department head, shall be suspended from the College for a period of two consecutive semesters or a consecutive semester and a summer session only if the student's cumulative grade point average is greater than 2.00. If less than 2.00, the student shall be dismissed from the University unless accepted by another college within the University. Any student who attempts any course for a third time and obtains a grade below a C- shall be suspended from the College for two consecutive semesters or a consecutive semester and summer session.

Degrees

The College offers Bachelor of Science degrees in Chemical Engineering, Civil Engineering, Electrical Engineering, Computer Engineering, Mechanical Engineering, Mechanical Polymer Engineering, Engineering, and Bachelor of Construction Technology.

Requirements for Graduation

Compliance with University requirements, Section 3 of this Bulletin.

Completion of the requirements in the appropriate list of courses and a minimum of 137 credits of course work.

Recommendation of the student's department.

Achievement of 2.00 grade point average in all engineering course work attempted with 4XXX course prefix.

Engineering Accreditation

Engineering is that profession in which knowledge of mathematics and natural sciences, gained by study, experience, and practice, is applied, with judgement, to develop ways to utilize economically the materials and force of nature for the benefit of mankind.

Admission to the engineering profession is normally through a university undergraduate program in one of the disciplines of engineering. Curricular criteria are established by academic and industrial representatives that sit on the Accrediting Board for Engineering and Technology (ABET). The accrediting criteria that have been adopted for undergraduate engineering curricula in the College of Engineering are:

- One year of mathematics and basic science
- One-half year of humanities and social sciences
- One year of engineering science
- One-half year of engineering design

In addition, the ABET 2000 Criteria requires that (1) each program shall make a formal assessment of each student's ABET Required Abilities and (2) that a process must exist by which the student assessments can be used to modify the educational delivery process. The ABET Required Student Abilities are:

- An ability to apply knowledge of mathematics, science, and engineering.
- An ability to design and conduct experiments, as well as to analyze and interpret data.
- An ability to design a system, component, or process to meet desired needs.
- An ability to identify, formulate, and solve engineering problems.
- An ability to communicate effectively.
- An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
- An ability to function on multidisciplinary teams.
- An understanding of professional and ethical responsibility.
- The broad education necessary to understand the impact of engineering solutions in global and societal context.
- A recognition of the need for, and an ability to engage in life-long learning.
- A knowledge of contemporary issues.

Teaching faculty in the undergraduate courses in an engineering program evaluate each student's ABET Required Abilities that are appropriate for that course, and prepare a Student Assessment Report for that course. The Curriculum Assessment Committee for that engineering program assembles the Student Assessment Reports for all the courses in the program to determine that the students who have completed the prescribed program possess all of the ABET Required Student Abilities. The Curriculum Assessment Committee make curriculum recommendations to the program faculty, the department chair, and the dean of engineering.

The Chemical Engineering Program, the Civil Engineering Program, the Electrical Engineering Program, and the Mechanical Engineering Program are ABET accredited programs. The new programs in Mechanical Polymer Engineering and Computer Engineering will be submitted for accreditation for the first time at the next accreditation.

Cooperative Education

The optional cooperative education program provides for a coordinated sequence of alternate periods of classroom instruction and employment during the five-year program.

The cooperative program simultaneously provides for the development of fundamental principles in the classroom and for their application in practice. The student has the opportunity to find the type of work and organization in which the student can best apply individual ability. The student gains an appreciation of the problems of labor and management by first-hand experience. The student develops mature judgement by coping with the everyday problems. The employer of a co-op student has the ability to train and select a student whose abilities and aptitudes can be adapted to the needs of technical staff requirements.

While a student is at work, all rules and regulations prescribed by the employer must be obeyed. In addition, the student is subject to all current labor laws and conditions. The student is considered a full-time student by the University while on industrial assignments.

The University does not guarantee employment, but makes every effort to place a student in the best learning situation that is consistent with the acquisition of sound professional experience.

PROGRAMS OF INSTRUCTION

4200: Chemical Engineering

The goal of chemical engineering education is the development of the student's intellectual capacity and ability to apply the principles of transport phenomena, thermodynamics, and chemical reaction kinetics to the creative resolution of technological problems.

The chemical engineer, like all other engineers, is trained in mechanics, materials, economics, systems, and controls. The chemical engineer differs from all other engineers because the chemical engineer is responsible for materials separations such as air into components of oxygen, nitrogen, argon; and conversion of matter such as natural gas into plastics and coal into liquid fuel.

The chemical engineer finds careers in the chemical process industries, usually becoming involved with inorganic and organic chemicals, rubber, polymers, detergents, petroleum products, metals, pharmaceuticals, biochemical, and food products. The chemical engineer will usually be employed in one or more of the following activities: research and development, plant design and construction, process control, plant operations, sales and management. In addition to the processing industries, the chemical engineer is increasingly in demand in such areas of current interest as management of environment, biotechnology, and energy engineering.

To meet the curriculum requirements specified by the American Institute of Chemical Engineers (AIChE) for ABET accreditation, the chemical engineering program must satisfy the following additional specifications:

- Chemical engineers must receive a thorough grounding in chemistry and the chemistry course that they take should be the same as those taken by chemistry majors.
- A chemical engineering curriculum must include at least one half year of advanced chemistry in addition to the two semester freshman-level course in general chemistry.
- Up to one-eighth of an academic year of other natural sciences (physics, life sciences and materials sciences) may be substituted for advanced chemistry.
- Up to one-fourth of an academic year of advanced chemistry may be counted toward the engineering sciences requirement, provided that the material covered qualifies as chemical engineering science.
- Engineering science credits cannot be used to satisfy the advance chemistry requirement.
- Chemical engineering sciences include material and energy balances; thermodynamics with emphasis on physical and chemical equilibria; heat, mass and momentum transfer; chemical reaction engineering; continuous and stage wise separation operations; and process dynamics and control.
- The various elements of the curriculum must be brought together in a capstone engineering design course or courses built around comprehensive, open-ended problems having a variety of acceptable solutions and requiring some economic analysis.
- Appropriate use of computers must be integrated throughout the program. Acceptable computer use will include most of the following: (1) programming in a high-level language; (2) use of software packages for analysis and design; (3) use of appropriate utilities such as editors; and (4) simulation of engineering problems.

- General Education — 29 credits.
- Natural science:

		Credits
3150:151,2,3	Principles of Chemistry I/Lab, II	7
3150:154	Qualitative Analysis	2
3450:221,2,3	Analytic Geometry-Calculus I, II, III	12
3450:235	Differential Equations	3
3450:xxx	Advanced Mathematics Elective	2
3650:291,2	Elementary Classical Physics I, II	8

- Advanced chemistry:

3150:263,4	Organic Chemistry I, II	6
3150:265	Organic Chemistry Laboratory	2
3150:313,4	Physical Chemistry I, II	6

- Engineering core:

4100:101	Tools for Engineering	3
4200:121	Chemical Engineering Computations	2
4200:305	Materials Science	2
4300:201	Statics	3
4400:320	Basic Electrical Engineering	4

- Chemical engineering:

4200:200	Material and Energy Balances	4
4200:225	Equilibrium Thermodynamics	4
4200:321	Transport Phenomena	3
4200:330	Chemical Reaction Engineering	3
4200:341	Process Economics	2
4200:351	Fluid and Thermal Operations	3
4200:353	Mass Transfer Operations	3
4200:360	Chemical Engineering Laboratory	3
4200:435	Process Analysis and Control	3
4200:441	Process Design	3
4200:442	Plant Design	3

- Electives:

	Advanced Chemistry or Polymer Science	3
	Engineering Design (two courses)	6

Polymer Engineering Specialization Certificate

Chemical Engineering students may earn a Polymer Engineering Specialization Certificate by taking one of the following courses:

4700:401	Introduction to Elastomers
4700:402	Introduction to Plastics
4700:407	Polymer Science

and two of the following:

4200:408	Polymer Engineering
4700:425	Introduction to Blending and Compounding of Polymers
4700:427	Mold Design

BS/MS in Chemical Engineering

The five-year BS/MS program in Chemical Engineering provides superior undergraduate students with the opportunity to complete a master's of science degree in Chemical Engineering with additional year of study beyond their bachelor of science Chemical Engineering degree at The University of Akron. The program is only available to bachelor of science Chemical Engineering students at The University of Akron. Applications are accepted in the spring of the junior year.

4200:600	Transport Phenomena	3
4200:605	Chemical Reaction Engineering	3
4200:610	Classical Thermodynamics	3
4200:631	Chemical Engineering Analysis	3
	Chemical Engineering Electives	3
	Approved Electives	6
	Approved Mathematics	3
	Master's Thesis	6

4300: Civil Engineering

Civil Engineers plan, design, build, and operate the infrastructure of modern society. This includes highways, bridges, large buildings, power plants, industrial facilities, tunnels, seaports, airports, offshore structures and almost anything else needed as the basis of modern life. Civil engineers are also vigorously engaged in environmental activities, particularly creating safe water supplies and transporting it to where it is needed, collecting and treating wastewaters, cleanup of environmental problems, and insuring the safe disposal of solid wastes.

To achieve the high level of professional competence needed, an extensive study of mathematics, mechanics (both solids and fluids), engineering materials, and environmental reactions is required. The civil engineering sub-topics that utilize these fundamentals are environmental, geotechnical, hydraulic, structural, and transportation engineering. The civil engineering curriculum at The University of Akron insures

a firm grounding in all these sub-topic areas, while allowing a specialization, if desired, in the environmental, geotechnical, transportation, and structural areas. Engineering design problems will be incorporated into courses in each area. The senior civil engineering design course will present a problem to involve any one or possibly all of these areas in the design of complex systems.

Most civil engineering graduates work for design consultants, construction companies, or governmental agencies at all levels. Others work for industrial firms and utilities. Many civil engineers own their own businesses.

The curriculum is designed to emphasize the fundamentals which places the graduate in a strong position to pursue further education, formally or informally, and to begin a career in any of the above areas.

To meet the curriculum requirements specified by the American Society of Civil Engineers (ASCE) for ABET accreditation, the civil engineering program must satisfy the following additional specifications:

- Minimum one-half year is required in civil engineering courses.
- To achieve a broad base of coverage, a minimum of four of the major civil engineering discipline areas must be included in each student's program.
- A minimum one-half year of engineering design is required.
- The program is encouraged to develop innovative means of integrating design concepts and methodology throughout the curriculum, which must culminate in a major comprehensive design experience.
- Since the civil engineering design process generally involves a team approach, team design projects are highly recommended.
- Student reports and presentations are an integral part of the final design experience.
- Laboratory experience should be integrated with other learning situations and include such characteristics as creativity, team effort, open-ended decision-making, oral and written communication skills, design of experimental procedures and processes, and use of experimental methods for problem solving, discovery and self-learning.

- General Education – 29 credits
- Natural Science:

		Credits
3150:151,2,3	Principles of Chemistry I+Lab, II	7
3370:101	Introduction to Physical Geology	4
3450:221,2,3	Analytic Geometry-Calculus I, II, III	12
3450:235	Differential Equations	3
3650:291,2	Elementary Classical Physics I,II	8

- Engineering Core:

4100:101	Tools for Engineering	3
4300:201	Statics	3
4300:202	Introduction to Mechanics of Solids	3
4400:320	Basic Electrical Engineering	4
4600:203	Dynamics	3
4600:305	Thermal Science	2
4600:310	Fluid Mechanics	3

- Civil Engineering:

4300:230	Surveying	3
4300:306	Theory of Structures	3
4300:313	Soil Mechanics	3
4300:314	Geotechnical Engineering	3
4300:321	Intro to Environmental Engineering	3
4300:323	Water Supply and Pollution Control	3
4300:341	Hydraulic Engineering	4
4300:361	Transportation Engineering	3
4300:380	Engineering Materials Laboratory	3
4300:390	Civil Engineering Seminar	1
4300:401 or 403	Steel or Reinforced Concrete Design	3
4300:471	Construction Administration	3
4300:490	Senior Design	3

- Electives:

Technical Electives 12

(One course required: a Civil Engineering Design)

Mathematics Elective (Choose one of the following):

3450:427	Introduction to Numerical Analysis	3
3470:461	Applied Statistics	4
4600:360	Engineering Analysis	3

4400: Electrical Engineering

The branches of electrical engineering include: research, development, design, manufacture and operation of electrical and electronic projects, services, and systems for instrumentation, automation, communication, power generation and distribution and computation.

The growth of electronics has been accelerated by the space age and the emergence of the high speed digital computer. There is hardly a segment of the economy that has not been influenced by electronics. The computer has found its way into virtually all aspects of modern life. A student wishing to specialize in computer engineering will find appropriate electives available.

The wide use of electrical means of measurement, control and computation has resulted in the need for electrical engineers in all types of industries. Varied employment opportunities are available.

A student wishing to continue education in graduate school, law school or medical school will find specialized programs of preparation are available within the framework of the department of electrical engineering.

To meet the curriculum requirements specified by The Institute of Electrical and Electronic Engineers, Inc. (IEEE) for ABET accreditation, the undergraduate program in electrical engineering must satisfy the following additional specifications:

- The structure of the curriculum must provide breadth and depth across the field of topics in electrical engineering.
- Breadth requires both the coverage of multiple topics as well as a balance of topics appropriate to electrical engineering.
- Depth requires both a series of topical areas that build upon one another as students progress through the program and a minimum of one topical area at the advanced level.
- Additional study is required in one or more topical areas in mathematics that are consistent with electrical engineering and sufficient for the goals and objectives of the program. These mathematical topics are to be appropriately distributed throughout the electrical engineering program.

Eight laboratories, taught as part of specific courses, help prepare the student for work in the industrial environment.

A significant measure of an engineering education is the degree to which it has prepared the graduate to pursue a productive engineering career that is characterized by continued professional growth. Evaluation beyond the conclusion of the program includes evaluation of the program outcome and adjustment in the workplace through interviews and questionnaires.

- General Education — 29 credits.
- Natural science:

		Credits
3150:151,2,	Principles of Chemistry I/Lab	4
3450:221,2,3	Analytic Geometry-Calculus I, II, III	12
3450:235	Differential Equations	3
3650:291,2	Elementary Classical Physics I, II	8

- Engineering core:

4100:101	Tools for Engineering	3
4200:305	Materials Science	2
4300:201	Statics	3
4300:202	Introduction to Mechanics of Solids	3
	or	
4600:203	Dynamics	3
4450:208	Programming for Engineers	3
4600:305	Thermal Science	2

- Electrical engineering:

4400:101	Intro to Electrical and Computer Engineering	1
4400:231,332	Circuits I, II	6
4400:263	Switching and Logic	4
4400:340	Electric Circuits Laboratory	2
4400:341	Communications and Signal Processing	3
4400:343	Signals and Systems	4
4400:353,4	Electromagnetic I, II	7
4400:360	Physical Electronics	3
4400:361	Electronic Designs	4
4400:371	Control Systems I	4
4400:384	Energy Conversion I	3
4400:385	Energy Conversion Lab	2
4400:401, 2	Senior Project I, II	4

- Electives: Electrical Engineering Electives 18

4450: Computer Engineering

Computer engineering applies computer technology along with traditional engineering science to address systems in which computing is an essential function. Such systems include the smart device or instrument, the flexible manufacturing system and communication system that characterizes the information age. Computer engineering covers a demanding range of science and technology, combining software with hardware, and the discrete with the continuous.

To meet the curriculum requirements specified by The Institute of Electrical and Electronic Engineers, Inc. (IEEE) for ABET accreditation, the undergraduate program in electrical engineering must satisfy the following additional specifications:

- The structure of the curriculum must provide breadth and depth across the field of topics in computer engineering.
- Computer engineering curricula must include sufficient curricula breadth to provide a balanced view of hardware, software, hardware-software trade-offs, and basic modeling techniques used to represent the computing process.
- Breadth requires both the coverage of multiple topics as well as a balance of topics appropriate to computer engineering.
- Depth requires both a series of topical areas that build upon one another as students' progress through the program and a minimum of one topical area at the advanced level.
- Additional study is required in one or more topical areas in mathematics that are consistent with computer engineering and sufficient for the goals and objectives of the program. These mathematical topics are to be appropriately distributed throughout the computer engineering program.

A significant measure of an engineering education is the degree to which it has prepared the graduate to pursue a productive engineering career that is characterized by continued professional growth. Evaluation beyond the conclusion of the program includes evaluation of the program outcome and adjustment in the workplace through interviews and questionnaires.

The Accreditation Board of Engineering and Technology will evaluate the Computer Engineering program at the next accreditation visit.

- General Education – 29 credits
- Natural science:

		Credits
3450:208	Discrete Mathematics	4
3450:221,2,3	Analytic Geometry-Calculus I,II,III	12
3450:235	Differential Equations	3
3650:291,2	Elementary Classical Physics I,II	8

- Computer Engineering:

4100:101	Tools for Engineering	3
4450:208	Programming for Engineers	3
4450:280	Introduction to Computer Systems	3
4450:370	VLSI Design	3
4450:495,6	Design Project I,II	6

- Computer Science:

3460:210	Data Structures & Algorithms I	4
3460:316	Data Structures & Algorithms II	3
3460:465	Computer Organization	3

- Electrical Engineering:

4400:101	Introduction to Electrical and Computer Engineering	1
4400:231,332	Circuits I, II	6
4400:340	Circuits Laboratory	2
4400:263	Switching and Logic	4
4400:341	Communications and Signal Processing	3
4400:343	Signals and Systems	4
4400:360	Physical Electronics	3
4400:365	Microprocessor Systems	3
4400:451	Electromagnetic Compatibility	3
4400:465	Programmable Logic	3

- Electives:

Natural Science Elective	3
Computer Engineering Electives	18

4600: Mechanical Engineering

Mechanical engineers design and analyze physical systems and are employed in a variety of industries in different capacities. Mechanical engineers play important roles in many types of companies, including automotive, petroleum, energy generation and conversion, aerospace, tire, consulting, chemical, electronic, and manufacturing.

The Mechanical Engineering curriculum at The University of Akron is designed to give the student knowledge of fundamental principles of both the (1) thermal stem and (2) structures and motion stem of mechanical engineering, as well as the application of these principles to pertinent problems. A significant measure of the mechanical engineering education is the degree to which it has prepared the graduate to pursue a productive engineering career that is characterized by continued professional growth.

To meet the curriculum requirements specified by The American Society of Mechanical Engineers (ASME) for ABET accreditation, the undergraduate program in Mechanical Engineering must satisfy the following additional specifications:

- The basic-level curriculum shall include two stems of coherent offerings: (1) energy, and (2) structures and motion in mechanical systems.
- A coherent mechanical engineering program shall include at least one course in the electrical sciences.
- An integrated educational experience in the terminal portion of the program is dedicated primarily or in its entirety to engineering design. Documented evidence of the student's participation must be provided for the visitor's evaluation.
- The curriculum also includes extensive computer modeling experiences throughout the program of study.
- The engineering design experiences begin early in the curriculum, are integrated, include group interaction, and culminate in capstone design projects which are based on knowledge and skills acquired in earlier course work.
- The design experiences include analysis, decision-making, use of engineering standards and realistic constraints such as economics, health and safety.
- There should be substantial experience in computer applications in both the (1) energy, and (2) structures and motion in mechanical systems stems.

- General Education — 29 credits.
- Natural science:

		Credits
3150:151,2,3	Principles of Chemistry I/Lab, II	7
3450:221,2,3	Analytic Geometry-Calculus I, II, III	12
3450:235	Differential Equations	3
	Mathematics/Science Elective	3
3650:291,2	Elementary Classical Physics I, II	8

- Engineering core:

4300:201	Statics	3
4300:202	Introduction to Mechanics of Solids	3
4400:320	Basic Electrical Engineering	4
4600:165	Tools for Mechanical Engineering	3
4600:203	Dynamics	3
4600:300	Thermodynamics I	4
4600:310	Fluid Mechanics	3

- Mechanical engineering:

4600:301	Thermodynamics II	3
4600:315	Heat Transfer	3
4600:321	Kinematics of Machines	3
4600:336	Analysis of Mechanical Components	3
4600:337	Design of Mechanical Components	3
4600:340	Systems Dynamics and Response	3
4600:360	Engineering Analysis	3
4600:380	Mechanical Metallurgy	2
4600:400	Thermal System Components	3
4600:401	Design of Energy Systems	2
4600:431	Fundamentals of Mechanical Vibrations	3
4600:441	Control System Design	3
4600:460	Concepts of Design	3
4600:461	Design of Mechanical Systems	2
4600:483	Measurements Laboratory	2
4600:484	Mechanical Engineering Laboratory	2

- Electives:

Electives must include three credits from Mechanical Engineering Design Electives, three credits from Technical Electives, three credits from Mechanical Engineering Technical Electives, and three credits from Math/Science Electives.

Polymer Engineering Specialization Certificate

Mechanical Engineering students may earn a Polymer Engineering Specialization Certificate by taking one of the following courses:

4700:401	Introduction to Elastomers
4700:402	Introduction to Plastics
4700:407	Polymer Science

and the following two courses:

4700:425	Introduction to Blending and Compounding of Polymers
4700:427	Mold Design

A mechanical engineering student may choose a Design of Energy Systems or Design of Mechanical Systems polymer-related project in lieu of one of the above 4700 polymer engineering courses with approvals from the chairs of the Department of Mechanical Engineering and the Department of Polymer Engineering.

4700: Mechanical Polymer Engineering

The Department of Mechanical Engineering in cooperation with the Department of Polymer Engineering has developed the undergraduate program in Mechanical Polymer Engineering. This program integrates mechanical engineering science and design with polymer processing science and technology.

The Mechanical Polymer Engineering curriculum at The University of Akron is designed to give the student knowledge of fundamental principles as well as the application of these principles to polymer processing problems. A significant measure of the Mechanical Polymer Engineering education is the degree to which it has prepared the graduate to pursue a productive engineering career in the polymer industry that is characterized by continued professional growth.

To meet the curriculum requirements specified by The American Society of Mechanical Engineers (ASME) for ABET accreditation, the undergraduate program in Mechanical Polymer Engineering must satisfy the following additional specifications:

- The basic-level curriculum shall include two stems of coherent offerings: (1) energy, and (2) structures and motion in mechanical systems.
- A coherent mechanical polymer-engineering program shall include at least one course in the electrical sciences.
- An integrated educational experience in the terminal portion of the program is dedicated primarily or in its entirety to engineering design. Documented evidence of the student's participation must be provided for the visitor's evaluation.
- The curriculum also includes extensive computer modeling experiences throughout the program of study.
- The engineering design experiences begin early in the curriculum, are integrated, include group interaction, and culminate in capstone design projects which are based on knowledge and skills acquired in earlier course work.
- The design experiences include analysis, decision-making, and use of engineering standards and realistic constraints such as economics, health and safety.
- There should be substantial experience in computer applications in both the (1) energy, and (2) structures and motion in mechanical systems stems.

The Accreditation Board for Engineering and Technology will evaluate the Mechanical Polymer Engineering program at the next accreditation visit.

- General Education - 29 credits
- Natural Science:

		Credits
3150:151,2,3	Principles of Chemistry I/Lab, II	7
3450:221,2,3	Analytic Geometry-Calculus I,II,III	12
3450:235	Differential Equations	3
3650:291,2	Elementary Classical Physics I, II	8

- Engineering Core:

4300:201	Statics	3
4300:202	Intro to Mechanics of Solids	3
4400:320	Basic Electrical Engineering	4
4600:165	Tools for Mechanical Engineering	3
4600:203	Dynamics	3
4600:300	Thermodynamics I	4
4600:310	Fluid Mechanics	3

- Mechanical Engineering:

		Credits
4600:301	Thermodynamics II	3
4600:315	Heat Transfer	3
4600:336	Analysis of Mechanical Components	3
4600:337	Design of Mechanical Components	3
4600:340	Systems Dynamics and Response	3
4600:360	Engineering Analysis	3
4600:360	Mechanical Metallurgy	2
4600:400	Thermal System Components	3
4600:431	Fundamentals of Mechanical Vibrations	3
4600:441	Control System Design	3
4600:460	Concepts of Design	3
4600:483	Measurements Laboratory	2

- Polymer Engineering-Polymer Science:

4700:281	Polymer Science for Engineers	2
4700:381	Polymer Morphology for Engineers	3

- Polymer Engineering:

4700:321	Polymer Fluid Mechanics	3
4700:422	Polymer Processing	3
4700:425	Intro to Blending and Compounding of Polymers	3
4700:427	Mold Design	3
4700:450	Engineering Properties of Polymers	3
4700:451	Polymer Engineering Laboratory	2
4600:461	Design of Mechanical Systems	2
	or	
4600:401	Design of Energy Systems	2
	or	
4700:499	Polymer Engineering Projects	2

The 4700 courses are taught and administered for course content and faculty assignments by the College of Polymer Science and Polymer Engineering.

4980: Construction Technology

Technology Accreditation

Acting upon the recommendation of the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, the Bachelor of Construction Technology is being transferred to the Community and Technology College. Students currently in the program will be permitted to complete the program. New admissions should contact the Community and Technical College. The transfer of the Bachelor of Construction Technology will be completed by the Fall Semester 1999.

Objectives

The purpose of the Construction Technology program within the College of Engineering is to:

- prepare students for careers in the construction industry and other allied industries.
- emphasize this undergraduate program as the University's response to the construction industry's need for well-educated professionals active in a complex and diverse construction environment.
- promote a strong sense of ethics and professionalism.

Cooperative Work Study Requirement

The required Cooperative Work Study experience of the Construction Technology program consists of 52 weeks of construction work experience which may begin after the student has completed 34 hours of coursework in the Construction Technology program. To be qualified for the co-op program (Option A and B) the student must have a minimum quality grade-point average of 2.25 out of a possible 4.0 for Construction Technology courses. During the cooperative phase of this program the student is employed full-time in the construction industry. This schedule provides simultaneously for the development of fundamental principles in the classroom and for their application in construction practice.

Co-op work periods vary depending upon the needs of employers. The co-op requirement can be satisfied by any one of the following options:

A. One calendar year.

B. Three semesters: (Summer, Fall, Summer or Fall, Summer, Fall)

C. Departmental review of prior construction work experience.

Students having prior construction work experience should submit to the Construction Technology Co-op Review Committee appropriate documentation before completing the 34 semester hours within the College of Engineering or prior to their signing their departmental contract. The Construction Technology Co-op Review Committee will determine whether this work experience satisfies the co-op requirement.

Requirements for Admission

Applicants for the Construction Technology program must hold an associate degree in Construction and Surveying from an accredited program or provide evidence of an equivalent academic background. The applicant must have a minimum cumulative grade-point average of 2.1 out of a possible 4.0. Applicants with an associate degree in a discipline other than Construction and Surveying will be required to complete a specific formal set of courses as specified at the time of admission. Final approval for admission is based upon recommendations from the Director of the Construction Technology program.

Degree

The college offers curricula leading to the degree of Bachelor of Construction Technology.

Requirements for Graduation

- Compliance with University requirements (See **Section 3** of this Bulletin)
- Completion of the Program of Study for Construction Technology Program and a minimum of 137 credits of course work.
- Satisfy the Cooperative Work Study Requirement.
- The program is a "two-plus-three" arrangement with the Community and Technical College. All students must meet the requirements of both the associate degree in the Community and Technical College and the Construction Technology degree in the College of Engineering.
- Transferees may be admitted to the program upon recommendation by the director.

Curriculum

The curriculum in Construction Technology is designed to produce a graduate with a strong fundamental knowledge of technology, combined with management ability and a familiarity with business, economics and personnel management. The program is designed to prepare graduates for employment at all levels of the construction industry and allied support industries. The Construction Technology program normally covers three calendar years, two years of academic study and one year of co-op. Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.

- General Education — 15 credits.
- Required Science and Mathematics — 7 credits:

		Credits
2030:356	Calculus for Technical Applications	3
3370:101	Introduction to Physical Geology	4

- Required Technical Courses — 28 credits:

2920:244	Dynamics	2
4980:352	Field Management	2
4980:354	Foundation Construction Methods	3
4980:356	Safety in Construction	2
4980:357	Construction Administration	2
4980:358	Advanced Estimating	3
4980:361	Construction Formwork	3
4980:453	Legal Aspects of Construction	2
4980:462	Mechanical Service Systems	3
4980:463	Electrical Service Systems	3
4980:466	Hydraulics	3

- Required Business Courses — 12 credits:

		Credits
6200:201	Accounting Concepts and Principles	3
6200:202	Managerial Accounting	3
6400:371	Business Finance	3
6500:301	Management Principles and Concepts	3

- Technical Electives — 7 credits:

3370:310	Geomorphology	3
3460:201	Introduction to FORTRAN Programming	3
4300:313	Soil Mechanics	3
4300:314	Geotechnical Engineering	3
4300:361	Transportation Engineering	3
4300:414	Design of Earth Structures	3
4300:418	Soil and Rock Exploration	3
4300:450	Urban Planning	2
4300:474	Underground Construction	2
4980:351	Construction Quality Control	2
4980:355	Computer Applications in Construction	3
4980:465	Heavy Construction Methods	3
4980:467	Special Projects	1-3
4980:468	Construction Management	3
4980:470	Advanced Construction Graphics	3

Bachelor of Science in Engineering

This degree program was established to introduce flexibility into the College of Engineering. Within the 66 credits of the option portion of the program, a student can pursue a focused curriculum in areas such as business administration, industrial management, environmental engineering, biomedical engineering, and premedicine. The program of study may be very narrow as in the case of a student wishing to specialize in structural design, foundation and soil mechanics. For another student interested in patent law, the program may be broad, touching on chemical, mechanical, and electrical engineering subjects. The individual's program is designed to meet each student's announced goals.

Admission

Admission to the program is restricted. A student requests admission by letter to the dean of the College of Engineering, outlining in some detail the particular objective and how the Bachelor of Science in Engineering program may enable the student to prepare for career goals. The mathematics, physics, and chemistry requirements are identical to those of the ABET accredited programs in Chemical Engineering, Civil Engineering, Electrical Engineering, and Mechanical Engineering.

General Curriculum Requirements	*Credits*
General Education and Science Core	61
Program Options Engineering	40
Program Options	26
Free Electives, adviser approval	10

College of Education

Larry G. Bradley, Ph.D., *Interim Dean*
Robert K. Eley, Ed.D., *Assistant Dean, Initial Programs*
Sandra C. Coyner, Ed.D., *Assistant to the Dean*

OBJECTIVES

The purpose of the College of Education is to further the objectives of the University by providing quality programs for the student of education and by helping the student attain the following:

- Special experiences, knowledge and skills particularly useful for teaching in urban and inner-city educational institutions, in keeping with the urban missions of the University.
- A knowledge of a major field and related fields of inquiry and the ability to use this knowledge in explaining the realities of life today.
- A knowledge of instructional materials and new technology and skill in recognizing and utilizing instructional tools most suitable for specific purposes.
- A knowledge of the social issues relevant to education and living in a pluralistic society and the competence to translate implications of changes in society into instructive action as teacher-citizens as well as teacher-scholars.
- An understanding of the learner and the learning processes and the ability to translate these into appropriate teaching behaviors in acting and reacting with students.
- Skills in the acquisition of inquiry techniques appropriate to generalizing knowledge and choices, and practice in using them to inquire into educational problems in rational, defensible ways.
- Human relations skills, including an appreciation of the values and feelings essential for working with young people and with adults, and the ability to develop relationships in a wide variety of professional and social roles in an educational or community setting.

To achieve these objectives, the College offers programs for the preparation of teachers and other educational personnel pre K-adult. The bachelor's, master, and doctoral degrees are awarded upon successful completion of the appropriate courses of study.

Programs include a balanced offering of a foundation in general education, intensive study in the teaching and/or administration content area, and those professional courses and other learning experiences which attempt to combine theory and practice.

The education program and courses presented in this bulletin reflect the most current courses and program offerings. For further information about specific programs and requirements, contact the Dean's office.

COLLEGE REQUIREMENTS

Selection, Admission, Retention, and Teacher Licensure*

The College of Education has selective admission, retention, and graduation requirements for the completion of a program at The University of Akron.

For all students applying to a College of Education teacher preparation program, the admission requirements outlined in the current UA Undergraduate Bulletin will be used to determine admission (or readmission) to all programs.

For retention through graduation, all decisions are made by the department, following the College's or department's approved criteria. Prior to admission to a program, Ohio requires all colleges and universities preparing teachers and educational personnel to assess students in the areas of oral and written communication, mathematics, academic aptitude and achievement, interpersonal relations and motivation. The University of Akron's College of Education admission procedures are designed to establish admission criteria, provide for assessments, allow for skills enhancement, reassessment and reapplication where appropriate, and support the admission of under-represented groups in education.

- **General Education Requirements** – To be admitted to the College of Education, all students must be able to meet the following criteria: A student must have completed at least 30 semester hours of coursework. This coursework must include three semester hours in each of the required courses in mathematics, natural science, social science, and public/oral communications, four (4) semester hours in English composition and one (1) semester hour of physical education. Appropriate General Education equivalencies for transfer students will be determined by the University College Dean's Office. The remaining 13 semester hours must consist of general education coursework that meets the requirements of the University and the admission requirements of the department's program studies area.
- **Grade-Point Average** – For admission, a student must have an overall GPA of 2.50. Also, students must have a GPA of 2.50 in their department's specified pre-admission coursework (30-32 credits).
- **Post-Baccalaureate Grade-Point Average** – Upon review of previous course work and experience, post-baccalaureate students seeking admission to a COE teacher education program who have an overall GPA less than 2.50 but greater than 2.20 may be provisionally admitted to a teacher education program pending completion of courses as specified by departmental advisor with a GPA sufficient to raise overall GPA to 2.50.
- **College Mathematics** – All students must have at least a grade of "B" in three semester credit hours, subject to meeting the department's and the University's general education requirement, or a Pre-Professional Skills Test subscore in mathematics of 171, or a passing score on AP Test in mathematics, or a passing score on the CLEP test.
- **Reading and Writing** – All students must have at least a "B" in 3300:111 English Composition I, or a Pre-Professional Skills Test Writing subscore of 169 and reading subscore of 171, or a passing score on AP Test in English, or a passing score on English CLEP test.
- **Speech and Hearing** – Ohio law requires that all education students take a speech and hearing test through a licensed professional and/or approved clinic. Students with deficiencies must follow through on recommended treatment.
- **Good Moral Character** – Ohio law requires that all students sign a statement attesting to good moral character.
- **College of Education Application** – All students must complete a College of Education application form.
- **Admission Timeline** – Admission to a College of Education teacher preparation program is in effect for five years from the date of admission.

Important Note: New State licensure requirements go into full effect September 2, 2002. Any student who attains full admission to a teacher education Initial Program by completion of Fall Semester 1998 courses with the required grade point averages and all other entrance requirements, has the option of either a current certification program or a new licensure program. **Any student eligible for a certification program must complete all program requirements and be an approved applicant whose 4-year provisional certificate has been issued by the state of Ohio prior to Sept. 2, 2002.** All other students, including those classified as entering freshmen for 1998-99 or thereafter, must complete new licensure requirements for Initial Programs. Students who question their status or options should seek College of Education advisement.

All criteria and procedures regarding selective admission and retention are available in the Office of Student Services, Zook Hall, The University of Akron, Akron, OH 44325, phone (330) 972-6966.

Application for Admission to Professional Education Programs

All students are expected to complete an application for admission. Applications are available in the Dean's Office.

- **References** – Students are expected to ask two individuals, not related to them, but who know them well, to complete a reference form attesting to their interpersonal skills and motivation to teach.
- **Program Area of Study** – All students are expected to comply with requirements specified by the program to which they are applying. These are available in the department.
- **Advisement** – All students will be assigned an advisor, who will complete an individual advisement program plan. In keeping with the philosophy of the College of Education's teacher education curriculum "Educator as Decision Maker," students are encouraged to see their program advisor as frequently as necessary to assure they are maintaining positive progress in their program.

* These requirements do not apply to non-teacher licensure degree programs. See specific program requirements for those areas.

- **Retention** – Retention of students in each program will be evaluation-based. Students will have opportunities to upgrade their skills and achievement in areas where such needs may exist. Completion of program requirements will be reviewed annually by the student and advisor. Areas of strength and weakness are to be evaluated, and, if a student presents an area of weakness, the advisor will refer the student for remediation. Approval to student teach is contingent on the student's progress through the program of study with satisfactory grades. Graduation is contingent on completion of coursework, student teaching, G.P.A. of 2.5 overall, 2.5 in education classes, and 2.5 in the student's major.
- **Licensure** – After graduation, students may apply for licensure through the Office of Student Services. The State of Ohio requires all applicants for licensure to pass the appropriate examination(s) for intended area(s) of licensure. Information about specific requirements for specific licenses can be obtained from the departments.
- **Conditional Admission** – Students who meet all admission requirements except the completion of the 30 hours, and are currently enrolled in the courses to complete these hours, may register for Phase I education courses.
- **Coursework** – Coursework over ten years old may not be applicable for certification. Check with your advisor regarding specific departmental policies.
- **Transfer Students** – Transfer students will be expected to meet the same admission standards as Akron students.
- **Post-Baccalaureate Students** – Qualified post-baccalaureate students will be admitted to the College of Education and to the appropriate department once they meet all requirements.

Bachelor's Degrees

A student prepares to teach any one of the following areas or fields: early childhood (prekindergarten through grade 3), middle childhood (grades 4 through 9) the conventional academic fields found in programs for adolescent to young adult students (grades 7 through 12), the vocational fields of business and family consumer sciences (grades 4 and beyond) and postsecondary technical education. A minimum of 128 credits with a grade-point average of 2.50 overall, 2.5 in education classes, and 2.5 in the student's major must be completed to qualify for the bachelor's degree.

The specific subjects required for degrees in certain fields are set forth in subsequent pages. In all cases, the requirements include courses in General Education, content areas and professional education.

The Bachelor of Arts in Education degree is granted to those whose major is in one of the academic fields. The Bachelor of Science in Education is granted to those whose major is in the other special fields or in elementary education.

The Bachelor of Science in Technical Education is awarded to those who complete the requirements of that program.

Teacher Education Program

Overview – The central theme of The University of Akron's Teacher Education Program is "Educator as Decision-Maker." This was chosen because the complexity of teaching is increasing and the professional knowledge base is growing. Consequently, the most important skill a future teacher can have is good decision making; knowing "when to do what." Decision making is reflected in the program's 17 beginning teacher competencies (BTC's), which are stressed throughout the program, in all courses and field experiences.

Beginning Teacher Competencies (BTC's) – Regardless of their area of certification, all teacher education students will receive training in the 17 competencies that the College's faculty believe every beginning teacher should have. They are: 1) Communication skills, 2) Characteristics of learners, 3) Planning and instruction, 4) Knowledge of teaching strategies, 5) Commitment to lifelong learning, 6) Problem solving, 7) Decision making, 8) Motivation, 9) Communication with parents, 10) Assessment, 11) Diversity of learners, 12) Appreciation of the right of equal access to education, 13) Use of instructional resources, 14) Knowledge of health and safety needs, 15) Ability to structure subject matter, 16) Classroom management, and 17) Knowledge of a specialty area. These competencies include knowledge, skills, attitudes, and values.

Students must complete appropriate 5050 courses with grades of 'C' or better before being allowed to progress to the next phase of professional education courses.

Professional Preparation

Built on a foundation of general studies that begins prior to admission, the Teacher Education Program is organized into four phases that reflect how teachers can learn to make good decisions.

- *Phase I.* Learning About Learners, "How can I use information about myself and others to understand decisions about students and learners?"
- *Phase II.* Learning About Teaching, "How do I use principles of learning to make instructional decisions?"
- *Phase III.* Learning to Apply the Principles of Teaching, "How do I make instructional decisions for specific groups of students?"
- *Phase IV.* Learning to Teach, "How do I make the best decisions for students?"

During each phase of the program, students take a combination of core courses, field experiences, and courses in their program studies area that are tied to each phase. The core courses cover the knowledge base that is common for all teachers, regardless of their teaching field. The field experiences provide students with experience in schools from the very beginning of their program.

Program studies area courses are related to students' intended area of certification. In addition, students have an adviser to help plan what to study and to review what has been accomplished.

Some courses are taught in blocks, which permit students to integrate what they are learning. For example, students will take instructional design and instructional resources as a block; this provides an opportunity to plan instruction and develop resource materials for instruction at the same time. Additionally during their field and clinical experiences, teacher education students learn to apply what they are learning in courses.

The culminating experience for teacher education students is student teaching. Under the supervision of a team of college faculty and a classroom teacher, each student teacher begins to put newly developed competencies into practice.

Clinical and Field-Based Experiences

All teacher education students are required to participate satisfactorily in clinical and field-based experiences for a minimum of 600 hours prior to recommendation for certification for teaching in Ohio. These clinical and field-based experiences are designed to provide teacher education students with the opportunity to apply theory and skills related to their areas of licensure in at least one-half of the clinical and field-based clock hours. The field-based experiences are planned in culturally, racially, and socio-economically diverse settings. Clinical experiences are those planned activities in which teacher education students apply the principles of the field of teaching to individual cases or problems.

Student Teaching

Student teaching is an all-day, full-time experience in an approved public or private school for either 11 (adolescent to young adult licenses) or 16 (early and middle childhood and multi-age licenses) weeks. Placements are made in appropriate sites at the discretion of the Field Experience Officer.

All students must have their education adviser's recommendation and approval of the Teacher Education Review Committee prior to the student teaching experience.

To qualify for student teaching, students must have a 2.50 average overall, 2.5 in education classes, and 2.5 in the student's major, and in methods courses(as defined by departments), core courses and in their teaching field(s). Satisfactory completion of at least 300 hours of field and clinical experience is also required before student teaching.

Note: Music majors, before assignment for student teaching, are required to pass the General Musicianship Examination described in the music section of the College of Fine and Applied Arts. To avoid possible delay in graduation, it is necessary for the student to take the examination six months prior to the anticipated assignment for student teaching.

Licensure

Every teacher in Ohio public schools is required to have a teaching license covering the fields in which teaching is being done. This license is issued by the Ohio State Department of Education upon recommendation of the dean of the college. The student must pass appropriate examinations required in Ohio, complete the appropriate program requirements successfully, and be recommended for a teaching license. Application for the license may be obtained from the Office of Student Services, College of Education, Zook Hall 213; (330) 972-7696.

Students Enrolled in Other Colleges at The University of Akron

All students, regardless of the degree-granting college in which they are enrolled, must fulfill requirements for admission to a teacher education program within the College of Education and must comply with procedures on selective admission and retention, and recommendation for certification. (Please see requirements listed elsewhere in the bulletin section.)

Cooperative Education

The requirements for participation in the Co-op Program are as follows. The student must:

- Be admitted to the College of Education, which requires completion of 30 credit hours with at least a 2.50 overall grade-point average.
- Sign an agreement card which states that participation in Cooperative Education will not meet College of Education or State of Ohio requirements for clinical/field experience or student teaching.
- Agree to abide by all rules and regulations of Cooperative Education.
- Apply for admission to Cooperative Education through the completion of a Cooperative Education workshop.

PROGRAMS OF INSTRUCTION

5200: Elementary Education

Early Childhood

The early childhood program is for those preparing to teach age three through grade three inclusive. Students in this program must achieve a "C" or better in all 5200 courses in order to student teach. Requirements for a major in early childhood education are as follows:

- General Education — 42 credits *Credits*
- Professional Education:

Core Courses:

5050:210	Characteristics of Learners	3
5050:211	Teaching and Learning Strategies	3
5050:310	Instructional Design	3
5050:311	Instructional Resources	3
5050:320	Diversity in Learners	3
5050:330	Classroom Management	3
5050:410	Professional Issues in Education	3

Reading Courses — 12 hours

5200:245	Understanding Language Literacy	3
5200:325	Teaching Phonics in Language Literacy Field Experience	2
5200:345	Teaching Phonics in Language Literacy	4
5200:425	Evaluating Language LiteracyField Experience	1
5200:445	Evaluating Language Literacy	2

Early Childhood Specific Requirements — 30 hours

5200:286	Children's Literature	3
5200:316	Kindergarten Curriculum and Instruction	4
5200:360	Teaching in the Early Childhood Center	2
5200:370	Early Childhood Center Lab	2
5610:440	Developmental Characteristics of Exceptional Individuals	3
5610:450	Special Education Programs in Early Childhood	3
7400:265	Child Development	3
7400:270	Theory and Guidance Play	3
7400:280	Early Childhood Curriculum Methods	4
7400:360	Parent-Child Relations	3

Methods of Teaching — 20 hours

5200:320	Visual Arts Application	3
5200:333	Science for the Early Childhood/Middle Level Grades	3
5200:338	Teaching Social Studies in Early Childhood/Middle Level	3
5200:342	Teaching Early Childhood/Middle Level Math	3
5200:365	Comprehensive Muscianship for Early Childhood/Middle Level Teachers	3
5200:415	Micro. Applications for Elementary Teachers	3
5550:336	Motor Learning & Development for Early Childhood	2

Student Teaching — 12 hours

5200:495	Student Teaching (8 weeks pre-K or K; 8 weeks grades 1-3)	12
5200:498	Student Teaching Colloquium	1

Minimum number of hours required for graduation and certification 138

TESOL Validation (Teaching English to Speakers of Other Languages)

This program introduces students to the key issues in teaching English to non-native speakers through coursework in linguistics, second language theory and methods, and in related disciplines.

Students seeking this validation must have studied a foreign language at some-time during their academic career.

Students who do not have English as a native language must demonstrate adequate proficiency in English with a valid TOEFL score of 580 or above and a score of 240 or above on the TSE (Test of Spoken English).

- Required coursework: *Credits*

3300:371	Introduction to Linguistics	3
	or	
3300:489	Seminar in English: Introduction to Bilingual Linguistics	3
3300:473	Seminar in Teaching ESL: Theory and Method	3
3300:489	Seminar in English: Sociolinguistics	3
	or	
5630:481	Multicultural Education in the United States	3
3300:489	Seminar in English: Grammatical Structures of Modern English	3
5630:487	Techniques for Teaching English as a Second Language in the Bilingual Classroom	4
5630:485	Teaching Reading and Language Arts to Second Language Learners	4
5300:395	Field Experience in Teaching English as a Second Language	2

Computer/Technology: Early Childhood Level

Students who are preparing to teach at the early childhood level or who already hold an early childhood teaching license may add a computer/technology endorsement by completing the following courses:

2440:270	Network Administration	4
	or	
2440:276	Network Advanced Administration	
2440:272	Network Technologies	2
	or	
3460:455	Data Communications and Networks	3
3460:209	Introduction to Computer Science	4
5050:311	Instructional Resources	3
	or	
5100:420	Introduction to Instructional Computing	3
5100:397	Independent Study: Planning for Technology	3
5200:415	Microcomputer Applications for Elementary Teachers	3
	Total hours required for endorsement	19-20

5300: Secondary (Adolescent to Young Adult) Education

The secondary program is for the student preparing to teach in middle, junior and senior high schools. A list of the specific requirements for the various teaching fields will be provided for the student by the college adviser or by the head of the Department of Curricular and Instructional Studies. For information regarding employment in non-school settings which capitalize on a teacher's skills, see the department head.

A student must have completed at least eight semester credits in the teaching field with a 2.5 grade-point average, both overall and in the teaching field(s), before transferring to the upper college and must have at least a "C" grade in English composition or its equivalent. A student must have a minimum of a 2.5 grade-point average in the declared teaching fields and education courses to be eligible for placement for student teaching.

The general requirements for a major in secondary education are as follows:

- General Education — 42 credits

3300:111	English Composition I*	(Minimum grade of C or better)	4
3300:112	English Composition II*	(Minimum grade of C or better)	3
5540:xxx	Physical Education*		1
7600:105	Introduction to Public Speaking*		3
	or		
7600:106	Effective Oral Communication*		3
3450/3470:xxx	Math Requirement*	(3450:100 does not count)	3
	Natural Sciences	(five credits required for admission to College of Education)	8
	(See General Education program under University College.)		
	Social Science	(three credits required for admission to College of Education)	6
	(See General Education program under University College.)		

* Required for admission to the College of Education. (Total of 32 credits)

		Credits
	Humanities *(See General Education program under University College)*	10
	Area Studies/Cultural Diversity Requirement *(See General Education program under University College)*	4

NOTE: In addition to the preadmission coursework cited above, students are required to take eight credits of coursework in their teaching fields*. This does not include coursework already used above. A 2.50 GPA in all completed teaching field coursework is required.

- Professional courses (courses to be taken in an approved sequence):

5050:210	Characteristics of Learners	3
5050:211	Teaching and Learning Strategies	3
5050:310	Instructional Design	3
5050:311	Instructional Resources	3
5050:320	Diversity of Learners	3
5050:330	Classroom Management	3
5050:410	Professional Issues in Education	3
5300:311	Instructional Techniques in Secondary Education@	5
5300:375	Exploratory Experience in Secondary Education@	1
5300:445	Computer Applications for Secondary Teachers	3
5300:495	Student Teaching	8
5300:496	Student Teaching Colloquium	1
5610:440	Developmental Characteristics of Exceptional Individuals	3

- Courses in teaching field(s) and electives as determined by the department.

Teaching Fields

Each student preparing for secondary school teaching must complete at least one teaching field. P-12 indicates that licensure in that field is for preschool through grade 12. Other fields lead to licensure for grades 7-12 or as noted. Minimum number of credits is shown for each field.

Minimum Number of Credits Required for Approval in Various Teaching Fields

Comprehensive Subjects by Field

Integrated Language Arts with reading endorsement (required for undergraduate students in language arts; optional for graduate students in language arts)	63
Integrated Language Arts (not available to undergraduate students)	48
Integrated Mathematics	43
Integrated Science (six options)+:	
Biology (Life Science) and Earth Science	79-80
Biology (Life Science and Chemistry	84-85
Biology (Life Science) and Physics	83-84
Earth Science and Chemistry	79
Earth Science and Physics	70
Chemistry and Physics	79
Integrated Social Studies	62
P-12 Dance	
P-12 Drama Theatre	
P-12 Foreign Language	45
P-12 Music	54-56
P-12 Visual Arts	58
Integrated Business (grades 4-12)	68
Family and Consumer Science (Home Economics; grades 4-12)	
Endorsements in the following fields may be added to any of the above fields:	
Computer/technology	31-32
Reading	
TESOL (Teaching English to Speakers of Other Languages)	22

* Required for admission to the College of Education (Total of 30 credits).

\+ Licensure in integrated science, which allows one to teach all of the sciences, is available for 4-15 hours beyond the basic science graduation requirements. See Department of Curricular and Instructional Studies for details.

@ Variations will occur in K-12 certification fields. See Program Plan sheets for specific courses.

Computer/Technology: Secondary Level

Students who are preparing to teach at the secondary level or who already hold a secondary teaching license may add a computer/technology endorsement by completing the following courses:

		Credits
2440:270	Network Administration	4
	or	
2440:276	Network Advanced Administration	
2440:272	Network Technologies	2
	or	
3460:455	Data Communications and Networks	3
3450:208	Discrete Mathematics	4
3460:209	Introduction to Computer Science	4
3460:210	Data Structures and Algorithms I	4
3460:316	Data Structures and Algorithms II	4
5050:311	Instructional Resources	3
	or	
5100:420	Introduction to Instructional Computing	3
5100:397	Independent Study: Planning for Technology	3
5300:445	Microcomputer Applications for Secondary Teachers	3
Total hours required for endorsement		31-32

Middle Level Computer/Technology Endorsement

3450:208	Discrete Mathematics	4
3460:209	Introduction to Computer Science	4
3460:210	Data Structures and Algorithms I	4
5100:397	Independent Study tagged Planning for Technology	3
Electives		
2440:270	Network Administration	3
2440:272	Network Technologies	3
2440:276	Network Advanced Administration	2
3460:455	Data Communications and Networks	3
5050:311	Instructional Resources	3
5100:420	Introduction to Instructional Computing	3
5200:415	Microcomputer Applications for Elementary Teachers	3
5300:445	Microcomputer Applications for Secondary Teachers	3

5400: Technical Education

The undergraduate program in technical education is designed to prepare instructors and other personnel for postsecondary educational institutions, industry and public and private agencies engaged in the education and training of technicians. The program is divided into the following major classifications: business technologies, engineering technologies, health technologies, natural science technologies, and public service technologies. The baccalaureate program is intended to produce instructors primarily for teaching subjects within a technical specialty. Graduates of this program are awarded the degree of Bachelor of Science in Technical Education.

A student may elect other career areas when the courses are available and the advisor approves.

The technical education program includes work in three areas: General Studies; the technical specialty and professional education. Specific course requirements may be secured from the Department of Curricular and Instructional Studies or from the advisors in technical education.

Technical Education students are exempt from e PPST, the speech/hearing test and the letters of recommendation to admission criteria.

- General Education Courses — 43 credits
- Professional Education Course — 25 credits minimum with a 2.5 GPA or better.

3750:100	Introduction to Psychology	3
5400:400	Postsecondary Learner	3
5400:405	Workplace Education for Youth and Adults	3
	or	
5400:415	Training in Business and Industry	
5400:420	Technologies and Media for Technical Instruction	3

Phase II

(Phase I courses must be completed successfully before Phase II courses are started. Phase II courses must be taken in the order listed.)

		Credits
5400:430	Systematic Curriculum Design for Technical Education	3
5400:435	Instructional Techniques in Technical Education	3
5400:403	Technical Education Practicum Seminar	3
5400:495	Technical Education Practicum	4

- Technical Field Content Courses — 51-60 credits with a 2.5 GPA or better (Stop by Zook 102 for determination of these course requirements.)
- Electives — 0-9 credits.

Requirements for Graduation

In addition to the general requirements of the College of Education, a student in technical education must obtain at least a 2.50 average in all major departmental professional courses (5400), all professional education courses, and a 2.50 average in all technical courses directly related to the student's teaching field.

Reminder: All students pursuing teacher education programs at The University of Akron are subject to the selective admission and retention requirements. Criteria and procedures are available in the Office of the Dean, College of Education, Zook Hall 210, The University of Akron, Akron, OH 44325; (330) 972-5188.

5500: Middle Level Education

The middle level licensure program is for those preparing to teach in grades four through nine inclusive. Students in this program must achieve a "C" or better in all education courses in order to student teach.

- General Education Courses — 42 credits
- Professional Education:

5050:210	Characteristics of Learners	3
5050:211	Teaching and Learning Strategies	3
5050:310	Instructional Design	3
5050:311	Instructional Resources	3
5050:320	Diversity in Learners	3
5050:330	Classroom Management	3
5050:410	Professional Issues in Education	3
5200:245	Understanding Language Literacy	3
5200:325	Teaching Phonics in Language Literacy Field Experience	2
5200:345	Teaching Phonics in Language Literacy	4
5200:415	Microcomputer Applications for Elementary Teachers	3
	or	
5300:445	Microcomputer Applications for Secondary Teachers	3
5200:425	Evaluating Language Literacy Field Experience	1
5200:445	Evaluating Language Literacy	2
5200:495	Student Teaching	6
5200:496	Student Teaching	6
5500:300	Middle Level Education	3
5610:440	Developmental Characteristics of Exceptional Individuals	3

- Areas of Concentration — Two areas of concentration are required to be completed from four areas: mathematics, reading/language arts, science, and social studies.

Mathematics — 23 hours

- 3 hours from General Education mathematics

3450:149	Pre-Calculus	4
3450:208	Discrete Mathematics	4
3450:289	Topics: Middle School Math	3
3470:261	Introduction to Statistics I	2
3470:262	Introduction to Statistics II	2
5300:311	Instructional Techniques: Math	5

Reading/Language Arts — 40-41 hours

- 10 hours from General Education English composition and oral communication
- 12 hours from reading listed above (5200:245, 345, 325, 425 and 445)

5200:350	Integrating Language Arts and Media	3
5200:351	Modes of Writing for the Middle Grades	3
5250:440	Developmental Reading in Content Areas	3
5250:442	Teaching Reading to Culturally Diverse Learners	3
5300:330	Teaching Adolescent/Middle Level Literature	3
5630:485	Teaching Reading & Language Arts to Second Language Learners	4

Three hours from the following:

		Credits
3300:301	English Literature I	3
3300:302	English Literature II	3
3300:315	Shakespeare: The Early Plays	3
3300:316	Shakespeare: The Mature Plays	3
3300:341	American Literature I	3
3300:342	American Literature II	3
3300:350	Black American Literature	3
3300:446	American Autobiography	3
3300:451	Modern American Poetry to 1900	3
3300:452	Modern American Poetry	3
3300:454	20th Century American Drama	3
3300:455	The American Short Story	3

Science — 28 hours

- 8 hours from General Education natural science
- 2 hours of electives selected from 3300:121-136, 138-139, 490, 495 or 499
- 2 hours of science electives chosen so that the 8 hours of general education and electives include three areas of science: earth science (i.e., geology), life science (i.e., biology), and physical science (i.e., chemistry or physics). At least two of these courses must include a lab.

3100:295	Special Topics:Inquiry in the Life Sciences	3
3150/3650:150	Integrated Physical Sciences	3
3370:137	Earth's Atmosphere and Weather	1
3650:130	Astronomy	4
5300:311	Instructional Techniques: Science	5

Social Studies — 36 hours

- 10 hours General Education from social science and area studies

5300:311	Instructional Techniques: Social Studies	5
3250:100	Introduction to Economics	3
3350:100	Introduction to Geography	3
3400:250	U.S. History to 1877	4
3400:251	U.S. History since 1877	4
3400:470	Ohio History	3
3700:100	U.S. Government and Politics	4

Non-concentration teaching methods:

Required:

- Teaching methods course in non-concentration area(s) from the following list:

5200:333	Science for Early Childhood/Middle Level Grades *Required only for non-science concentration*	3
5200:338	Teaching Social Studies in Early Childhood/Middle Level Classrooms *Required only for non-social studies concentration*	3
5200:342	Teaching Early Childhood/Middle Level Mathematics *Required only for non-math concentration*	3

5550: Physical Education
5560: Outdoor Education
5570: Health Education

Undergraduate programs in the Department of Physical and Health Education lead to state certification in health and physical education (7-12 and K-12). There is also a school nurse certification program, as well as one in dance. State validation is also available in adapted physical education.

A program is offered in Athletic Training for Sports Medicine and can lead to certification with the NATA. The Sport and Exercise Science Program is also available for those students considering exercise science and other allied areas. In addition to public school employment, graduates may be prepared for employment in various recreation professions, business and industry fitness centers, and numerous allied health and exercise professions.

- General Education Courses for all Department of Physical and Health Education majors (43-45 credits)

3100:208	Human Anatomy and Physiology*	4
	and	
3100:209	Human Anatomy and Physiology*	4
xxxx:xxx	Natural Science*#	1
	(See General Education requirements under University College. Select from any set except Biology.)	
3300:111	English Composition I*	4

* Required for admission to College of Education.

\# These courses are not required for Athletic Training for Sports Medicine (NATA/non-NATA)

		Credits
3300:112	English Composition II*	3
3400:210	Humanities in the Western Tradition I	4
xxxx:xxx	Humanities Coursework *(See General Education requirements under University College)*	6
xxxx:xxx	Area Studies/Cultural Diversity *(See General Education requirements under University College)*	4
3750:100	Introduction to Psychology*	3
3850:100	Introduction to Sociology*	4
5540:xxx	Physical Education *(Health Education/Athletic Training/ Dance Education only)**	1
5550:193	Orientation to Teaching Physical Education*	3
7600:105	Introduction to Public Speaking*	3
	or	
7600:106	Effective Oral Communication*	3

- Mathematics (choose one option)*

Option 1		
3450:113	Combinatorics and Probability	1
3450:114	Matrices	1
3450:138	Mathematics of Finance	1
Option 2		
3470:260	Basic Statistics	3
Option 3		
3450:138	Mathematics of Finance	1
3470:261	Introduction to Statistics	2
Option 4		
3450:145	College Algebra	4

- Professional Education Courses for all Department of Physical Education and Health Education majors# (33 credits)

5050:210	Characteristics of Learners[1]	3
	and	
5050:211	Teaching and Learning Strategies[1]	3
5050:310	Instructional Design[2]	3
	and	
5050:311	Instructional Resources[2]	3
5050:320	Diversity in Learners	3
5050:330	Classroom Management	3
5050:410	Professional Issues in Education	3

The following should be taken at the same time but only after completion of all General Studies, Professional Education, and Department requirements are completed.

5550:494	Student Teaching Colloquium for Physical and Health Education	2
5550:495	Student Teaching for Physical and Health Education	10

Pre-K-12 Physical Education Courses

- General Education and Professional Education Courses listed above
- Courses should be taken from the following areas in the recommended sequence (see adviser):

Area 1

5550:102	Fitness and Contemporary Activities	2
5550:308	Dance and Tumbling	2

Area 2 Choose at least four credits from the following:

5550:204	Soccer and Swimming	2
5550:205	Basketball and Track/Field	2
5550:306	Badminton and Golf	2
5550:307	Tennis and Volleyball	2

Area 3 (all 5550: and 5560 courses in this Area required for admission to College of Education)

3100:208	Human Anatomy and Physiology	4
	and	
3100:209	Human Anatomy and Physiology	4
5550:130	Physical Education Activities for Children	2
5550:193	Orientation to Teaching Physical Education*	3
5550:195	Concepts of Games and Play	2
5550:201	Kinesiology	3
5550:202	Diagnosis of Motor Skills	2
5550:203	Measurement and Evaluation in Physical Education	3
5550:211	First Aid and CPR	2
5550:235	Concepts of Motor Development and Learning	3
5550:245	Adapted Physical Education	3
5550:302	Physiology of Exercise	3
5550:335	Movement Experiences for Children	3
5550:345	Instructional Techniques for Children in Physical Education	3
5550:346	Instructional Techniques: Secondary Physical Education	3
5550:450	Organization and Administration of Physical Education, Intramurals, and Athletics	3
5550:452	Foundations of Physical Education	3
5560:454	Resident Outdoor Education	2

Additional 5550 courses are offered but **not required** for certification

Secondary School (7-12) Certification

Courses required for secondary certification include all of the requirements for Provisional Special (Pre-K-12) Certification (listed previously) except: 5550:130, 335, and 345.

Students seeking a degree in Physical Education may opt to take additional course work which would lead to an area of concentration in one of the following groups:

I. Psychological Sciences

3100: 465	Advanced Cardiovascular Physiology	3
3100:469	Respiratory Physiology	3
3150:203	Nutrition Biochem	3
(Add Practicum, 11 hours)		**Total 9**

II. Sport Management

6500:301	Management: Principles & Concepts	3
6500:302	Introduction to Organ Behavior	3
5500:420	Sports Management	3
(Add Practicum, 11 hours)		**Total 9**

III. Sports Marketing

6600:300	Marketing Principles	3
6160:301	Essentials of Promotion	3
2420:211	Basic Accounting	3
(Add Practicum, 11 hours)		**Total 9**

IV. Computerization

2440:120	Computer & Software Fundamentals	3
2440:121	Introduction to Programming Logic	3
2440:131	Introduction to Programming	3
(Add Practicum, 11 hours)		**Total 9**

V. Sport Coaching/Strength Conditioning

5500:462/562	Legal Aspects Physical Activities	2
5500:409	Human Dynamics of Sport & Exercise	3
5500:350	Principles of Coaching	3
5500:352	Strength & Conditioning Fundamentals	3
(Add Practicum, 9 hours)		**Total 11**

VI. Outdoor Leadership

5560:440	Introduction to Outdoor Pursuits	3
5560:458	Organizing and Administrating Outdoor Pursuits	3
5560:462	Adventure Therapy	3
5560:464	Wilderness Education Association Outdoor Leadership	3
5560:206	Orienteering	1
5560:207	Introduction to Rock Climbing	1
5560:208	Backpacking	1
5560:209	Flatwater Canoe Tripping	1
(Add Practicum, 4-11 hours)		**Total 9**

5570: Health Education

Pre-K-12 Health Education

- See 5550 Physical Education for General Studies and Professional Education requirements
- Courses should be taken in the recommended sequence (see adviser):

2260:240	Chemical Dependency I	3
3100:130	Principles of Microbiology	3
3100:208	Human Anatomy and Physiology	4
	and	
3100:209	Human Anatomy and Physiology	4
3850:100	Introduction to Sociology	4
5300:325	Content Reading in Secondary Schools	3
5550:211	First Aid and CPR	2
5550:302	Physiology of Exercise	3
5570:101	Personal Health	2
5570:201	Foundations in Health Education	3
5570:202	Stress, Life Style, and Your Health	3
5570:320	Community Health	2
5570:322	Current Topics in Health Education	3
5570:323	Methods and Materials of Teaching Health Education	3
5570:350	Measurement and Evaluation in Health Education	3
5570:395	Field Experience in Health Education	1-3

* Required for admission to College of Education.

\# These courses are not required of Athletic Training for Sports Medicine (NATA/non-NATA)

1 Take these courses together

2 Take these courses together

		Credits
5570:400	Environmental Health	3
5570:421	Comprehensive School Health	4
5570:460	Practicum in Health Education	2
5570:497	Independent Study	1-2
7400:133	Nutrition Fundamentals	3
	Elective(s) (see adviser)	3

Additional 5570 courses are offered but **not required** for certification

Secondary Health Education (7-12)

Courses required for certification in secondary school health education include all of the requirements for Provisional Special (pre-K-12) Certification in Health Education (listed previously) except: 5570:460 and 497.

Students seeking a degree in Health Education may opt to take additional course work which would lead to an area of concentration in one of the following groups:

I. Psychological Sciences

3100: 465	Advanced Cardiovascular Physiology	3
3100:469	Respiratory Physiology	3
3150:203	Nutrition Biochem	3
(Add Practicum, 11 hours)		**Total 9**

II. Sport Management

6500:301	Management: Principles & Concepts	3
6500:302	Introduction to Organ Behavior	3
5500:420	Sports Management	3
(Add Practicum, 11 hours)		**Total 9**

III. Sports Marketing

6600:300	Marketing Principles	3
6160:301	Essentials of Promotion	3
2420:211	Basic Accounting	3
(Add Practicum, 11 hours)		**Total 9**

IV. Computerization

2440:120	Computer & Software Fundamentals	3
2440:121	Introduction to Programming Logic	3
2440:131	Introduction to Programming	3
(Add Practicum, 11 hours)		**Total 9**

V. Sport Coaching/Strength Conditioning

5500:462/562	Legal Aspects Physical Activities	2
5500:409	Human Dynamics of Sport & Exercise	3
5500:350	Principles of Coaching	3
5500:352	Strength & Conditioning Fundamentals	3
(Add Practicum, 9 hours)		**Total 11**

VI. Outdoor Leadership

5560:440	Introduction to Outdoor Pursuits	3
5560:458	Organizing and Administrating Outdoor Pursuits	3
5560:462	Adventure Therapy	3
5560:464	Wilderness Education Association Outdoor Leadership	3
5560:206	Orienteering	1
5560:207	Introduction to Rock Climbing	1
5560:208	Backpacking	1
5560:209	Flatwater Canoe Tripping	1
(Add Practicum, 4-11 hours)		**Total 9**

School Nurse Certification

The provisional school nurse's certificate will be issued to the holder of a bachelor's degree from an approved college or university, provided the pattern of preparation leading to the degree conforms to the following requirements:

- R.N. License
- Acceptance into the College of Education
- Coursework well distributed over the following areas:
  - — Community Health
  - — Family Counseling
  - — Mental and Emotional Health, Current Topics in Health Education
  - — Methods of Teaching/Instructional Design
  - — Learner and Learning processes
  - — Evaluation and Measurement of Learning
  - — Principles, Organization and Administration of School Health Services
- A supervised school nurse experience in an approved school setting to approximate the school day for a period not less than one full semester.

To satisfy the above requirements, an applicant must complete at least the following courses or their equivalents:

		Credits
5570:320	Community Health	2
5570:323	Methods and Materials of Teaching Health Education	3
5570:421	Comprehensive School Health	4
At least (8) eight credits from the following:		
2250:240	Chemical Dependency	3
7400:201	Courtship, Marriage and Family Relationships	3
5570:101	Personal Health	2
5570:202	Stress, Life Style and Your Health	3
5570:263	Measurement and Evaluation in Physical Education	3
5570:322	Current Topics in Health Education	3
5570:400	Environmental Health	3
5550:490/590	Workshops in Current Health Education Topics *(Maximum 4 credits)*	2-4
And one of the following:		
5550:495	Student Teaching for Health Education	10
	or	
5550:460	Practicum in Physical Education	6
	or	
	Equivalent of two years experience as a school nurse	
TOTAL		23-27

Note: Students must take a minimum of six credits in the department (5550/5570). This does not include 5550:495 or 5550:460.

Certification in Dance (Pre-K-12)

- See 5550: Physical Education for General Education requirement and Professional Education courses listed previously
- Courses should be taken in the recommended sequence (see adviser):

5300:325	Content Reading in Secondary Schools	3
7500:100	Fundamentals of Music	2
7900:115	Dance as an Art Form	2
7910:101-111	Dance Organization	1
7910:101-111	Dance Organization	1
7910:101-111	Dance Organization *(Enrollment in Dance Organization by audition only)*	1
7910:108	Choreographers' Workshop	1
7910:112	Dance Production Ensemble	1
7920:116	Physical Analysis for Dance I	2
7920:117	Physical Analysis for Dance II	2
7920:222	Ballet VI: Advanced Intermediate Technique *(Enrollment by audition only)*	5
7920:316	Choreography I	2
7920:317	Choreography II	2
7920:320	Dance Notation	2
7920:328	Modern Dance VII: Advanced Modern Dance A *(Enrollment by audition only)*	3
7920:351	Jazz Dance Styles *(Enrollment by audition only)*	2
7920:361	Learning Theory for Dance	2
7920:362	Instructional Strategies for Dance	2
7920:416	Choreography III	2
7920:417	Choreography IV	2
Choose one History:		
7920:431	Dance History: Prehistory - 1661	2
7920:432	Dance History: 1661 Through Diaghilev Era	2
	or	
7920:433	Dance History: 20th Century	2
7920:461	Seminar and Field Experience in Dance Education	2
7920:462	Professional Issues in Dance Education	2
	Electives (see adviser)	4

Adapted Physical Education (Validation)

A validation of an existing Ohio Standard Physical Education certificate may be granted upon successful completion of the following courses:

5550:395	Field Experience (at least two credits required)	1-3
5550:436	Foundations and Elements of Adapted Physical Education	3
5550:451	Assessment and Evaluation in Adapted Physical Education	3
5550:455	Motor Development of Special Populations	3
5550:497	Independent Study (at least two credits required)	1-2
5610:440	Developmental Characteristics of Exceptional Individuals	3
5610:465	Neuromotor Aspects of Physical Disabilities	3
5610:467	Classroom Behavior Management of Exceptional Individuals	3

Athletic Training for Sports Medicine@

NATA Program

To be eligible to take the National Athletic Trainer's Association (NATA) certification test, the student must complete a course of study at The University of Akron and compile at least 1,500 hours of practical field and clinical experiences.

- See 5550: General Education requirements listed previously
- Courses should be taken in the recommended sequence (see adviser):

@ Students interested in this program should contact the head athletic trainer.

		Credits
2740:120	Medical Terminology	3
3100:130	Principles of Microbiology	3
3100:208, 209	Human Anatomy and Physiology	8
3150:110, 111	Introduction to General, Organic and Biochemistry I, Lab	4
3150:112, 113	Introduction to General, Organic and Biochemistry II, Lab	4
3750:100	Introduction to Psychology	3
3750:230	Developmental Psychology	4
3850:100	Introduction to Sociology	4
5550:150	Concepts of Health and Fitness	3
5550:201	Kinesiology	3
5550:202	Diagnosis of Motor Skills	3
5550:211	First Aid and CPR	2
5550:240	Care and Prevention of Athletic Injuries	3
5550:245	Adapted Physical Education	3
5550:302	Physiology of Exercise	3
5550:395	Field Experience	3
5550:441	Advanced Athletic Injury Management	4
5550:442	Therapeutic Modalities and Equipment in Sports Medicine	3
5550:450	Organization and Administration of Physical Education, Intramurals, and Athletics	3
5550:460	Practicum in Physical Education	3
5550:460	Practicum in Physical Education	4
5550:475	Seminar in Health and Physical Education	3
5550:480	Special Topics: Pharmacology for Sports	3
5550:497	Independent Study	2
5570:202	Stress, Life-Style, and Your Health	3
7400:133	Nutrition Fundamentals	3
7400:487	Sports Nutrition	3

- Select at least (9) nine credits from the following electives. The elective courses must first be approved by adviser.

2260:240	Chemical Dependency	3
3100:112	Principles of Biology	4
3100:461	Human Physiology	3
3100:462	Human Physiology	3
3100:465	Advanced Cardiovascular Physiology	3
3650:261	Physics for Life Sciences	4
3650:262	Physics for Life Sciences	4
5550:xxx	Sports Medicine Workshops	1-3
5550:xxx	Physical Education Workshops	1-3
5570:xxx	Health Education Workshops	1-3

Students not seeking teacher certification are exempt from the PPST for admission.

Sport and Exercise Science

- The following are required in the recommended sequence (see adviser):

2740:120	Medical Terminology	3
3100:208, 209	Human Anatomy and Physiology	8
3150:110, 111	Introduction to General, Organic and Biochemistry I, Lab	4
3750:100	Introduction to Psychology	3
3750:230	Developmental Psychology	4
3850:100	Introduction to Sociology	4
5550:150	Concepts of Health and Fitness	3
5550:201	Kinesiology	3
5550:202	Diagnosis of Motor Skills	3
5550:203	Measurement & Evaluation in Physical Education	3
5550:211	First Aid and CPR	2
5550:235	Concepts of Motor Learning and Development	3
5550:300	Physiology of Exercise for Adult and Elderly	2
5550:240	Care and Prevention of Athletic Injuries	3
5550:245	Adapted Physical Education	3
5550:302	Physiology of Exercise	3
5550:320	Community Health	3
5550:395	Field Experience	3
5550:403	Exercise Testing	3
5550:404	Exercise Prescription	3
5550:450	Organization and Administration of Physical Education, Intramurals, and Athletics	3
5550:480	Special Topics: Pharmacology for Sports	3
5570:101	Personal Health	2
5570:202	Stress, Life-Style, and Your Health	3
7400:133	Nutrition Fundamentals	3
7400:487	Sports Nutrition	3

- Select 21-22 credits from the following electives. The electives must first be approved by adviser.

2420:211	Basic Accounting	3
2440:120	Computer and Software Fundamentals	3
2440:121	Introduction to Programming Logic	3
2440:131	Introduction to Programming	3
3100:465	Advanced Cardiovascular Physiology	3
3100:469	Respiratory Physiology	3
3150:203	Nutritional Biochemistry (Prerequisite: 3150:129)	3
5550:2XX	Physical Education Activities	2
5550:350	Principles of Coaching	3
5550:352	Strength and Conditioning Fundamentals	3
5550:409	Human Dynamics of Sport and Exercise	3
5550:420	Sports Management	3
5550:460	Practicum in Physical Education	3-6
6160:301	Essentials of Promotion	3
6500:301	Management: Principles and Concepts	3
6660:300	Marketing Principles	3

Reminder: All students pursuing teacher education programs at The University of Akron are subject to the selective admission and retention requirements. Criteria and procedures are available in the Office of the Dean, College of Education, Zook Hall 210, The University of Akron, Akron, OH 44325, (330) 972-5188.

5610: Special Education

Intervention Specialist for Mild/Moderate Educational Needs

This program is designed to meet the standards for the State of Ohio teaching license for Intervention Specialist for Mild/Moderate Educational Needs. Students completing this program will be prepared to work as an Intervention Specialist with students who have mild/moderate educational needs. The program consists of 45 hours of General Education requirements, 21 hours of Teaching Education core requirements, 43 hours of Special Education core requirements and 19 hours of Intervention Specialist for Mild/Moderate Educational Needs program requirements. The total program requires 128 hours; there are no elective hours in the program.

- General Education — 45 credits

English Composition Component:		
3300:111	English Composition I*	4
3300:112	English Composition II*	3
Mathematics Component:		
3450:145	College Algebra*	4
Natural Science Component:		
3150:110	General, Organic & Biochemistry I*	4
3100:265	Introduction to Human Physiology*	4
Oral Communication Requirement:		
7600:105	Introduction to Public Speaking *	
	or	
7600:106	Effective Oral Communication*	3
Physical Education Component:		
5550:211	First Aid & CPR	2
Social Science Component:		
3850:100	Introduction to Sociology*	4
3750:100	Introduction to Psychology*	3
Humanities Component:		
3400:210	Humanities in Western Tradition	4
7100:210	Visual Arts Awareness	
	or	
7500:201	Exploring Music: Bach to Rock	3
Plus one other Humanities course		
	see General Education options	3
Area Studies/Cultural Diversity Component:		
	see General Education options	4

- Teacher Education Core — 21 credits

5050:210	Characterisitcs of Learners	3
5050:211	Teaching & Learning Strategies	3
5050:310	Instructional Design	3
5050:311	Instructional Resources	3
5050:320	Diversity in Learners	3
5050:330	Classroom Management	3
5050:410	Professional Issues in Education	3

*Required for admission to the College of Education. Total of 29 credits.

- Special Education Core — 43 credits

		Credits
7400:265	Child Development	3
5200:245	Understanding Language Literacy	3
5200:345	Teaching Phonics in Language Literacy	4
5200:325	Teaching Phonics in Language Literacy Field Experience	2
5200:342	Teaching Early Childhood/Middle Level Math	3
5610:440	Developmental Characteristics of Exceptional Individuals	3
5610:450	Special Education Programming: Early Childhood	3
5610:452	Special Education Programming: Secondary/Vocational	3
5610:459	Collaboration & Consultation in Schools and Community	3
5610:460	Family Dynamics & Commmunications	3
5610:463	Assessment in Special Education	3
5610:467	Management Strategies in SpEd	3
5610:470	Practicum in Special Education	3
5610:403	Student Teaching Colloquium	1
7700:430	Normal Language Development	3

- Specialization — 19 credits

5610:447	Developmental Characteristics: Mild/Moderate	4
5610:451	Special Education Programming: Mild/Moderate I	3
5610:457	Special Education Programming: Mild/Moderate II	4
5610:486	Student Teaching: Mild/Moderate	8

Intervention Specialist for Moderate/Intensive Educational Needs

This program is designed to meet the standards for the State of Ohio teaching license for Intervention Specialist for Moderate/Intensive Educational Needs. Students completing this program will be prepared to work as an Intervention Specialist with students who have moderate/intensive educational needs. The program consists of 45 hours of General Education requirements, 21 hours of Teaching Education core requirements, 43 hours of Special Education core requirements and 23 hours of Intervention Specialist for Mild/Moderate Educational Needs program requirements. The total program requires 132 hours; there are no elective hours in the program.

- General Education — 45 credits:

English Composition component:		
3300:111,112	English Composition I,II*	7
Mathematics component:		
3450:145	College Algebra*	4
Natural Science Component:		
*3150:110	General, Organic & Biochemistry I	4
*3100:265	Introduction to Human Physiology	4
Oral Communication Requirement:		
*7600:105	Introduction to Public Speaking	3
	or	
*7600:106	Effective Oral Communication	3
Physical Education Component:		
5550:211	First Aid & CPR	2
Social Science Component:		
*3850:100	Introduction to Sociology	4
*3750:100	Introduction to Psychology	3
Humanities Component:		
3400:210	Humanities in Western Tradition	4
7100:210	Visual Arts Awareness	3
	or	
7500:201	Exploring Music: Bach to Rock	3
	Plus one other Humanities course	
	See General Education under University College for options	3
Area Studies/Cultural Diversity component:		
	See General Education under University College for options	4

- Teacher Education Core — 21 credits:

5050:210	Characteristics of Learners	3
5050:211	Teaching and Learning Strategies	3
5050:310	Instructional Design	3
5050:311	Instructional Resources	3
5050:320	Diversity in Learners	3
5050:330	Classroom Management	3
5050:410	Professional Issues in Education	3

*Required for admission to the College of Education. Total of 29 credits.

- Special Education — 43 credits:

		Credits
7400:265	Child Development	3
5200:245	Understanding Language Literacy	3
5200:325	Teaching Phonics in Language Literacy Field Experience	2
5200:345	Teaching Phonics in Language Literacy	4
5200:342	Teaching Early Childhood/Middle Level Math	3
5610:440	Developmental Characteristics of Exceptional Individuals	3
5610:450	Special Education Programming: Early Childhood	3
5610:452	Special Education Programming: Secondary/Vocational	3
5610:459	Collaboration & Consultation in Schools and Community	3
5610:460	Family Dynamics & Communication	3
5610:463	Assessment in Special Education	3
5610:467	Management Strategies in Special Education	3
5610:470	Practicum in Special Education	3
5610:403	Student Teaching Colloquium	1
7700:430	Normal Language Development	3

- Specialization — 23 credits:

7700:101	Beginning Sign Language	3
5610:453	Special Education Programming: Moderate/Intensive I	4
5610:454	Special Education Programming: Moderate/Intensive II	4
5610:448	Developmental Characteristics of Individuals Moderate/Intensive Educational Needs	4
5610:487	Student Teaching: Moderate/Intensive Educational Needs	8

5630: Bilingual Multicultural Education

This program provides education majors with the knowledge, skills and attitudes necessary to teach bilingual students. The program incorporates course work in the history and philosophy of bilingual multicultural education, linguistics, English as a second language instruction, culture and theories and practices for teaching bilingual students language arts, reading, mathematics, social studies and science.

Students may become validated in bilingual multicultural education at either the undergraduate or graduate levels in conjunction with certification in elementary education, secondary education, special education or physical education. Students must demonstrate proficiency in English and a language other than English in order to meet the validation requirements of the Ohio State Department of Education.

- Requirements:

3300:489	Seminar in English: Introduction to Bilingual Linguistics	3
5630:482	Characteristics of Culturally Different Youth	3
5630:484	Principles of Bilingual Multicultural Education	3
5630:485	Teaching Reading and Language Arts to Second Language Learners	4
	or	
5630:486	Teaching Mathematics, Social Studies and Science to Bilingual Students	4
5630:487	Techniques for Teaching English as a Second Language in the Bilingual Classroom	4
	Field experience of bilingual classrooms/settings	3

Combination Special Education – Elementary Education Program

The addition of 50-68 special education credits, including student teaching, to the standard elementary education degree program will provide the student with certification in the areas of teaching the developmentally handicapped, specific learning disabled, orthopedically handicapped, severe behavior handicapped or multi-handicapped. Selection of this option will require an extended program or post-baccalaureate study.

Special Education as a Secondary Teaching Field

The addition of 57-71 special education credits, including student teaching, to the professional education courses required of secondary teachers may comprise a second teaching field in developmentally handicapped, specific learning disabled,orthopedically handicapped, severe behavior handicapped or multihandicapped.

Specific details for the above programs with elementary or secondary can be obtained from the Department of Counseling and Special Education.

Speech and Hearing Therapy

Certification in the area of speech and hearing therapy is available to students only as part of a master's degree. Specific program details can be obtained from the Department of Counseling and Special Education and/or the Department of Communicative Disorders.

College of Business Administration

Stephen F. Hallam, Ph.D., *Dean*
James T. Strong, Ph.D., *Associate Dean*
James R. Emore, D.B.A., *Assistant Dean, Undergraduate Programs*

INTRODUCTION

The College of Business Administration (CBA) is a professional college of the University that is dedicated to teaching, business research, and public service. The college is accredited by the American Assembly of Collegiate Schools of Business (AACSB) and offers accredited baccalaureate and master's degree programs during the day, evenings, and weekends.

Mission Statement

The College of Business Administration promotes economic efficiency and the free enterprise system by preparing competent and responsible business leaders through comprehensive educational programs, relevant research, and professional service.

In our free society, effective leaders are indispensable, and effective business leaders are indispensable to the free enterprise system. The CBA educates a vital component of the region's business leaders and has prepared competent and responsible business leaders working throughout the world.

Effective Instruction

The CBA emphasizes effective teaching as the primary means to produce future business leaders. The faculty are strongly committed to being involved with CBA students, and to being accessible to them. The CBA attempts to provide relatively small class sections throughout the curriculum.

Effective teaching includes challenging our students through a variety of teaching methods. The college relies heavily upon case method, seminar presentation, skills performance methods (oral and written), discussion method, and experiential learning in addition to traditional lectures. These methods are used to: 1) involve the students actively in their own education by requiring preparation and performance; 2) instill in students the ability to educate themselves as a lifelong habit; and 3) prepare students to more effectively and quickly bridge the gap to competent business leadership.

In addition, the CBA must provide students with an education in solid management skills (critical thinking, problem analysis and solving, oral and written communications, computing and specific functional competencies), people skills (compassion, self-confidence, tolerance), and ethical values (responsibility and the ability to withstand the daily pressures of management without succumbing to personal interest). Exposure to business practitioners—in and out of the classroom—assists in achieving these goals. The CBA must introduce students to a basic understanding of professionalism, public service responsibilities, and the role of business in society. This requires that students develop a respect for learning and a preference for solutions that advance the public good. Further, the CBA emphasizes creativity, open-mindedness, and diverse cultural perspectives.

Since the college's inception, the college curriculum has been designed with equal emphasis on broad basic theoretical principles as well as immediate applied practices. Classroom knowledge is consistently made more significant by visits to businesses, the college's excellent tradition of student organizations, guest speaker programs, and other efforts to bring students and business people closer together.

COLLEGE REQUIREMENTS

Requirements for Admission

The College of Business Administration will admit students who have completed at least 40 semester hours of credit, who meet the academic performance requirements established by the faculty of the College, and who file an application for transfer.

Academic Performance Requirements:

- Complete the following coursework or equivalent as part of the 40-hour requirement:
  - 3450:141 Algebra with Business Applications or 3450:145 College Algebra
  - a behavioral science course
  - 3250:200 Principles of Microeconomics or 3250:201 Principles of Macroeconomics
  - 6200:201 Accounting Concepts and Principles for Business
- Earn at least a 2.30 overall grade-point average
- Earn at least a 2.00 grade-point average in business administration and economics courses.

Transfer Students

Transfer students and students using intercollege transfer from degree-granting colleges must satisfy the following admission requirements:

- Complete at least 40 semester hours of credit
- Earn at least a 2.30 overall grade-point average
- Earn at least a 2.00 grade-point average in business administration and economics courses.

Refer to the transfer students section under **Other Admissions** below.

Other Admissions

Students accepted into the University Honors Program as business majors are automatically admitted to the College of Business Administration. Incoming freshman with appropriate credentials may receive **direct admission** to the College upon application (see University Admissions in **Section Three**).

University of Akron Students who meet all criteria for admission to the College of Business Administration, except the 2.3 grade-point average, are encouraged to apply for admission on an individual case basis. In these circumstances, an admission committee will consider a number of factors for the student's benefit, including: grades in the most recent course work, grades received in pre-business courses, ACT/SAT scores, and the difficulty of a previous major. Through the consideration of these indicators, students with a good probability of success in the College of Business Administration may be admitted. Application forms and procedures may be obtained from the College Office of Undergraduate Advising, located in Room 412 of the Business Administration Building. Telephone information is available at (330) 972-7040.

Transfer students from other colleges and universities, including other degree-granting colleges within The University of Akron system, must meet the same grade-point average and credit-hour standards as University of Akron students. Transfer students who have not completed the course work listed under the Academic Performance Requirements will be conditionally admitted until the end of the semester one calendar year from the date of entrance into the program. Unconditional admission will be dependent upon successful completion of all course work required for admission into the College of Business Administration. In the event the student fails to complete all course work requirements within the calendar year, the student will be suspended from the College of Business Administration until all required course work has been successfully completed.

Transfer of Courses and Advanced Standing

Some courses taken outside of the University College or the College of Business Administration may be accepted in lieu of college and departmental requirements. The College of Business Administration will consider the following in determining whether or not to grant credit: the content, complexity and grading standards of courses taken elsewhere and the suitability of courses taken elsewhere for the program of study chosen here.

Transfer students from community and technical colleges are welcome. Students are encouraged to contact The University of Akron Office of Transfer and Articulation for information on transfer acceptance as soon as they have any intention of pursuing a baccalaureate degree, and preferably before completion of the two-year program.

Continuation of the Baccalaureate Program

Academic Probation

A CBA student shall be subject to academic probation if any one of the following three conditions exists:

- The accumulated GPA for all courses is less than 2.0; or
- The accumulated GPA for all CBA and Economics courses is less than 2.0; or
- The accumulated GPA in the major is less than 2.0.

Degrees

The College of Business Administration, organized on a departmental basis,offers programs of study in accounting, business administration, finance, management, marketing, sales, advertising and international business. Seven baccalaureate degrees are offered: the Bachelor of Science in Accountancy, the Bachelor of Science in Business Administration, the Bachelor of Science in Industrial Management, the Bachelor of Science in Business Administration/Finance, the Bachelor of Science in Business Administration/Marketing, the Bachelor of Science in Business Administration/Advertising and the Bachelor of Science in Business Administration/International Business.

Requirements for Graduation

To receive a baccalaureate degree from the College of Business Administration, a student must meet the following requirements:

- Complete a minimum of 128 semester credits with a minimum 2.00 grade-point average. No more than two credits of physical education courses may be applied toward CBA degree requirements.
- At least 50 percent of the credits for graduation must be outside the College of Business Administration (6 credits in Quantitative Business Analysis I and II may be counted in the requirement for 50 percent outside the CBA).
- After transfer into the College of Business Administration, students may take any courses for free elective credit, except those courses which would be duplicative or significantly overlap any pre-business or CBA course.
- Obtain at least a 2.00 grade-point average for courses in the major as well as for courses in business administration and economics.
- At least 50 percent of the business credit hours required for a business degree must be earned at The University of Akron, including a minimum of 14 credits in the student's major program.
- Receive admission to the College of Business Administration and earn at least 15 credits within the college after admission is granted.
- Obtain the recommendation of the department faculty in the student's primary major.
- Complete other University requirements listed in **Section 3** of this Bulletin.

- General Education requirement of 42 credits, including:

		Credits
3250:200	Principles of Microeconomics	3
Either of the following two sequences of mathematics:*		
3450:145	College Algebra	4
	and	
3450:215	Concepts of Calculus I**	4
	OR	
3450:141	Algebra with Business Applications	3
	and	
3450:210	Calculus with Business Applications	3
One course chosen from psychology or sociology.(3870:150 can substitute for 3850:100)		3

- Complete the following core program in business and economics:

Accounting Majors:		
6200:255	Information Processing	3
Non-Accounting Majors:		
6200:250	Computer Applications for Business	3
All Majors:		
3250:201	Principles of Macroeconomics	3
6200:201	Accounting Concepts and Principles for Business	3
6200:202	Managerial Accounting	3
6400:220	Legal and Social Environment of Business#	3
	or	
6400:321,2	Business Law I, II#	6
6400:371	Business Finance	3
6500:221	Quantitative Business Analysis I	3
6500:222	Quantitative Business Analysis II	3
6500:301	Management: Principles and Concepts	3
6500:330	Principles of Operations Management	3
6500:490	Business Policy	3
6600:300	Marketing Principles	3
6800:305	International Business	3

Minor Areas of Study

For an explanation of minor areas of study in the College of Business Administration, see **Section 5** of this Bulletin.

Certificate Programs

The College of Business Administration offers certificate programs in Entrepreneurship, Professional Selling, and Retail Marketing, which are described in **Section 6** of this Bulletin.

Cooperative Education Program

The requirements for the College of Business Administration's Cooperative Education Program are as follows:

- Attain college admissions status.
- Complete 3250:200, 201 and 6200:201, 202 with at least a 2.00 grade-point average.
- Apply for participation in the program through the college's director of Cooperative Education.

Three 15-week employment experiences are required, with no more than one work period in a summer. The work experience must relate to the business administration area.

* During the phase-in of these courses, students who have completed 3450:145 College Algebra (4 credits) may complete 3450:210 Calculus with Business Applications to satisfy their requirement.

** Students contemplating and/or committed to going on to graduate school are recommended to complete 3450:215 Concepts of Calculus I.

\# Accountancy majors take 6400:321,2 or 6400:220. Other majors take 6400:220.

PROGRAMS OF INSTRUCTION

6100: General Business

The Bachelor of Science in Business Administration (BSBA) program does not include a major per se. Instead, students complete the CBA core courses and two courses from each of the four departments in the college. This degree program is intended to offer flexibility to the student. Some students who intend to pursue careers in small business management, whether by creating or acquiring a business, or perhaps taking over a family business enterprise, may find the flexibility of this degree program best for them. Other students with more administrative experience may also prefer the larger course selection offered by this degree program.

For additional information, students should direct questions to the Director of CBA Undergraduate Programs.

6200: Accountancy

The accountancy curriculum in the George W. Daverio School of Accountancy is designed to prepare the student for professional service, including sitting for the uniform certified public accounting examination and other professional accounting examinations and to prepare the student to undertake advanced study. The functions of accountancy are essential to the decision-making process in commerce, industry and government. Because of the important role it plays in economic affairs, accountancy has attained the professional status of law and medicine.

The three major fields of employment for accountants are public, private and governmental accounting. Regardless of the areas of concentration, standards, ethics and the mastery of accounting concepts and procedures are essential. An accounting graduate who chooses public accounting may become a senior manager, principal or partner in public accounting firms. A student who chooses an accounting career in private industry may hold the position of accountant, cost accountant, senior accountant, budget director, internal auditor, treasurer or controller. Federal, state and local governments provide a wide variety of job opportunities at the professional level for well-educated accountants. There are exceptional opportunities for professional advancement regardless of the type of institution a graduate may choose.

To receive the Bachelor of Science in Accounting degree from the George W. Daverio School of Accountancy, a student must complete the college requirements and the following School requirements:

		Credits
3300:275	Specialized Writing: Business	3
6200:200	Professional Orientation	1
6200:301	Cost Accounting	3
6200:320	Accounting Cycles and Financial Statements	3
6200:321	Intermediate Accounting I	3
6200:322	Intermediate Accounting II	3
6200:430	Taxation I	3
6200:440	Auditing	3
6200:454	Information Systems	3
6200:460	Advanced Managerial Accounting	3
6200:xxx	Accounting Electives	6
		34

Communication skills are vital, so a student majoring in Accounting is encouraged to participate in the Student Toastmasters organization.

6400: Finance

The primary mission of the Department of Finance is to provide a quality education to students that will prepare them for leadership positions within the finance profession in business and government. Students acquire financial knowledge and skills that can be applied in a variety of environments. The study of finance prepares students to understand the financial transactions in today's global economy. Careers in finance include corporate finance, investment management, financial markets and institutions, and personal financial services.

Careers in corporate finance include financial analyst positions in manufacturing, commercial, and service enterprises where initial assignments might include financial planning, capital expenditure analysis, cash management, credit management, lease evaluation, mergers and acquisitions, and special projects. Students with an interest in investment management are trained for careers as account executives, security analysts, or portfolio managers in bank trust departments, securities brokerage firms, investment research firms, and investment banks. Careers in financial markets and institutions are available in banking, mutual funds, insurance companies, and other financial institutions. Banking careers include commercial lending, retail banking, treasury operations, trading, and trust operations. The rapidly expanding financial services field includes careers in personal financial planning, real estate, and insurance.

The finance curriculum offers students the opportunity to study in one of two specific areas of specialization – Corporate Financial Management and Financial Services. Students in the Financial Services program may also achieve a Concentration in Real Estate.

To receive a Bachelor of Science in Business Administration/Finance degree, the student must successfully complete one or the other of these 25-credit-hour programs:

Corporate Financial Management Program

All finance majors must complete four required major (core) courses with an average grade of "C" over the four courses. In addition, students in the Corporate Financial Management Program must complete five additional courses, one required and four electives:

- Finance Core:

		Credits
6400:290	Career Planning and Analysis	1
6400:338	Financial Markets and Institutions	3
6400:343	Investments	3
6400:379	Advanced Business Finance	3

- Required:

6400:485	Financial Strategy	3
		13

- Electives:

Select four elective courses (three must be 6400 courses) totaling at least 12 credits from the following:

6400:403	Real Estate Finance	3
6400:415	Risk Management and Insurance	3
6400:436	Commercial Bank Management	3
6400:447	Security and Portfolio Analysis	3
6400:473	Financial Statement Analysis	3
6400:475	Commercial and Consumer Credit Management	3
6400:481	International Business Finance	3
6400:490	Selected Topics in Finance	1-3
6400:495	Internship in Finance	1-3
6400:497	Honors Project	1-3
6200:301	Cost Accounting	3
6200:320	Accounting Cycles and Financial Statements	3
		12

Total credits required: 25

Financial Services Program

All finance majors must complete four required major (core) courses with an average grade of "C" over the four courses. In addition, students in the Financial Services Program must complete at least five (5) courses (at least 15 credits) from those listed below:

- Finance Core:

		Credits
6400:290	Career Planning and Analysis	1
6400:338	Financial Markets and Institutions	3
6400:343	Investments	3
6400:379	Advanced Business Finance	3
		10

- Select at least five courses (at least 15 credits) from the following:

6400:323	International Business Law	3
6400:325	Business and Society	3
6400:332	Personal Financial Planning	3
6400:390	Real Estate Principles: A Value Approach	3
6400:401	Real Estate Investment	3
6400:402	Income Property Appraisal	3
6400:403	Real Estate Finance	3
6400:413	Property and Liability Insurance	3
6400:414	Life and Health Insurance	3
6400:415	Risk Management and Insurance	3
6400:424	Legal Concepts of Real Estate: A Managerial Approach	3
6400:436	Commercial Bank Management	3
6400:447	Security and Portfolio Analysis	3
6400:473	Financial Statement Analysis	3
6400:475	Commercial and Consumer Credit Management	3
6400:481	International Business Finance	3
6400:485	Financial Strategy	3
6400:490	Selected Topics in Finance	1-3
6400:495	Internship in Finance	1-3
6400:497	Honors Project	1-3
6200:410	Taxation for Financial Planning	3
		15

Total credits required: 25

Financial Services Program – Real Estate Concentration

A finance major completing the Financial Services Program with at least three of the five courses below (9 credits) will be awarded a Concentration in Real Estate:

		Credits
6400:390	Real Estate Principles: A Value Approach*	3
6400:401	Real Estate Investment	3
6400:402	Income Property Appraisal*	3
6400:403	Real Estate Finance*	3
6400:424	Legal Concepts of Real Estate: A Managerial Approach*	3

6500: Management

The University of Akron was one of the first institutions of higher learning to establish an industrial management curriculum. Important factors in the decision to establish such a program were the location of the University in a major industrial area and the recognition of an emerging educational need.

The emphasis on education for management is the result of several factors. First, managers are becoming increasingly aware that a professional approach to management requires understanding of quantitative methods, the behavioral sciences and the use of computers. Second, the management task is becoming much more complex in terms of the number of activities, volume of work and the broader impact of managerial decisions. Third, the practice of management in any setting requires a measure of specific preparation and qualification.

Events of the past several years have brought about a rapid and sweeping change in the business and industry of our society. The major in industrial management reflects the complex directional problems of firms involved in manufacturing and/or service in a highly competitive and interactive global economy. The curriculum is designed to provide the student with a solid foundation in management. It also allows the student to emphasize a specific area of study by pursuing one of the management options.

The graduate with an industrial management degree finds many employment opportunities with firms in staff, supervisory and other management positions. The graduate possesses, in addition, the required basic understanding for effectively managing facilities, equipment, information and personnel in a variety of activities such as transportation, manufacturing, warehousing, research or institutional management. Also, the graduate has the fundamental preparation to undertake advanced study leading to a master's degree.

To receive the Bachelor of Science in Industrial Management with a major in management, a student must complete the common college Requirements for Graduation, and the requirements of one of the six options listed below:

Human Resource Management Option

Option Requirements:

		Credits
6500:200	Career Orientation: Management	1
6500:310	Business Information Systems	3
6500:341	Human Resource Management	3
6500:342	Labor Relations	3
6500:442	Compensation Management	3
6500:443	Advanced Human Resource Management	3
6500:471	Management Project	3
6500:xxx	Management Elective	3
		22

Production/Operations Management Option

Option Requirements:

6500:200	Career Orientation: Management	1
6500:310	Business Information Systems	3
6500:333	Production and Operations Analysis	3
6500:341	Human Resource Management	3
6500:433	Business Operational Planning	3
6500:434	Production Planning and Control	3
6500:435	Quality Control	3
6500:471	Management Project	3
6500:xxx	Management Elective	3
		25

Materials Management Option

Option Requirements:

		Credits
6500:200	Career Orientation: Management	1
6500:310	Business Information Systems	3
6500:333	Production and Operations Analysis	3
6500:341	Human Resource Management	3
6500:434	Production Planning and Control	3
6500:435	Quality Control	3
6500:471	Management Project	3
6600:370	Purchasing	3
6600:415	Business Logistics	3
6500:xxx	Management Elective	3
		28

Industrial Accounting Option'

Option Requirements:

6500:200	Career Orientation: Management	1
6500:310	Business Information Systems**	3
6500:333	Production and Operations Analysis	3
6500:341	Human Resource Management	3
6500:433	Business Operational Planning	3
6500:434	Production Planning and Control	3
6500:435	Quality Control	3
6500:471	Management Project	3
6200:301	Cost Accounting	3
6200:460	Advanced Managerial Accounting	3
		28

Information Systems Management Option

Option Requirements:

6500:200	Career Orientation: Management	1
6500:310	Business Information Systems	3
6500:324	Data Management for Information Systems	3
6500:325	Analysis and Design of Information Systems	3
6500:333	Production and Operations Analysis	3
6500:341	Human Resource Management	3
6500:425	Decision Support and Expert Systems	3
6500:471	Management Project	3
6500:xxx	Management Elective	3
		25

6600: Marketing

Marketing is concerned with exchange – the process by which individuals or organizations provide or receive anything of value. The American Marketing Association defines marketing as "the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services to create exchanges that satisfy individual and organizational objectives." While marketing was traditionally considered a business function actively practiced only by for-profit corporations, it is now generally accepted that a marketing perspective and the use of marketing techniques can improve the operation of any organization, including not-for-profit organizations, government agencies, and other groups and individuals who were not historically thought to be among the users of marketing concepts and practices.

Given the rather broad and encompassing view of marketing, it is not surprising that a significant proportion of the workforce is employed in some aspect of the various marketing functions and activities. While job opportunities are diverse, some of the more common areas of employment include retail merchandising and management, product development and planning, physical distribution and logistics, marketing communications and advertising, industrial purchasing, and marketing research. In addition, a significant proportion of marketing graduates launch and pursue very successful careers in professional sales and sales management within the business to business sector of the economy. Consequently, the Department of Marketing offers a specialized major in Sales Management in addition to its major in Marketing Management.

Our majors must meet all requirements of 1) the General Education program, 2) the Pre-Business program, 3) the College of Business Administration Core program, 4) the required courses within each program, and 5) the elective courses within each program.

To receive a Bachelor of Science in Business Administration/Marketing degree, the student must select either the Marketing Management Major or the Sales Management Major and successfully complete one or the other of these 26-credit-hour programs.

* 6400:390, 402, 403 and 424 are accepted by the Ohio Real Estate Commission to satisfy course work necessary for the Ohio License requirement.

** 6200:454 may be substituted for 6500:310

Marketing Management Major

Required:

		Credits
6600:293	Career Orientation	1
6600:460	Marketing Research	3
6600:490	Marketing Strategy	3
6600:493	Career Management	1
6600:xxx	Marketing Electives	18
		26

Marketing Electives may not include: 6600:491 Workshop in Marketing or 6600:499 Independent Study in Marketing.

Sales Management Major

Required. Complete all 17 credits:

6600:293	Career Orientation	1
6600:375	Professional Selling	3
6600:460	Marketing Research	3
6600:475	Business Negotiations	3
6600:480	Sales Management	3
6600:490	Marketing Strategy	3
6600:493	Career Management	1

Electives. Select any nine credits:

6600:350	Advertising	3
6600:355	Buyer Behavior	3
6600:370	Purchasing	3
6600:470	Business To Business Marketing	3
6600:496	Internship in Marketing	3
7600:235	Interpersonal Communications	3
7600:252	Persuasion	3
		26

Marketing Electives may not include: 6600:491 Workshop in Marketing or 6600:499 Independent Study in Marketing.

Advertising

Advertising majors can obtain advertising positions with manufacturers, retailers, service and nonprofit organizations, advertising agencies, advertising specialty houses such as market research firms or with such advertising vehicles as newspapers, magazines, radio or television stations, direct mail operations, and telemarketing firms. While the focus of this program is on advertising (the indirect, impersonal communications carried by a mass medium and paid for by an identified sponsor), students will also explore other elements of the "promotional mix" including sales promotions, publicity, personal selling and visual merchandising. Some of the more frequently obtained advertising positions include media buyer, media planner or supervisor, advertising accounts manager, copywriter and creative director, sales representative, and a host of other entry level positions within the promotions field. Advanced career paths in advertising and promotions would involve managerial responsibilities over the above mentioned positions.

An advertising major must meet all requirements of: (1) the General Education Program, (2) the Pre-Business Program, (3) the College of Business Administration Core Courses Program, (4) the Advertising Major Required Courses Program, and (5) the Advertising Major Elective Courses program.

To receive a Bachelor of Science in Business Administration/Advertising degree, the student must successfully complete the following 23 credit hour program:

- Required:

		Credits
6600:293	Career Orientation	1
6600:350	Advertising	3
6600:355	Buyer Behavior	3
6600:425	Advertising Research And Evaluation	3
6600:430	Promotional Campaigns	3
6600:490	Marketing Strategy	3
6600:493	Career Management	1

- Electives: Complete two courses - 6 credits. At least one of the two electives courses must be selected from 3300, 7100, and/or 7600 fields of study.

3300:390	Professional Writing	3
7100:180	Graphic Design	3
6600:375	Professional Selling	3
6600:385	International Marketing	3
6600:440	Product Planning	3
6600:450	Strategic Retail Management	3
6600:480	Sales Management	3
7600:280	Media Production Techniques	3
7600:282	Radio Production	3
7600:283	Television Production	3
7600:387	Radio And Television Writing	3
7600:486	Broadcasting Sales And Management	3

6800: International Business

The dynamic changes in the world's physical, political, economic, and cultural environments are resulting in threats to the well being of both individuals and organizations, as well as creating totally new market opportunities for business firms and enterprises. The challenge is to effectively compete in the global marketplace as it exists today and develops tomorrow. This academic program views international business in the broad context of all business transactions devised and carried out across national borders to satisfy the organizational and personal goals of firms and individuals. International business studies incorporates all of the functional business operations of accounting, finance, management, and marketing; as such, it is an integrative field of study within an international framework. Given the growth and complexity of international business activities and practices, career opportunities are available and rewarding.

The International Business major must complete 1) the General Education program requirements, 2) the Pre-Business program requirements, 3) the College of Business Administration Core requirements, 4) the required courses within the International Business major, and 5) the elective courses within the International Business major.

To receive a Bachelor of Science in Business Administration/International Business, each student must successfully complete all of the course requirements outlined in each of the three required categories and one of the optional categories listed below.

Required Categories:

- International Business Core:

(Complete all courses — 8 credits)

		Credits	
6600:293	Career Orientation	1	
6600:493	Career Management	1	
6800:405	Multinational Corporations	3	
6800:421	International Business Practices	3	**8**

- International Business Courses:

(Complete two courses — 6 credits)

6400:323	International Business Law	3	
6400:481	International Business Finance	3	
6500:457	International Management	3	
6600:385	International Marketing	3	
6800:495	Internship in International Business	1-3	
6800:496	Special Topics in International Business	1-3	**6**

- International Geography Core:

(Complete one course — 3 credits)

3350:320	Economic Geography	3	
3350:353	Latin America	3	
3350:356	Europe	3	
3350:358	Russia and Associated States	3	
3350:360	Asia	3	
3350:363	Africa South of the Sahara	3	**3**
Subtotal:			**17**

Global Interdisciplinary Option:

(Complete three courses — 9 credits)

3250:450	Comparative Economic Systems	3	
3250:460	Economic Development & Planning For Underdeveloped Nations	3	
3250:461	Principles of International Economics	3	
3350:450	Development Planning	3	
3700:300	Comparative Politics	4	
3700:310	International Politics And Institutions	4	
3700:321	Western European Politics	3	
3700:322	Politics of Post-Communist States	3	
3700:323	Politics of China and Japan	3	
3700:312	The Politics Of International Trade And Money	3	
3700:326	Politics Of Development Nations	3	
3870:270	Cultures of the World	3	**9**
Total with Interdisciplinary Option:			**26**

Foreign Language Option:

(Complete One Language Sequence — 11 credits)

3520:xxx	French Language		
3520:101	Beginning French I	4	
3520:102	Beginning French II	4	
3520:201	Intermediate French I	3	
3530:xxx	German Language		
3530:101	Beginning German I	4	
3530:102	Beginning German II	4	
3530:201	Intermediate German I	3	
3550:xxx	Italian Language		
3550:101	Beginning Italian I	4	
3550:102	Beginning Italian II	4	
3550:201	Intermediate Italian I	3	
3570:xxx	Russian Language		
3570:101	Beginning Russian I	4	
3570:102	Beginning Russian II	4	
3570:201	Intermediate Russian I	3	
3580:xxx	Spanish Language		
3580:101	Beginning Spanish I	4	
3580:102	Beginning Spanish II	4	
3580:201	Intermediate Spanish I	3	**11**
Total with Foreign Language Option:			**28**

College of Fine and Applied Arts

Mark Auburn, Ph.D., *Interim Dean*
John Bee, Ph.D., *Interim Associate Dean*
William Seaton, Ph.D., *Associate Dean*

OBJECTIVES

The purpose of the College of Fine and Applied Arts is to further the objectives of the University by providing a quality program of undergraduate and graduate education with artistic, technological, clinical performance, research and studio experience in the fine and applied arts, as well as:

- To maintain curricula for the preparation of a student majoring in these areas.
- To prepare a student for graduate study and career opportunities on a professional competence level.
- To provide instruction designed to meet specific curricular needs of all the colleges of the University.
- To serve the elective interests of the student seeking diversity and enrichment in academic programs.
- To encourage the development of technical knowledge and professional skills which underlie the communicative functions of human expression.
- To nurture and expand, through this congregation of the arts, not only a knowledge of creative and cultural heritage but also a perceptual and aesthetic awareness of direct sensory experience through creation and performance.

The college recommends each student for the appropriate bachelor's or master's degree in accordance with the student's specialization.

COLLEGE REQUIREMENTS

Requirements for Admission

To be admitted to the College of Fine and Applied Arts, the student must have completed at least 30 credits of work with at least a 2.30 grade-point average or above and have the approval of the dean. A student transferring to the School of Art from another institution must submit a portfolio of work for approval before admission. A student transferring from another college or institution into the music program must submit to a placement examination and an audition. The longer and more professionally oriented programs should be started during the first or second year when the student is still under the guidance of the Office of Academic Advising. The shorter majors need not be declared before the student is ready for transfer to the college. At the time of admission to the college, the student is assigned an adviser by the Director of the School.

Requirements for Baccalaureate Degrees

- Compliance with University requirements, **Section 3** of this Bulletin.
- Completion of a major program of instruction (see below).
- Electives consisting of courses offered for credit in the University's four-year degree programs, provided that the prerequisites as set forth in this Bulletin are met, and further provided that not more than two credits of physical education activities, eight credits of applied music or four credits of music organizations are included. (Credit limitations on applied music and music organizations do not apply to the Bachelor of Music degree.) While credits from another institution or college may be accepted, application toward graduation will depend upon the nature of the student's program of study.
- The recommendation of the director of the student's major school.
- Demonstrated ability to use English. One other language may be required depending upon the degree program.

Degrees

The following baccalaureate degrees are granted in the College of Fine and Applied Arts:

Bachelor of Arts in Studio Art, Art History
Bachelor of Fine Arts in Studio Art (Ceramics, Drawing, Graphic Design, Metalsmithing, Painting, Photography, Printmaking, Sculpture)
Bachelor of Arts: Family and Child Development, Food Science, Pre-Kindergarten, Child-Life Specialist
Bachelor of Arts in Fashion Merchandising: Apparel, Home Furnishings, and Fiber Arts tracks
Bachelor of Arts in Interior Design
Bachelor of Science in Dietetics
Bachelor of Science in Home Economics Education
Bachelor of Arts in Music
Bachelor of Music in Performance, History and Literature, Theory/Composition, Jazz Studies, and Music Education
Bachelor of Arts in Communication
Bachelor of Arts in Business and Organizational Communication, Communication/Rhetoric, Mass Media–Communication
Bachelor of Arts in Speech-Language Pathology and Audiology
Bachelor of Arts in Social Work
Bachelor of Arts/Social Work
Bachelor of Arts in Theatre Arts
Bachelor of Arts in Theatre Arts-Musical Theatre
Bachelor of Arts in Dance
Bachelor of Fine Arts in Dance
Bachelor of Fine Arts in Dance-Musical Theatre

Graduation Requirements

A student must earn a major in a school of the college. A major consists of 24 to 62 credits in addition to the required General Education and, in the case of the Bachelor of Arts degree, foreign language courses. Part or all of these credits may be taken in specifically required courses depending upon the major. The exact requirements for each major will be found on the following pages in the section headed "Programs of Instruction."

Minor Areas of Study

For an explanation of minor areas of study in the College of Fine and Applied Arts, see **Section 5** of this Bulletin.

PROGRAMS OF INSTRUCTION

7100: Art

Bachelor of Arts

- Two years of a foreign language as required by major.
- Completion of studio or art history option as required by major.
- Electives — 6-25 credits.
- 7100:100 Survey of History of Art I, 7100:101 Survey of History of Art II, 7100:210 Visual Arts Awareness (included in General Education), and elective art history course(s) as required by major.

Studio Art Option

- General Education (including 7100:210 Visual Arts Awareness) — 42 credits
- Completion of the second year of a foreign language or the following courses in American Sign Language — 14 credits:

		Credits
7700:101	Beginning Sign Language I	3
7700:102	Beginning Sign Language II	3
7700:201	Intermediate Sign Language	3
7700:202	Advanced Sign Language	3
7700:222	Survey of Deaf Culture in America	2

- Studio art coursework, including one course in each of six different areas of emphasis: e.g., printmaking, sculpture — 41 credits.
- Survey of History of Art I and II (7100:100,101) plus one additional advanced-level art history course — 11 credits.

History of Art Option (Second-year of a foreign language required)

- General Education (including 7100:210 Visual Arts Awareness) and second year of a foreign language — 56 credits
- History of art including 7100:100,101 Survey of History of Art I and II, one history of art symposium, one special problems in history of art course, one special topics in history of art — 38 credits.
- Studio art course work to include at least four different areas of emphasis: e.g., painting, photography (7100:275 recommended) — 12 credits.

Art Education Options

B.A. in Art Studio with Certification in K-12 Art Education

- General Education requirement — 39 credits.
- Art Studio Courses — 42 credits.

		Credits
7100:121	Three-Dimensional Design	3
7100:131	Introduction to Drawing	3
7100:144	Two-Dimensional Design	3
7100:222	Introduction to Sculpture	3
7100:233	Life Drawing	3
7100:244	Color Concepts	3
7100:213, 4, 5	Introduction to Lithography, Screen, or Relief Printing	3
7100:245, 6, 7	Introduction to Polymer Acrylic, Watercolor, or Oil Painting	3
7100:254	Introduction to Ceramics	3
	or	
7100:266	Introduction to Metalsmithing	3
7100:275	Introduction to Photography	3
	Art Studio electives beyond the introductory level	12

- Art History Courses — 19 credits.

7100:100	Survey of History of Art I	4
7100:101	Survey of History of Art II	4
7100:210	Visual Arts Awareness	3
7100:300	Art Since 1945	3
7100:401	Museology	2
3600:350	Philosophy of Art	3

- Professional education (including student teaching) — 41 credits.

Note: The National Teacher Exam (NTE) is required for certification. Students must take the general knowledge, professional knowledge, and art education segments of the NTE.

B.A. in Art Studio with Certification in 7-12 Art Education

- General Education requirement — 39 credits.
- Art Studio Courses — 42 credits.

7100:121	Three-Dimensional Design	3
7100:131	Introduction to Drawing	3
7100:144	Two-Dimensional Design	3
7100:222	Introduction to Sculpture	3
7100:233	Life Drawing	3
7100:244	Color Concepts	3
7100:213, 4, 5	Introduction to Lithography, Screen, or Relief Printing	3
7100:245, 6, 7	Introduction to Polymer Acrylic, Watercolor, or Oil Painting	3
7100:254	Introduction to Ceramics	3
	or	
7100:266	Introduction to Metalsmithing	3
7100:275	Introduction to Photography	3
	Art Studio electives beyond the introductory level	12

- Art History Courses — 19 credits.

7100:100	Survey of History of Art I	4
7100:101	Survey of History of Art II	4
7100:210	Visual Arts Awareness	3
7100:300	Art Since 1945	3
7100:401	Museology	2
3600:350	Philosophy of Art	3

- Professional education (including student teaching) — 36 credits.

Note: The National Teacher Exam (NTE) is required for certification. Students must take the general knowledge, professional knowledge, and art education segments of the NTE.

B.A. in Art History with Certification in K-12 Art Education

- General Education requirement — 39 credits.
- Art Studio Courses — 39 credits.

7100:121	Three-Dimensional Design	3
7100:131	Introduction to Drawing	3
7100:144	Two-Dimensional Design	3
7100:222	Introduction to Sculpture	3
7100:233	Life Drawing	3
7100:244	Color Concepts	3
7100:213, 4, 5	Introduction to Lithography, Screen, or Relief Printing	3
7100:245, 6, 7	Introduction to Polymer Acrylic, Watercolor, or Oil Painting	3
7100:254	Introduction to Ceramics	3
	or	
7100:266	Introduction to Metalsmithing	3
7100:275	Introduction to Photography	3
	Art Studio electives beyond the introductory level	9

- Art History Courses — 46 credits.

		Credits
7100:100	Survey of History of Art I	4
7100:101	Survey of History of Art II	4
7100:210	Visual Arts Awareness	3
7100:300	Art Since 1945	3
7100:401	Museology	2
3600:350	Philosophy of Art	3
	Other Art History courses as required by major	27

- Professional education (including student teaching) — 41 credits.

Note: The National Teacher Exam (NTE) is required for certification. Students must take the general knowledge, professional knowledge, and art education segments of the NTE.

B.A. in Art History with Certification in 7-12 Art Education

- General Education requirement — 39 credits.
- Art Studio Courses — 39 credits.

7100:121	Three-Dimensional Design	3
7100:131	Introduction to Drawing	3
7100:144	Two-Dimensional Design	3
7100:222	Introduction to Sculpture	3
7100:233	Life Drawing	3
7100:244	Color Concepts	3
7100:213, 4, or 5	Introduction to Lithography, Screen, or Relief Printing	3
7100:245, 6, or 7	Introduction to Polymer Acrylic, Watercolor, or Oil Painting	3
7100:254	Introduction to Ceramics	3
	or	
7100:266	Introduction to Metalsmithing	3
7100:275	Introduction to Photography	3
	Art Studio electives beyond the introductory level	9

- Art History Courses — 46 credits.

7100:100	Survey of History of Art I	4
7100:101	Survey of History of Art II	4
7100:210	Visual Arts Awareness	3
7100:300	Art Since 1945	3
7100:401	Museology	2
3600:350	Philosophy of Art	3
	Other Art History courses as required by major	27

- Professional education (including student teaching) — 36 credits.

Note: The National Teacher Exam (NTE) is required for certification. Students must take the general knowledge, professional knowledge, and art education segments of the NTE.

Bachelor of Fine Arts

- General Education requirement — 42 credits.
- Foundations Curriculum in Art

7100:100	Survey of History of Art I	4
7100:101	Survey of History of Art II	4
7100:121	Three-Dimensional Design	3
7100:131	Introduction to Drawing	3
7100:144	Two-Dimensional Design	3
7100:233	Life Drawing	3
7100:250	Portfolio Review	0
7100:210	Visual Arts Awareness	3

- Electives — 6-9 credits.
- Two advanced-level art history courses (one for graphic design emphasis students).
- Senior exhibition
- Portfolio review as specified for student's area of emphasis.
- Studio art courses must include one area of major emphasis as described below, plus studio electives to equal no less than 68 credits.

Ceramics

7100:222	Introduction to Sculpture	3
7100:231	Drawing II	3
7100:254	Ceramics I	3
7100:354	Ceramics II	3
7100:454	Advanced Ceramics (to be repeated)	15
7100:456	Ceramics Portfolio Review	0
7100:495	Senior Exhibition	0

Drawing

		Credits
7100:231	Drawing II	3
7100:491	Architectural Presentations I	3
	or	
7100:283	Drawing Techniques	3
7100:331	Drawing III	3
7100:333	Advanced Life Drawing (to be repeated)*	6
7100:334	Drawing Portfolio Review	0
7100:431	Drawing IV (to be repeated)*	6
7100:xxx	Printmaking	3
7100:495	Senior Exhibition	0

Graphic Design

7100:132	Drawing for Designers	3
7100:184	Graphic Design Principles	3
7100:185	Introduction to Computer Graphics	3
7100:231	Drawing II	3
7100:275	Introduction to Photography	3
7100:276	Introduction to Professional Photography	3
7100:283	Drawing Techniques	3
7100:288	Typography	3
7100:289	Intermediate Computer Design	3
7100:384	Graphic Design Portfolio Review	0
7100:386	Packaging Design	3
7100:387	Advertising Layout Design	3
7100:388	Production for Designers	3
7100:482	Corporate Identity and Graphic Systems	3
7100:484	Illustration	3
7100:485	Advanced Illustration	3
	or	
7100:480	Advertising Graphic Design	3
7100:488	Publication Design	3
7100:483	Graphics Portfolio Presentations	3
7100:495	Senior Exhibition	0

Metalsmithing

2920:247	Technology of Machine Tools	3
7100:222	Introduction to Sculpture	3
7100:266	Introduction to Metalsmithing	3
7100:268	Color in Metals	3
7100:366	Metalsmithing II	3
7100:466	Advanced Metalsmithing (to be repeated)**	12
7100:467	Metalsmithing Portfolio Review	0
7100:495	Senior Exhibition	0
7100:283	Drawing Techniques	
	or	
7100:231	Drawing II	3

Painting

7100:231	Drawing II	3
7100:245	Introduction to Polymer Acrylic Painting	3
7100:246	Introduction to Watercolor Painting	3
7100:247	Introduction to Oil Painting	3
7100:348	Painting II (to be repeated in different media)	6
7100:350	Painting Portfolio Review	0
7100:449	Advanced Painting (to be repeated)	6
7100:495	Senior Exhibition	0

Photography

3650:137	Light	3
7100:231	Drawing II	3
7100:275	Introduction to Photography	3
7100:276	Introduction to Professional Photography	3
7100:370	History of Photography	3
7100:375	Photography II	3
7100:475	Advanced Photography (to be repeated)	9
	One additional course in Photography (7100:477,475 or 497)	3
7100:476	Photography Portfolio Review	0
7100:495	Senior Exhibition	0
7100:xxx	Printmaking (to be selected from the courses offered in Printmaking)	3

Printmaking

Three of the following:		
7100:213	Introduction to Lithography	3
7100:214	Introduction to Screen Printing	3
7100:215	Introduction to Relief Printing	3
7100:216	Introduction to Intaglio Printing	3
Required:		
7100:185	Introduction to Computer Graphics	3
7100:231	Drawing II	3
7100:275	Introduction to Photography	3
7100:317	Printmaking II (must be repeated)	6
7100:319	Printmaking Portfolio Review	0
7100:375	Photography II	3
7100:418	Advanced Printmaking (must be repeated)	6
7100:495	Senior Exhibition	3

* Required to be repeated once for drawing emphasis students only (6 credits total).

** May take one 7100:368 Color in Metals II in place of one 7100:466.

One of the following:		Credits
7100:245	Introduction to Polymer Acrylic Painting	3
7100:246	Introduction to Watercolor Painting	3
7100:247	Introduction to Oil Painting	3

Sculpture

7100:222	Introduction to Sculpture	3
7100:231	Drawing II	3
7100:254	Introduction to Ceramics	3
	or	
7100:266	Introduction to Metalsmithing	3
7100:321	Figurative Sculpture	3
7100:322	Sculpture II	3
7100:323	Casting	3
7100:420	Sculpture Portfolio Review	0
7100:422	Advanced Sculpture (to be repeated)	9
7100:495	Senior Exhibition	0

B.F.A. Art Education Options

B.F.A. with Certification in K-12 Art Education

- General Education requirement — 39 credits.
- Art Studio Courses — 69 credits.

7100:121	Three-Dimensional Design	3
7100:131	Introduction to Drawing	3
7100:144	Two-Dimensional Design	3
	or	
7100:286	Graphic Design II	3
7100:222	Introduction to Sculpture	3
7100:233	Life Drawing	3
7100:244	Color Concepts	3
7100:213, 4, 5	Introduction to Lithography, Screen, or Relief Printing	3
7100:245, 6, 7	Introduction to Polymer Acrylic, Watercolor, or Oil Painting	3
7100:254	Introduction to Ceramics	3
	or	
7100:266	Introduction to Metalsmithing	3
7100:275	Introduction to Photography	3
	Other Art Studio courses as required by major	39

- Art History Courses — 19-22 credits.

7100:100	Survey of History of Art I	4
7100:101	Survey of History of Art II	4
7100:210	Visual Arts Awareness	3
7100:300	Art Since 1945	3
7100:401	Museology	2
3600:350	Philosophy of Art	3
	Other Art History courses as required by major	0-3

- Professional education (including student teaching) — 41 credits.

Note: The National Teacher Exam (NTE) is required for certification. Students must take the general knowledge, professional knowledge, and art education segments of the NTE.

B.F.A. with Certification in 7-12 Art Education

- General Education requirement — 39 credits.
- Art Studio Courses — 69 credits.

7100:121	Three-Dimensional Design	3
7100:131	Introduction to Drawing	3
7100:144	Two-Dimensional Design	3
	or	
7100:286	Graphic Design II	3
7100:222	Introduction to Sculpture	3
7100:233	Life Drawing	3
7100:244	Color Concepts	3
7100:213, 4, 5	Introduction to Lithography, Screen, or Relief Printing	3
7100:245, 6, 7	Introduction to Polymer Acrylic, Watercolor, or Oil Painting	3
7100:254	Introduction to Ceramics	3
	or	
7100:266	Introduction to Metalsmithing	3
7100:275	Introduction to Photography	3
	Other Art Studio courses as required by major	39

- Art History Courses — 19-22 credits.

7100:100	Survey of History of Art I	4
7100:101	Survey of History of Art II	4
7100:210	Visual Arts Awareness	3
7100:300	Art Since 1945	3
7100:401	Museology	2
3600:350	Philosophy of Art	3
	additional Art History courses as required by major	0-3

- Professional education (including student teaching) — 36 credits.

Note: The National Teacher Exam (NTE) is required for certification. Students must take the general knowledge, professional knowledge, and art education segments of the NTE.

7400: Family and Consumer Sciences*

The mission of the School of Family and Consumer Sciences is to prepare professionals to take leadership positions as generalists and specialists in the areas of home economics. These include dietetics, family and child development, child life, nutrition, clothing, textiles and interiors and vocational home economics education. Graduates are employed in public and private sectors in retailing, health and human services, dietetics, nutrition education and counseling, commercial and interior design, child care in hospital and community settings, food product development, food service administration, and teaching in private and public schools.

- General Education Requirement — 42 credits.**
- Family and Consumer Sciences Core:

  All students enrolled in baccalaureate programs in the School of Family and Consumer Sciences are required to complete the following core of requirements:

		Credits
7400:147	Orientation to Professional Studies in Home Economics & Family Ecology	1
7400:447	Senior Seminar: Critical Issues in Professional Development	1

One course to be chosen from each of the following divisions outside the area of specialization:

Clothing, Textiles and Interiors:		
7400:225	Textiles	3
7400:259	Family Housing	3
7400:219	Clothing Communication	3
Family and Child Development:		
7400:201	Courtship, Marriage and the Family	3
7400:265	Child Development	3
Nutrition/Dietetics and Food Science:		
7400:133	Nutrition Fundamentals‡	3
7400:141	Food for the Family	3
Management:		
7400:362	Family Life Management	3

Bachelor of Arts in Family and Child Development

This degree offers the following emphases: family development, child development, pre-kindergarten teaching certification and child-life specialist. Students interested in pre-kindergarten teaching certification should consult an adviser from the School of Family and Consumer Sciences during first semester freshman year. In addition to departmental requirements listed under 7400: Family and Consumer Sciences, a student must complete one of the following options:

Family Development

3750:100	Introduction to Psychology	3
3750:230	Developmental Psychology	4
7400:201	Courtship, Marriage and the Family	3
7400:255	Fatherhood: The Parent Role	3
7400:265	Child Development	3
7400:301	Consumer Education	3
7400:360	Parent-Child Relations	3
7400:390	Family Relationships in Middle and Later Years	3
7400:401	Family-Life Patterns in Economically Deprived Home	2
7400:404	Adolescence in the Family Context	3
7400:406	Family Financial Management	3
7400:440	Family Crisis	3
7400:442	Human Sexuality	3
7400:445	Public Policy and The American Family	3
	or	
7400:300	Legal Environment of Families	3
7400:496	Parenting Education	3
7400:497	Internship in Home Economics	5
7750:276	Introduction to Social Welfare	4
	Electives selected in consultation with adviser	9

Child Development

2200:245	Infant/Toddler Day-Care Programs	3
2200:250	Observing and Recording Child Behavior	3
5200:310	Introduction to Early Childhood	3
5200:315	Issues and Trends in Early Childhood Education	3
5200:360	Teaching in the Nursery Center	2
5200:370	Nursery Center Laboratory	2
5850:295	Education Technician Field Experience	5
	or	
7400:497	Internship in Home Economics	5
7400:132	Early Childhood Nutrition	2
7400:201	Courtship, Marriage and the Family	3
7400:255	Fatherhood: The Parent Role	3
7400:265	Child Development	3
7400:270	Theory and Guidance of Play	3
7400:280	Creative Activities for Pre-Kindergarten Children	4
7400:303	Children As Consumers	3
7400:360	Parent-Child Relations	3
7400:401	Family-Life Patterns in Economically Deprived Home	2
7400:404	Adolescents in the Family Context	3
7400:460	Organization and Supervision of Child-Care Centers	3
	Electives selected in consultation with adviser	9

Pre-Kindergarten Certification:

2200:245	Infant/Toddler Day Care Programs	3
2200:250	Observing & Recording Children's Behavior	3
3850:340	The Family	3
3850:344	Sociology of Gender	3
3850:412	Socialization: Child to Adult	3
5200:200	Pre-Kindergarten Participation	1
5200:300	Pre-Kindergarten Participation	1
5200:310	Introduction to Early Childhood	3
5200:315	Issues and Trends in Early Childhood Education	3
5200:355	Language and Literacy in Early Childhood Education	3
5200:360	Teaching in the Nursery Center	2
5200:370	Nursery Center Laboratory	2
5200:403	Student Teaching Seminar	1
5200:495	Student Teaching	8
5500:336	Motor Learning and Development for Early Childhood	2
5610:450	Special Education Programming: Early Childhood	3
7400:132	Early Childhood Nutrition	2
7400:265	Child Development	3
7400:270	Theory and Guidance of Play	3
7400:280	Creative Activities for Pre-Kindergarten Children	4
7400:303	Children as Consumers	3
7400:360	Parent-Child Relations	3
7400:401	Family Life Patterns: Economically Deprived Home	2
7400:404	Adolescent in the Family Context	3
7400:448	Before and After School Care	2
7400:460	Organization and Supervision of Child Care Centers	3
	Electives	4

Child-Life Specialist

3750:100	Introduction to Psychology	3
2740:120	Medical Terminology	3
3750:430	Psychological Disorders of Children	4
5200:360	Teaching in Nursery School	2
5200:370	Nursery Center Laboratory	2
5600:450	Counseling Problems Related to Life Threatening Illness and Death	3
5610:440	Developmental Characteristics of Exceptional Individuals	3
7400:270	Theory and Guidance of Play	3
7400:280	Creative Activities for Pre-Kindergarten Children	4
7400:404	Adolescence in the Family Context	3
7400:451	The Child in the Hospital	4
7400:455	Practicum: Establishing and Supervising a Child-Life Program Centers	3
7400:484	Orientation to the Hospital Setting	2
7400:495	Internship: Guided Experience in a Child-Life Program	8
7400:496	Parent Education	3
	Electives selected in consultation with adviser	11

Bachelor of Arts in Food Science

In addition to school requirements listed under 7400: Family and Consumer Sciences, the student must complete the following courses:

- Core

  (A minimum grade of C [2.00] required)

7400:245	Food Theory and Application I	3
7400:246	Food Theory and Application II	3
7400:420	Experimental Foods	3
7400:470	The Food Industry: Analysis and Field Study	3
7400:475	Analysis of Food	3
7400:497	Internship in Food Science	5

* The second year of a foreign language is an optional requirement for the School of Family and Consumer Sciences. Please consult with an adviser in the the proper degree area for options available.

** The University College's General Education requirement for the Bachelor of Science in Dietetics and the Bachelor of Arts in Food Science is 45 credits. The additional three credits come from the use of 3150:129,30 General Chemistry (8 credits) to meet the natural sciences requirements, and from the use of 3850:100 Introduction to Sociology (4 credits) and 3250:100 Introduction to Economics (3 credits) to meet the social sciences requirements. The above-mentioned courses meet the American Dietetic Association requirements.

‡ Required for B.S. in dietetics

- Food Science Electives:
(Students select one or more of the following upper division Food Science courses. A minimum grade of C is required.)

		Credits
7400:403	Advanced Food Preparation	3
7400:474	Cultural Dimensions of Food	3
7400:476	Developments in Food Science	3

- Supporting Discipline Requirements:

3300:390	Professional Writing	3
	or	
2020:222	Technical Report Writing	3
2440:103	Software Fundamentals	2
3100:130	Principles of Microbiology	3
3750:100	Introduction to Psychology	3
6500:301	Management Principles and Concepts	3
6600:300	Marketing Principles	3
7400:301	Consumer Education	3
7400:310	Food Systems Management I	5
	and	
7400:315	Food Systems Management I, Clinical	2
	or	
2280:233	Restaurant Operations and Management	4
7400:316	Science of Nutrition	4
7400:340	Meal Service	2
7400:450	Demonstration Techniques	2

- Science Electives:
(Students choose at least six credits from the following courses.)

2840:201/202/255/270
3100:111/206/207/211-2/217/331/400/440
3150:134/335/336/401-5/411
3650:137-8/261/291
7400:424/426/487/474/475/476/485/490/491

Bachelor of Arts in Fashion Merchandising

This degree offers emphases in three fashion-related areas: apparel, home furnishings, and fiber arts. Courses from the College of Business Administration and/or the Community and Technical College compliment the degree by providing study in marketing, promotion, sales, and retailing. In addition to departmental requirements listed under 7400: Family and Consumer Sciences, a student must complete the courses in the core and the courses in one track.

Core:

6600:335	Advertising	3
	or	
2520:103	Principles of Advertising	3
6600:375	Professional Selling	3
	or	
2520:212	Principles of Sales	3
6600:305	Essentials of Retailing	3
	or	
2520:202	Retailing Fundamentals	3
6600:300	Marketing Principles	3
	or	
2420:101	Essentials of Marketing Technology	3
7400:123	Fundamentals of Construction	3
7400:139	The Fashion and Furnishings Industries	3
7400:225	Textiles	3
7400:352	Strategic Merchandise Planning	3
7400:425	Advanced Textiles	3
7400:427	Global Issues in Textiles and Apparel	3
7400:439	Fashion Analysis	3

Track Options: Students must complete one track

- Apparel Track

7400:125	Principles of Apparel Design	3
7400:219	Clothing Communications	3
7400:221	Evaluation of Apparel and Textile Product	3
7400:437	Historic Costume to 1800	3
7400:438	History of Fashion Since 1780	3
7400:xxx	Apparel, Home Furnishings, and Fiber Arts Tracks Electives (see below)	9

- Home Furnishings Track

7400:158	Introduction to Interior Design	3
7400:221	Evaluation of Apparel and Textile Products	3
7400:259	Family Housing	3
7400:334	Specifications for Interiors I	3
7400:335	Specifications for Interiors II	3
7400:336	Principles and Practices of Design	3
7400:418	History of Interior Design I	4
7400:419	History of Interior Design II	4

- Fiber Arts Track:

		Credits
7400:125	Principles of Apparel Design	3
	or	
7400:158	Introduction to Interior Design	3
7400:311	Studies in Fiber Arts	6
7400:418	History of Interior Design I	4
	AND	
7400:419	History of Interior Design II	4
	or	
7400:437	Historic Costume to 1800	3
	AND	
7400:438	History of Fashion since 1780	3
7400:xxx	Apparel, Home Furnishings, and Fiber Arts Electives (see below)	9

Electives for Apparel, Home Furnishings, and Fiber Arts Tracks:
(Courses used to fulfill track requirements may not be used as elective courses.)

7400:219	Clothing Communications	3
7400:301	Consumer Education	3
	or	
7400:302	Consumer Services	3
	or	
7400:303	Children as Consumers	3
7400:305	Advanced Construction and Tailoring	3
7400:311	Studies in Fiber Arts	3
7400:423	Professional Image Analysis	3
7400:436	Textile Conservation	3
7400:449	Flat Pattern Design	3
7400:485	Fashion Merchandising Seminars	3
7400:490	Fashion Merchandising Workshops	3
7400:497	Internship (appropriate to track)	3

Bachelor of Arts in Interior Design

The professional interior designer is qualified by education, experience, and examination to enhance the the function and quality of interior spaces for the purpose of improving the quality of life, increasing productivity, and protecting the health, safety, and welfare of the public. This four-year professional program prepares students for entry-level positions in residential or nonresidential interior design. The program includes understanding and application of the design process; space planning and programming; furniture selection and layout; application of design elements and decorative elements; selection and application of lighting and color; codes, regulations, and barrier-free environments; systems; development of drafting and communications skills; study of the basic and creative arts; the profession; environmental concerns; universal design; and computer applications in interior design. Both lecture and studio coursework are included in this program. Assistance with entry-level job placement is available. Affiliation with the American Society of Interior Designers (ASID) is available through membership in the student chapter.

The Bachelor of Arts in Interior Design is FIDER accredited at the professional level. FIDER (Foundation for Interior Design Education Research) promotes excellence in interior design education through research and the accreditation of academic programs that prepare interior designers to create interior environments for improving the quality of human experience. FIDER is a recognized member of the Commission on Recognition of Postsecondary Accreditation (CORPA), is recognized by the U.S. Department of Education (DOE) as a reliable authority on the quality of education in the field of interior design, and is a member of the Association of Specialized and Professional Accreditors (ASPA).

Key to the success of any educational program is its interaction with the professional community. The Interior Design Program has an active Advisory Board with representation from the profession, the industry, and the alumni. The professional members of the Advisory Board are:

Sharon Dietrick, *Dietrick and Associates Interiors, Inc.*
Mark Hauserman, *KHGL*
Todd Huckabone, *Donghia*
Paul John, *The University of Akron*
Diane C. King, *Western Reserve Historical Society*
Diane Police, NCIDQ, IIDA,IFMA, *B.P. America, Inc.*
Kathy Presciano, NCIDQ, IIDA, *Nela Park Lighting Institute*
Marjorie Reynolds, *Ethan Allen*
Roger Ryan, AIA, *The University of Akron*
Nicholas Square, BIE

Admission to the Interior Design Program:
Students must meet the College of Fine and Applied Arts Requirements for Admission.

Incoming freshmen will be designated as Pre-Interior Design Candidates and will remain in this category until the following requirements have been met:

- Successful completion of the following courses:

7100:144	Two-Dimensional Design
7100:491	Architectural Presentations I
7400:158	Introduction to Interior Design

- Completion of application for Interior Design Major
- Completion of the screening process
- Selection and notification by the interior design faculty into the Interior Design Major

Upon admission into the program, students will sign an Interior Design Contract and must maintain a grade-point average of 2.50 in all courses in the interior design core.

Transfer students from non-FIDER accredited interior design programs will be placed as pre-interior design candidates. Transfer students from FIDER accredited programs will be admitted directly into the program if they have an overall grade-point average of 2.50 and submit an approved portfolio.

Postbaccalaureate students seeking an additional degree must have an overall grade-point average of 2.50 in all previous college-level work and meet with the Director, Interior Design Studies, for an individual evaluation.

Detailed information on admission to this program of study may be obtained by writing directly to:

Carolyn A. Albanese
Director, Interior Design Studies, Clothing,Textiles
Interiors Division, 215D Schrank Hall South
The University of Akron
Akron, OH 44325.

Interior Design Majors are required to follow the program of study as published due to prerequisites and course content sequencing requirements. There is no foreign language requirement.

- **Interior Design Core Courses** (86 semester hours)
  Students are required to take the following Interior Design Core Course and maintain a 2.00 GPA:

		Credits
2940:250	Architectural Drafting	3
7100:144	Two-Dimensional Design	3
7100:491	Architectural Presentations I	3
7100:492	Architectural Presentations II	3
7400:139	Fashion and Furnishings Industry	3
7400:158	Introduction to Interior Design	3
7400:225	Textiles	3
7400:257	AUTOCAD for Interior Design	3
7400:258	Light in Man-Made Environments	3
7400:259	Family Housing	3
7400:331	Interior Design Theory	3
7400:333	Space Planning and Programming	3
7400:334	Specifications for Interiors I	3
7400:335	Specifications for Interiors II	3
7400:336	Principles and Practices of Design	3
7400:337	Interior Design Contract Documents	3
7400:418	History of Interior Design I	4
7400:419	History of Interior Design II	4
7400:425	Advanced Textiles	3
7400:433	Senior Design Studio I	3
7400:434	Senior Design Studio III	3
7400:435	Decorative Elements in Interior Design	1
7400:458	Senior Design Studio II	3
7400:459	Senior Design Studio IV	3
7400:478	Senior Portfolio Review	1
7400:479	The NCIDQ Examination	1
7400:497	Interior Design Internship	3

And Interior Design Electives (Select 9 credit hours from the following:

7100:121	Three-Dimensional Design	3
7100:131	Introduction to Drawing	3
7100:170	Fundamentals of Photography	3
7100:180	Fundamentals of Graphic Design	3
7100:222	Introduction to Sculpture	3
7100:254	Introduction to Ceramics	3
7400:302	Consumers of Services	3
7400:485	Seminars, i.e. Landscape Architecture, Advanced AutoCAD, Computer Applications, Cultural Studies	3

The student is also required to take the following courses which satisfy both General Education requirements and Interior Design Requirements:

3750:100	Introduction to Psychology (Social Science)	3
3870:150	Cultural Anthropology (Social Science)	4
7100:210	Visual Arts Awareness (Humanities)	3

Bachelor of Arts (2+2) with C & T College Marketing and Sales Technology

General Information

In the first two years the student will be advised by faculty in the Community and Technical College. In the last two years, the student will be advised by the Clothing, Textiles, and Interiors faculty in the School of Family and Consumer Sciences, College of Fine and Applied Arts.

Bachelor of Arts in Fashion Merchandising Business Option (2+2) with C & T Marketing and Sales Technology, Fashion Option

- Completion of all requirements for the Associate Degree in Marketing and Sales Technology, Fashion Option, as established by the Community and Technical College, with technical electives taken from courses in the School of Family and Consumer Sciences, College of Fine and Applied Arts.

C&T Requirements

		Credits
2020:121	English	4
2040:240	Human Relations	3
2040:247	Survey of Basic Economics	3
2420:101	Essentials of Marketing Technology	3
2420:170	Business Mathematics	3
2420:211	Basic Accounting I	3
2420:243	Survey of Finance	3
2420:280	Essentials of Business Law	3
2440:103	Software Fundamentals	2
2520:103	Principles of Advertising	3
2520:106	Visual Promotion	3
2520:202	Retailing Fundamentals	3
2520:210	Consumer Service Fundamentals	2
2520:211	Mathematics of Retail Distribution	3
2520:212	Principles of Salesmanship	3
2540:119	Business English	3
5540:xxx	Physical Education	1
7600:105	Introduction to Public Speaking	3

Fashion Option

2420:202	Personnel Practices	3
7400:139	The Fashion and Furnishings Industries	3
7400:219	Clothing Communication	3
7400:221	Evaluation of Apparel and Household Textiles	3
7400:225	Textiles	3

College of Fine and Applied Arts Requirements

- Completion of remaining General Education requirements
- Completion of remaining credits in the School of Family and Consumer Sciences curriculum
- Completion of language alternative: 14 hours of specified course work, completed as a part of the requirements for the Associate Degree, will be accepted as language alternatives for the Bachelor's degree.
- The following courses required for the Associate Degree programs will be accepted as language alternative for those students completing both the Associate Degree in Marketing and Sales Technology, Fashion or Retailing Options, and the Bachelors of Arts in Clothing, Textiles and Interiors:

2020:240	Human Relations	3
2420:211	Basic Accounting	3
2440:103	Software Fundamentals	2
2520:211	Mathematics and Retail Distribution	3
2520:106	Visual Promotion	3

- Completion of remaining credits in the School of Family and Consumer Sciences curriculum.

7400:123	Fundamentals of Clothing Construction	3
7400:133	Nutrition Fundamentals	3
	or	
7400:141	Food for the Family	3
7400:147	Orientation to Professional Studies	1
7400:201	Courtship, Marriage and the Family	3
	or	
7400:265	Child Development	3
7400:352	Strategic Merchandise Planning	3
7400:427	Global Issues in Textiles and Apparel	3
7400:439	Fashion Analysis	3
7400:362	Family Life Management	3

		Credits
7400:425	Advanced Textiles	3
7400:447	Senior Seminar: Critical Issues	1
7400:xxx	Fashion Merchandising Track (See B.A. in Fashion Merchandising)	24-26

Bachelor of Arts in Fashion Merchandising, Business Option (2+2) with C & T Marketing and Sales Technology, Retailing Option

- Completion of all requirements for the Associate Degree in Marketing and Sales Technology, Retailing Option, as established by the Community and Technical College with the addition of two elective hours. Total electives is thus brought to nine which students fulfill by taking three courses selected from a list of suggested Clothing, Textiles, and Interiors courses from the School of Family and Consumer Sciences.

C&T College Requirements

7600:105	Introduction to Public Speaking	3
5540:xxx	Physical Education	1
2020:121	English	4
2040:240	Human Relations	3
2040:247	Survey of Basic Economics	3
2420:101	Essentials of Marketing Technology	3
2420:170	Business Mathematics	3
2420:202	Personnel Practices	3
2420:211	Basic Accounting I	3
2420:243	Survey in Finance	3
2420:280	Essentials of Business Law	3
2440:103	Software Fundamentals and	2
2520:215	Advertising Projects or	2
2520:219	Sales Projects	2
2520:103	Principles of Advertising	3
2520:106	Visual Promotion	3
2520:202	Retailing Fundamentals	3
2520:210	Consumer Service Fundamentals	2
2520:211	Mathematics of Retail Distribution	3
2520:212	Principles of Sales	4
2520:217	Merchandising Projects	2
2540:119	Business English	3
7400:139	The Fashion and Furnishings Industries	3
7400:219	Clothing Communication	3
7400:225	Textiles	3

College of Fine and Applied Arts Requirements

7400:123	Fundamentals of Construction	3
7400:133	Nutrition Fundamentals or	3
7400:141	Food for the Family	3
7400:147	Orientation to Professional Studies	1
7400:201	Courtship, Marriage and Family Relationships or	3
7400:265	Child Development	3
7400:352	Strategic Merchandise Planning	3
7400:362	Family Life Management	3
7400:425	Advanced Textiles	3
7400:427	Global Issues in Textiles and Apparel	3
7400:439	Fashion Analysis	3
7400:447	Senior Seminar: Critical Issues	1
7400:xxx	Fashion Merchandising Track (see B.A. in Fashion Merchandising)	24-26

Bachelor of Science in Dietetics

To become a registered dietitian (RD), a student must complete the academic requirements, complete a 900-hour supervised experience in dietetic practice, obtain appropriate verification, and pass the dietetic registration examination. Only approved or accredited programs like those at The University of Akron are recognized by the American Dietetic Association (ADA).

The University of Akron has three routes to prepare a student for a career in dietetics – the Didactic Program, the Coordinated Program, and a 2+2 Option for students with a two-year degree in Restaurant Management from the Community and Technical College (C & T). The Didactic Program (which is approved by ADA) includes all required coursework necessary to apply for a 900-hour supervised experience in dietetic practice through a dietetic internship (DI) or Approved Preprofessional Practice Program (AP4) outside the university. The Coordinated Program (which is accredited by ADA) allows students to complete their required 900 hours of supervised experience along with regular coursework during their junior and senior years. The 2+2 Option with C & T allows a student to move into the Didactic Program or apply for the Coordinated Program.

Regardless of the option chosen, students must have successfully completed their coursework and 900 hours of experience before they are eligible to take the registration examination.

Only 12 students per year are admitted to the Coordinated Program. Applications are accepted no later than February 1 of each year. Students who wish to apply to the Coordinated Program must have completed, or be currently taking, the prerequisite courses indicated below by an asterisk(*). Some remaining prerequisites may be completed during the summer following application if these courses are offered during a summer session. In addition to completing the required prerequisites, students must have a minimum GPA of 2.50 with a science GPA of 3.0 and have been accepted to the College of Fine and Applied Arts prior to submission of the application. Students must submit three letters of recommendation and successfully complete an interview. Previous work experience or volunteer activity, preferably in the area of food service or nutrition, although not required, is encouraged before applying for the Coordinated Program.

Students selected for the Coordinated Program will continue their classwork and begin their 900 hours of supervised experience the following fall semester. Students not accepted will continue in the Didactic Program or the 2+2 Option with C & T.

Didactic Program Option

- Family and Consumer Sciences Core (14 credits)
  Note: 7400:133 Nutrition Fundamentals*‡ must be taken.

- General Education Requirement (43 credits)

		Credits
3150:110, 111	Introduction to General, Organic, and Biochemistry I*‡	4
3150:112, 113	Introduction to General, Organic, and Biochemistry II*‡	4
3250:100	Introduction to Economics*	3
3300:111	English Composition I*	4
3300:112	English Composition II*	3
3400:210	Humanities in the Western Tradition I	4
xxxx:xxx	Humanities elective	3
xxxx:xxx	Humanities elective Note: See General Education Program under University College. Humanities electives must be chosen from two different sets.	3
3400:385-391	World Civilization	2
3400:385-391	World Civilization	2
3450:xxx	Mathematics* (per placement test)	3
3850:100	Introduction to Sociology*	4
5540:xxx	Physical Education	1
7600:105	Introduction to Public Speaking* or	3
7600:106	Effective Oral Communication	3

- American Dietetic Association Requirements (71-73 credits)

3100:130	Principles of Microbiology*‡	3
3100:208	Human Anatomy and Physiology I*‡	4
3100:209	Human Anatomy and Physiology II*‡	4
3470:260	Basic Statistics or	3
3470:261	Introductory Statistics I	2
3750:100	Introduction to Psychology*‡	3
5400:351	Consumer Homemaking Methods	4
6200:201	Accounting I* or	4
2420:211	Basic Accounting I*	3
6500:341	Human Resource Management‡	3
6500:480	Introduction to Health-Care Management‡	3
7400:245	Food Theory and Application I*‡	3
7400:246	Food Theory and Application II*‡	3
7400:301	Consumer Education	3
7400:310	Food Systems Management I‡	5
7400:315	Food Systems Management I Clinical‡	2
7400:328	Nutrition in Medical Science I‡	4
7400:413	Food Systems Management II‡	3
7400:424	Nutrition in the Life Cycle‡	3
7400:426	Therapeutic Nutrition‡	5
7400:428	Nutrition in Medical Science II‡	5
7400:480	Community Nutrition I‡	3
7400:482	Community Nutrition II‡	3

- Electives (10 hours)

* Students who wish to apply for the Coordinated Program must have completed, or be currently taking, all of the prerequisite courses indicated by an asterisk (*)

‡ In order to earn a Plan V Verification Statement, students graduating from any of the three options leading to a B.S. in Dietetics must obtain a grade of "C" or better in this course.

Coordinated Program Option

- Family and Consumer Sciences Core (14 credits)
  Note: 7400:133 Nutrition Fundamentals*‡ must be taken.
- General Education Requirement (43 credits)

		Credits
3150:110, 111	Introduction to General, Organic, and Biochemistry I*‡	4
3150:112, 113	Introduction to General, Organic, and Biochemistry II*‡	4
3250:100	Introduction to Economics*	3
3300:111	English Composition I*	4
3300:112	English Composition II*	3
3400:210	Humanities in the Western Tradition I	4
xxxx:xxx	Humanities elective	3
xxxx:xxx	Humanities elective Note: See General Education Program under University College. Humanities electives must be chosen from two different sets.	3
3400:385-391	World Civilization	2
3400:385-391	World Civilization	2
3450:xxx	Mathematics* (per placement test)	3
3850:100	Introduction to Sociology*	4
5540:xxx	Physical Education	1
7600:105	Introduction to Public Speaking*	3
	or	
7600:106	Effective Oral Communication	3

- American Dietetic Association Requirements (79-81 credits)

3100:130	Principles of Microbiology*‡	3
3100:208	Human Anatomy and Physiology I*‡	4
3100:209	Human Anatomy and Physiology II*‡	4
3470:260	Basic Statistics	3
	or	
3470:261	Introductory Statistics I	2
3750:100	Introduction to Psychology*‡	3
5400:351	Consumer Homemaking Methods‡	4
6200:201	Accounting I*	4
	or	
2420:211	Basic Accounting I	3
6500:341	Human Resource Management‡	3
6500:480	Introduction to Health-Care Management‡	3
7400:245	Food Theory and Application I*‡	3
7400:246	Food Theory and Application II*‡	3
7400:310	Food Systems Management I‡	5
7400:315	Food Systems Management I Clinical‡	2
7400:328	Nutrition in Medical Science I‡	4
7400:329	Nutrition in Medical Science I Clinical‡	3
7400:413	Food Systems Management II‡	3
7400:414	Food Systems Management II Clinical‡	2
7400:424	Nutrition in the Life Cycle‡	3
7400:426	Therapeutic Nutrition‡	5
7400:428	Nutrition in Medical Science II‡	5
7400:429	Nutrition in Medical Science II Clinical‡	3
7400:480	Community Nutrition I‡	3
7400:481	Community Nutrition I Clinical‡	1
7400:482	Community Nutrition II‡	3
7400:483	Community Nutrition II Clinical‡	1
7400:486	Staff Relief: Dietetics‡	1

- Electives (5 hours)

(2+2) Option with C & T (Restaurant Management)

2020:121	English	4
2020:222	Technical Report Writing	3
2040:247	Survey of Basic Economics	3
2280:120	Safety and Sanitation	3
2280:121	Fundamentals of Food Preparation I	4
2280:122	Fundamentals of Food Preparation II	4
2280:123	Meat Technology	2
2280:135	Menu Planning and Purchasing	3
2280:232	Dining Room Service and Training	2
2280:233	Restaurant Operation and Management	4
2280:237	Internship	1
2280:238	Cost Control Procedures	3
2280:240	Systems Management and Personnel	3
2280:243	Food Equipment and Plant Operations	3
2420:170	Business Mathematics	3
2420:211	Basic Accounting I	3
2420:212	Basic Accounting II	3
	or	
2540:263	Business Communications	3
2420:280	Essentials of Business Law	3
2520:103	Principles of Advertising	3
2540:119	Business English	3
3100:130	Principles of Microbiology‡	3
3100:208	Human Anatomy and Physiology I‡	4
3100:209	Human Anatomy and Physiology II‡	4
3150:110	Introduction to General, Organic & Biochemistry I‡	4
3150:111	Introduction to General, Organic & Biochemistry II‡	4
3300:112	English Composition II	3
3400:210	Humanities in the Western Tradition I	4
xxxx:xxx	Humanities elective	3
xxxx:xxx	Humanities elective Note: See General Education Program under University College. Humanities electives must be chosen from two different sets.	3
3400:385-391	World Civilization	2
3450:145	College Algebra	4
3470:260	Basic Statistics	3
	or	
3470:261	Introductory Statistics I	2
3750:100	Introduction to Psychology‡	3
3850:100	Introduction to Sociology	4
5400:351	Consumer Homemaking Methods‡	4
5540:xxx	Physical Education	1
6500:480	Introduction to Health Care Management‡	3
7400:xxx	Clothing Communication, Textiles or Housing option	3
7400:133	Nutrition Fundamentals‡	3
7400:147	Orientation to Professional Studies in Home Economics and Family Ecology	1
7400:201	Courtship, Marriage, and Family Relationships	2
	or	
7400:265	Child Development	3
7400:301	Consumer Education	3
7400:328	Nutrition in Medical Science I‡	4
7400:362	Family Life Management	3
7400:413	Food Systems Management II‡	3
7400:420	Experimental Foods	3
	or	
7400:421	Special Problems: Food Theory and Application II	3
7400:421	Special Problems: Food Systems Management I	2
7400:424	Nutrition in Life Cycle‡	3
7400:426	Therapeutic Nutrition‡	5
7400:428	Nutrition in Medical Science II‡	5
7400:447	Critical Issues in Home Economics	1
7400:480	Community Nutrition I	3
7400:482	Community Nutrition II	3
7600:105	Introduction to Public Speaking	3
	or	
7600:106	Effective Oral Communication	3

Home Economics Teacher Education

Home economics education majors receive training and preparation to teach in grades 7 through 12. Options are available in vocational work and family life education (consumer homemaking), vocational job training and non-vocational home economics. Vocational job training specializations are available in foods and hospitality, child-care/day-care, fabrics and interiors, health, home and community, and multi-area options. A minor in home economics education is also available. Home economics education students may elect to graduate from the College of Education or the College of Fine and Applied Arts. Contact the School of Family and Consumer Sciences for copies of these specific programs or to meet with the home economics education adviser. Transcript analysis for these specific vocational options is available upon request.

Secondary Education Requirements for Home Economics Education Teaching Certificates

5050:210	Characteristics of Learners	3
5050:211	Teaching and Learning Strategies	3
5050:310	Instructional Design	3
5050:311	Instructional Resources	3
5050:320	Diversity in Learners	3
5050:330	Classroom Management	3
5050:410	Professional Issues in Education	3
5300:325	Content Reading in Secondary Schools (30 clinical hours)	3
5300:375	Exploratory Experience in Secondary Education (6 clinical hours, 30 field hours)	1
5300:445	Microcomputer Literacy for Secondary Teachers (30 clinical hours)	2
5300:495	Student Teaching	8-11

* Students who wish to apply for the Coordinated Program must have completed, or be currently taking, all of the prerequisite courses indicated by an asterisk (*)

‡ In order to earn a Plan V Verification Statement, students graduating from any of the three options leading to a B.S. in Dietetics must obtain a grade of "C" or better in this course.

* Students who wish to apply for the Coordinated Program must have completed, or be currently taking, all of the prerequisite courses indicated by an asterisk (*)

‡ In order to earn a Plan V Verification Statement, students graduating from any of the three options leading to a B.S. in Dietetics must obtain a grade of "C" or better in this course.

Vocational Work and Family Life Education and Multi-area Job Training Certification: 4-Year Provisional

• Vocational Methods Certification Requirements		*Credits*
5200:360	Teaching in the Nursery Center	2
5200:370	Nursery Center Laboratory	2
5400:301	Occupational Employment Experience	4
5400:351	Vocational Work and Family Life Education	4
5400:451	Vocational Home Economics Job Training Methods	3
• Select one of the following		
7100:121	Three-Dimensional Design	3
7100:191	Design	2
• Required		
7400:123	Clothing Construction	3
7400:133	Nutrition Fundamentals	3
7400:147	Orientation to Professional Studies in Home Economics and Family Ecology	1
7400:158	Introduction to Interior Design and Furnishings	3
7400:159	Family Housing	3
7400:201	Courtship, Marriage and Family Relationships	3
7400:225	Textiles	3
7400:245	Food Theory and Application I	3
	and	
7400:246	Food Theory and Application II	3
	or	
7400:141	Food for the Family	3
7400:265	Child Development	3
• Select one of the following		
7400:301	Consumer Education	3
7400:303	Children as Consumers	3
• Select one of the following		
7400:305	Advanced Construction and Tailoring	3
7400:449	Flat Pattern Design	3
• Select one of the following		
2280:121	Fundamentals of Food Preparation	2
7400:340	Meal Service	2
• Required		
7400:362	Family Life Management	3
7400:406	Family Financial Management	3
7400:415	Household Equipment	2
7400:447	Senior Seminar: Critical Issues in Home Economics	1
7400:450	Demonstration Techniques	2
7400:485	Seminar in Home Economics (taken during Student Teaching)	1

Senior Honors Program

Senior honors project in home economics and family ecology is one to three credits per semester and may be repeated for a total of six credits. Prerequisite: Senior standing in the Honors Program and approval of honors project by faculty preceptor.

7500: Music

Students wishing to major in music must complete the standard undergraduate application for admission and return it to the Office of Admissions. A student cannot be formally admitted to the School of Music until admitted to the University. To be accepted as a music major, both freshmen and transfer students must successfully complete an audition on their major applied instrument and be evaluated in the knowledge of rudimentary theory, ear training, and keyboard skills. Prospective students should contact the School of Music for information on specialized programs, as well as dates and times for theory evaluations.

A student entering the The University of Akron Fall 1992 or thereafter who is majoring in music is required to earn a grade of "C-" or better in all music courses required in the degree program. A student receiving a grade below "C-" in a required music course must repeat the course.

Changing Major Instruments

A student may later change his declared major instrument after being admitted to the School of Music, but must then audition and satisfy all requirements for the new area as an entering student.

Applied Music Requirements

- Studio Study (Private Lessons) - Skill in at least one major area of performance must be progressively developed to the highest level appropriate to the student's major. All students majoring in music are required to enroll in applied music on their declared major instrument every semester.

A performance major in the Bachelor of Music program must enroll for four credits in applied music each semester which equates to one-hour lesson or two half-hour lessons each week. All other students enroll for two credits in applied music on their declared major instrument each semester which equates to a half-hour lesson each week.

Because of the tutorial nature of applied music study, there is an additional fee for applied music registration beyond the normal credit-hour tuition and general service fee.

The offering of applied music instruction is dependent upon the availability of instructors. Although students may request study with a given instructor, the audition does not guarantee study with a particular member of the faculty. The priority for assignment is as follows: 1) collegiate music majors; 2) music minors; 3) non-music majors who are members of University performing ensembles; 4) pre-college students in the high school/college program of the School of Music; and, 5) all others.

Students will not be eligible for applied music study 1) if they fail to pass the entrance audition; 2) if a particular instructor's studio is full; 3) if the quality of work demonstrated is judged unacceptable by the applied instructor; or 4) if faculty in the student's applied area conclude on the basis of a jury that a continuation of applied study is not merited. Students in the studio are expected to exhibit a mature attitude and productive behavior.

Levels of Applied Music Study

- The study of applied music is divided into seven course levels. These conform to levels of proficiency and the requirements of the various degree programs.

  Entrance to applied music is by audition. Advancement in level is by jury examination only.

  7520:000 — Level for elective credit in non-music programs, pre-college adults, preparatory program enrollment, and for correcting deficiencies before permission is granted to enroll at the 100 level. Credits in applied music at this level cannot be counted toward any degree requirements in music.

  Music majors may apply a maximum of eight credits from any of the following levels to their degree program. A maximum of 32 credits may be counted toward degree requirements.

  7520:100 — Freshman level

  7520:200 — Sophomore level

  7520:300 — Junior level

  7520:400 — Senior level

Minimum Performance Levels Required by Degree Program

- **Bachelor of Music in Performance Major** — Thirty-two credits and completion of the 400 level in the primary performance area. A junior recital is required at the 300 level. A full senior recital is also required.
- **Bachelor of Music in Theory/Composition Major** — Eight credits in a performance area and completion of the 200 level in piano. A full senior composition recital is required.
- **Bachelor of Music in Music Education** — Sixteen credits and completion of the 200 level in the primary performance area. A half recital is required.
- **Bachelor of Music in Jazz Studies** — Sixteen credits and completion of the 200 level in the primary performance area; additional completion of the 100 level in flute and clarinet for saxophone majors and the 200 level in classical guitar for electric guitar majors. A full senior recital is required.
- **Bachelor of Music in History and Literature** — Sixteen credits in the primary performance area and completion of the 200 level in that area. A half senior recital is required.

Jury System in Applied Music

- A jury examination is the only way in which a student may advance from one course level to another. Each music major may take a jury examination on the declared major instrument in the primary performance area once each year, after two semesters of study, and/or after the minimum number of credits is attained. However, a faculty member of an applied area may require a student to take a jury examination at the end of any semester.

  Each applied area is empowered to terminate applied study, to advise a student that further study will not apply to a degree program unless the next jury examination demonstrates capacity to continue. A jury examination may be used by a student studying applied music at the 000 level as an audition to the 100 level.

Applied Repertory of Study

- Each applied music section (brass, composition, guitar, keyboard, percussion, piano, strings, voice, and woodwinds) has a published repertory of study requirements for each of the course levels. These requirements are available from the Applied Area Coordinator, individual applied instructors, and the School of Music office.

Studio Classes

- Each music major is required to attend the weekly 50-minute class taught by his applied instructor. Attendance at studio class is part of the requirement for applied music study, and reflects in the student's grade in applied music. Every student is required to perform in studio class at least once each semester.

Sectional Recitals

- Each applied section holds a sectional recital each week. Attendance by students studying in the section is required. Students who have performed in studio class may sign up to perform on sectional recitals.

Applied Study for Non-music Majors

- Non-music majors may enroll for applied music with the permission of the individual applied instructor or the area coordinator, whichever is appropriate to the area of study. Acceptance for studio study is based upon an audition, usually given the first week of classes. Only students who meet applied studio standards will be accepted for applied instruction.

Recital Attendance Requirements

- Bachelor of Music majors are required to enroll and receive credit for eight semesters of 7500:157(Student Recital). Bachelor of Arts music majors are required to enroll and receive credit for four semesters. Student Recital (7500:157) carries no academic credit and has no fee. Further information on the attendance requirement is available in the School of Music office.

Ensemble Requirement

Enrollment in all ensembles requires permission of the instructor.

- **Major Conducted Ensemble Requirement** — Students who are music majors must enroll for eight (8) semesters in a major conducted performance ensemble on their declared major instrument. Guitar and keyboard majors should refer to the Memo of Agreement for specific ensemble requirements. Auditions for membership are held each year and occasionally each semester. Students must enroll in the major conducted ensemble appropriate to their declared major each semester, on an academic year basis.

  Students pursuing a major in History and Literature, Performance, Theory, Composition, and Music Education must complete a minimum of eight semesters. However, keyboard majors in Music Education may substitute one year of a major choral ensemble in place of a Keyboard Ensemble. Four semesters are required for Jazz Studies majors, music minors, and those pursuing the Bachelor of Arts degree in music. Students who do not complete degree requirements within eight semesters must continue to enroll in a major conducted ensemble each semester until graduation requirements are met.

  Major conducted Ensembles include: Concert Choir, Guitar Ensemble, Keyboard Ensemble, Concert Band, Symphonic Band, University Symphony Orchestra, and University Singers.

- **Non-major Conducted Ensemble Requirement** — Non-major conducted ensembles may be taken in addition to, but not instead of, major conducted ensembles. Jazz Studies majors are required to complete eight credits in jazz ensembles in addition to four semesters of major conducted ensembles.

  Non-major conducted Ensembles include: the Akron Symphony Chorus, Brass Choir, Chamber Orchestra, University Band, Instrumental Ensembles, Jazz Ensemble, Jazz Lab Band, Madrigal Singers, Marching Band, New Music Ensemble, Steel Drum Band, Blue and Gold Brass (Basketball Band), and Wind Choir.

- **Unconducted Ensembles** — Unconducted ensembles may be taken in addition to, but not instead of, major conducted ensembles.

  Unconducted ensembles include: Brass Ensembles, Jazz Combos, Mixed Ensembles, Percussion Ensembles, String Ensembles, Vocal Ensembles, and Woodwind Ensembles.

  Ensemble credit is repeatable

Minimum Proficiency Requirements in Keyboard and Voice

- All music majors must meet minimum proficiencies in keyboard, and music education students, in voice.

  Keyboard proficiency is met by successfully completing keyboard Harmony I and II and passing a final keyboard examination.

  The voice proficiency requirement (for music education students only) is met by successfully completing one semester of Class Voice, or by passing a voice jury.

- Core curriculum in music (for all degree programs)

		Credits
7500:141	Ear Training/Sight Reading I	1
7500:142	Ear Training/Sight Reading II	1
7500:151	Theory I	3
7500:152	Theory II	3
7500:154	Music Literature I	2
7500:155	Music Literature II	2
7500:241	Ear Training/Sight Reading III	1
7500:242	Ear Training/Sight Reading IV	1
7500:251	Theory III	3
7500:252	Theory IV	3
7500:261	Keyboard Harmony I	2
7500:262	Keyboard Harmony II	2
7500:351	Music History I	3
7500:352	Music History II	3
	Total core credits	30

Bachelor of Arts

- Total of 131 credits required for degree.

  General Education requirement and 2nd year of a foreign language — 56 credits.

- Core Curriculum in music — 30 credits.
- Performance courses:

7500:157	Student Recital (four semesters)	0
7510:xxx	Music Organization (four semesters in a major conducted ensemble on primary instrument)	4
7520:xxx	Applied Music (Completion of the 200 level on primary instrument)	8

- Electives — 33 credits.

The Bachelor of Arts program is intended as a cultural course or as a preparation for graduate study but not as professional preparation for a performance or teaching career.

Bachelor of Music

Performance (emphasis in accompanying)

- Total of 133 credits required for degree.
- General Education requirement — 42 credits.
- Core curriculum in music — 30 credits.
- Applied music and performance courses:

7510:114	Keyboard Ensemble (eight semesters in a major conducted ensemble)	8
7520:xxx	Applied Piano (completion of 400 level is required prior to graduation)	32
	Applied Voice	2

- In order to complete this program, students are required to have a reading knowledge of French, German, and Italian. This can be accomplished through 7500:265 and 266.
- Additional required music courses — 14-15 credits

7500:325	Research in Music	2
7500:361	Conducting	2
7500:365	Song Literature	2
7500:371	Analytical Techniques	2
7500:451	Introduction to Musicology	2
7500:497	Independent Study (Chamber Music)	2

- Electives — 4 credits
- Senior recital (to include works as soloist, accompanist and in chamber ensembles).

Performance (emphasis in brass)

- Total of 132 credits required for degree.
- General Education requirement — 42 credits.
- Core curriculum in music — 30 credits.
- Applied music and performance courses — 40 credits

		Credits
7500:157	Student Recital (eight semesters)	0
7510:xxx	Music Organization*	8
7520:xxx	Applied Music - primary instrument (completion of the 400 level is required prior to graduation)	32

- Additional required music courses — 14-15 credits

7500:361	Conducting	2
7500:371	Analytical Techniques	2
7500:372	20th Century Analysis	2
7500:454	Orchestration	2
7500:471	Counterpoint	2
7500:497	Independent Study (with approval of applied instructor and adviser)	2
7500:353	Electronic Music (As an alternative to 7500:452 Composition, or 7500:454 Orchestration, or 7500:471 Counterpoint)	3

- Electives 5-6 credits.
- Senior recital (full recital required).

Performance (emphasis in piano/harpsichord)

- Total of 132 credits required for degree.
- General Education requirement — 42 credits.
- Core curriculum in music — 30 credits.
- Applied music and performance courses 40 credits.

7500:157	Student Recital (eight semesters)	0
7510:xxx	Music Organization*	8
7520:xxx	Applied Music - primary instrument (completion of the 400 level is required prior to graduation)	32

- Additional required music courses — 14 credits.

7500:271	Piano Pedagogy and Literature I	2
7500:272	Piano Pedagogy and Literature II	2
7500:325	Research in Music	2
7500:361	Conducting	2
7500:371	Analytical Techniques	2
7500:451	Introduction to Musicology	2
7500:497	Independent Study (with approval of applied instructor and advisor)	2

- Electives — 6 credits.
- Senior recital (full recital required).

Performance (emphasis in strings)

- Total of 133 credits required for degree.
- General Education requirement — 42 credits.
- Core curriculum in music — 30 credits.
- Applied music and performance courses — 40 credits.

7500:157	Student Recital (eight semesters)	0
7510:xxx	Music Organization*	8
7520:xxx	Applied Music - primary instrument (completion of the 400 level is required prior to graduation)	32

- Additional required music courses — 15-16 credits

7500:361	Conducting	2
7500:371	Analytical Techniques	2
7500:372	20th Century Analysis	2
7500:454	Orchestration	2
7500:463	Repertoire and Pedagogy: String Instruments	3
7500:471	Counterpoint	2
7500:497	Independent Study (with approval of applied instructor and advisor)	2
7500:353	Electronic Music (As an alternative to 7500:454 Orchestration)	3

- Electives — 5-6 credits.
- Senior Recital (full recital required)

Performance (emphasis in voice)

- Total of 144 credits required for degree.
- General Education requirement — 42 credits.
- Core curriculum in music — 30 credits.
- Applied music and performance courses — 40 credits.

7500:157	Student Recital (eight semesters)	0
7510:xxx	Music Organization*	8
7520:xxx	Applied Music - primary instrument (completion of the 400 level is required prior to graduation)	32

* Eight semesters in a major conducted ensemble

- Additional required music courses — 14 credits.

		Credits
7500:371	Analytical Techniques	2
7500:471	Counterpoint	2
7500:361	Conducting	2
7510:108	Opera Workshop	2
7500:265	Diction I	2
7500:266	Diction II	2
7500:365	Song Literature	2

- Foreign Language Requirement — 12 credits

3550:101	Italian	4
3530:101	German	4
3520:101	French	4

- Senior recital (full recital required).
- Electives 6 credits.

Performance (emphasis in voice/musical theatre)#

- Total of 142 credits required for degree.
- General Education requirement — 42 credits.
- Core curriculum in music — 18 credits.

7500:101	Intro to Music Theory**	2
7500:104	Class Piano I**	2
7500:105	Class Piano II**	2
7500:151	Theory I	3
7500:152	Theory II	3
7500:154	Music Literature I	2
7500:155	Music Literature I	2
7500:141,2,3,4	Ear Training/Sight Reading I, II, II, IV	4
7500:261	Keyboard Harmony I	2
7500:262	Keyboard Harmony II	2

- Applied music and performance courses — 44 credits.

7500:157	Student Recital (eight semesters)	0
7510:108	Opera Workshop (six semesters)#	6
7510:1xx	Choral Ensembles (by audition)	2
7520:x24	Applied Voice (completion of 300 level)	32
7520:x25	Applied Piano (completion of 200 level)	4

- Additional required music courses — 4 credits.

7500:265	Diction I	2
7500:320	Musical Theatre History and Literature I	2

- Theatre Core — 20 credits

7800:145	Movement Training or	3
7920:270	Musical Theatre Dance Techniques	3
7800:151	Voice and Diction	3
7800:172	Acting I	3
7800:262	Stage Makeup	3
7800:321	Musical Theatre History and Literature II	2
7800:421	Musical Theatre Production	3
7800:475	Acting for Musical Theatre	3

- Dance Core — 10 credits

7900:119	Introduction to Contemporary Dance Techniques I	2
7900:124	Ballet I: Introduction to Ballet I	2
7900:130	Jazz Dance I: Introduction to Jazz Dance I	2
7900:230	Jazz Dance II: Introduction to Jazz Dance II	2
7900:144	Tap Techniques I: Introduction to Tap I	2

- Senior recital (full recital required - recital may include a maximum of one group of songs from approved operettas and musical theatre works).
- Electives — 4 credits.

Performance (emphasis in woodwinds)

- Total of 132 credits required for degree.
- General Education requirement — 42 credits.
- Core curriculum in music — 30 credits.
- Applied music and performance courses — 40 credits.

7500:157	Student Recital (eight semesters)	0
7510:xxx	Music Organization*	8
7520:xxx	Applied Music - primary instrument (completion of the 400 level is required prior to graduation)	32

* Eight semesters in a major conducted ensemble

- Additional required music courses — 14-15 credits

		Credits
7500:325	Research in Music	2
7500:361	Conducting	2
7500:371	Analytical Techniques	2
7500:454	Orchestration	2
7500:471	Counterpoint	2
7500:497	Independent Study (with approval of applied instructor and advisor)	2
7500:353	Electronic Music (As an alternative to 7500:452 Composition or 7500:454 Orchestration or 7500:471 Counterpoint)	3

- Electives — 5-6 credits.
- Senior recital (full recital required).

Performance (emphasis in organ)

- Total of 131 credits required for degree.
- General Education requirement — 42 credits.
- Core curriculum in music (7500:262 not required) — 28 credits.
- Applied music and performance courses — 40 credits.

7500:157	Student Recital (eight semesters)	0
7510:xxx	Music Organization*	8
7520:xxx	Applied Music - primary instrument (completion of the 400 level is required prior to graduation)	32

- Additional required music courses 15 credits

7500:263	Service Playing for Organists (in lieu of 7500:262)	2
7500:361	Conducting	2
7500:371	Analytical Techniques	2
7500:456	Advanced Conducting: Choral	2
7500:462	Repertoire and Pedagogy: Organ	3
7500:471	Counterpoint	2
7500:497	Independent Study (Choral Arranging)	2

- Electives 6 credits.
- Senior recital (full recital required).

Performance (emphasis in percussion)

- Total of 132 credits required for degree.
- General Studies — 42 credits.
- Core curriculum in music — 30 credits.
- Applied music and performance courses — 40 credits.

7500:157	Student Recital (eight semesters)	0
7510:xxx	Music Organization*	8
7520:xxx	Applied Music - primary instrument (completion of the 400 level is required prior to graduation)	32

- Additional required music courses — 14-15 credits

7500:361	Conducting	2
7500:371	Analytical Techniques	2
7500:372	20th Century Analysis	2
7500:432	Teaching and Literature: Percussion Instruments	2
7500:454	Orchestration	2
7500:455	Advanced Conducting: Instrumental	2
7500:471	Counterpoint	2
7500:353	Electronic Music (As an alternative to 7500:471 Counterpoint)	3

- Electives — 5-6 credits.
- Senior recital (full recital required).

Performance (emphasis in guitar)

- Total of 132 credits required for degree.
- General Education requirement 42 credits.
- Core curriculum in music (7500:262 not required) 28 credits.
- Applied music and performance courses 40 credits.

7500:157	Student Recital (eight semesters)	0
7510:xxx	Music Organization*	8
7520:xxx	Applied Music - primary instrument (completion of the 400 level is required prior to graduation)	32

- Additional required music courses 16-17 credits.

7500:259	Fretboard Harmony (in lieu of 7500:262)	2
7500:361	Conducting	2
7500:371	Analytical Techniques	2
7500:467	Guitar Pedagogy	2
7500:469	History and Literature of the Guitar and Lute	2
7500:468	Guitar Arranging	2
7500:471	Counterpoint	2
7500:497	Independent Study (with approval of applied instructor and advisor)	2
7500:353	Electronic Music (As an alternative to 7500:471 Counterpoint)	3

- Electives 5-6 credits.
- Senior recital (full recital required).

History and Literature

- Total of 133 credits required for degree.
- General Education requirement 42 credits.
- Core curriculum in music 30 credits.
- Applied music and performance courses 24 credits.

7500:157	Student Recital (eight semesters)	0
7510:xxx	Music Organization*	8
7520:xxx	Applied Music primary instrument (completion of the 200 level is required for graduation)	16

- Additional music courses — 14-15 credits.

7500:325	Research in Music	2
7500:361	Conducting	2
7500:371	Analytical Techniques	2
7500:451	Introduction to Musicology	2
7500:454	Orchestration	2
7500:455	Advanced Conducting: Instrumental	2
7500:353	Electronic Music (As an alternative to 7500:452 Composition)	3

- Special study electives in music — 8 credits.

Graduate-level courses are available to those undergraduate upperclassmen who qualify for special permission to register.

7500:497	Independent Study in Music	1-2
7500:601	Choral Literature	2
7500:621	Music History Survey: Middle Ages and Renaissance	2
7500:622	Music History Survey: Baroque Era	2
7500:623	Music History Survey: Classical and Romantic Eras	2
7500:624	Music History Survey: Twentieth Century	2

- Cognate area such as history, language or other arts — 8 credits
- Electives — 6-7 credits
- A reading proficiency equal to the second year of undergraduate study in an approved foreign language (preferably German, French, or Italian) is required for completion of the degree program.

Composition

- Total of 133 credits required for degree.
- General General Education requirement — 42 credits.
- Core curriculum in music — 30 credits.
- Additional music performance courses — 32 credits.

7500:157	Student Recital (eight semesters)	0
7510:xxx	Music Organization*	8
7520:xxx	Applied Music primary instrumental‡	8
7520:xxx	Applied Music composition (completion of the 200 level piano proficiency is required)	16

- Additional music courses — 23 credits.

7500:353	Electronic Music	3
7500:361	Conducting	2
7500:371	Analytical Techniques	2
7500:372	Techniques for Analysis: 20th Century Music	2
7500:451	Introduction to Musicology	2
7500:454	Orchestration	2
7500:455	Advanced Conducting: Instrumental or	2
7500:456	Advanced Conducting: Choral	2
7500:471	Counterpoint	2
7500:497	Independent Study of Music	2-4

- Senior recital of original composition.
- Electives — 8 credits.

* Eight semesters in a major conducted ensemble

‡ Passage to the 300 level in the primary applied area is required before graduation

*Jazz Studies***

- Total of 135 credits required for degree.
- General Education requirement — 42 credits.
- Core curriculum in music — 30 credits.
- Additional music courses — 6-7 credits.

		Credits
7500:361	Conducting	2
7500:371	Analytical Techniques	2
7500:454	Orchestration	2

- Additional jazz courses — 21 credits.

7500:210,1	Jazz Improvisation I, II	4
7500:212	The Music Industry: A Survey of Practices and Opportunities	2
7500:307	Techniques of Stage Band Performance and Direction	2
7500:308	Jazz History and Literature	3
7500:309	Jazz Keyboard Techniques	2
7500:310	Jazz Improvisation III	2
7500:311	Jazz Improvisation IV	2
7500:407	Jazz Arranging and Scoring	2
7500:497	Independent Study (Practicum in Jazz Studies)	2

- Applied music and performance courses — 28 credits.

7500:157	Student Recital (eight semesters)	0
7510:xxx	Music Organization	
	Major Conducted	4
	Jazz Ensembles	8
7520:xxx	Applied Music primary instrument (completion of 200 level is required for graduation)	16
	Saxophone major must pass flute and clarinet proficiency (completion of 100 level is required)	
	Guitar majors must pass classical guitar proficiency (completion of the 100 level is required)	

- Electives — 7-8 credits.
- Senior recital.

Music Education

The music education curriculum strives to bring each of its students to an intellectual understanding of the pedagogical, historical, and theoretical aspects of musical performance while demanding the highest levels of technical and artistic development in the teaching and performing of music.

In view of the heavy educational requirements, students may be required to attend eight semesters plus one or two summer terms in order to complete the degree within a four-year period.

- General Education requirement — 42 credits.
- Core curriculum in music — 30 credits.
- Professional Education (Including Student Teaching and 7500:492 Student Teaching Colloguium) — 21 credits.
- Additional Music Courses by Major: Band-Wind and Percussion Instruments/Applied Music and Performance Courses — 26 credits.

7500:157	Student Recital (eight semesters)	0
7500:457	Senior Recital (one-half recital during 12 months prior to graduation, but not during the semester of student teaching)	0
7510:104	Symphonic Band	0
	Two semesters. Instrumental majors excepting bowed strings.	
	or	
7510:125	Concert Band	8
7510:104	Marching Band (as prerequisite for 7500:205)	
7520:xxx	Applied Music primary instrumental (completion of the 300 level is required prior to student teaching)	16

Minimum vocal, keyboard and conducting proficiencies must be attained before assignment to student teaching.

- Additional Required Music Courses - 25 credits

7500:205	Marching band Organization and Technique#	2
7500:254	String Instrument Techniques	2
7500:276	Trumpet and French Horn Methods@	1
7500:277	Clarinet and Saxophone Methods@	1
7500:297	Introduction to Music Education	2
7500:307	Techniques of Stage Band Performance	2
7500:340	Teach General Music	2
7500:342	Elementary Instrumental Methods@	2
7500:343	Secondary Instrumental Methods@	2
7500:345	Low Brass Methods@	1
7500:346	Flute and Double Reed Methods@	1
7500:361	Conducting	2
7500:454	Orchestration	2
7500:455	Advanced Instrumental Conducting (band)	2
7500:458	Percussion Methods	1

- Orchestra - Violin, Viola, Cello, String Bass/Applied Music and Performance Courses - 24 credits

7500:157	Student Recital (eight semesters)	0
7500:457	Senior Recital	0
510:103	Symphony Orchestra	8
7520:xxx	Applied Music - primary instrument	16

- Additional Music Courses - 21 credits

7500:254	String Instrumental Tech	2
7500:276	Trumpet and French Horn Methods@	1
7500:277	Clarinet and Saxophone Methods@	1
7500:297	Introduction to Music Education	2
7500:340	Teaching General Music	2
7500:342	Elementary Instrumental Music	2
7500:343	Secondary Instrumental Music	2
7500:345	Low Brass Methods@	1
7500:346	Flute and Double Reed Methods@	1
7500:361	Conducting	2
7500:454	Orchestration	2
7500:455	Advanced Instrumental Conducting (orchestra)	2
7500:458	Percussion Methods@	1

- Choral/General Music - Voice, Keyboard, or Guitar/Applied Music and Performances Courses - 24 credits

7500:157	Student Recital (eight semesters)	0
7500:457	Senior Recital	0 7
7510:120	Concert Choir	
	or	
7510:121	University Singers	8
7520:xxx	Applied Music - primary instrument	16

- Additional Required Music Courses - 25 credits

Vocal Majors:		
7520:022	Applied Classical Guitar	2
7520:025	Applied Piano	2 4
Keyboard Majors:		
7520:022	Applied Classical Guitar	2
7520:024	Applied Voice	2
Guitar Majors:		
7520:024	Applied Voice	2
7520:025	Applied Piano	2 7
7500:265	Diction for Singers	
7500:297	Intro duction to Music Education	2
7500:339	Music in Early Childhood	2
7500:340	Teaching General Music	2
7500:341	Curricular Innovations	3
7500:342	Elementary Instrumental Music	2
7500:344	Secondary Choral Music Methods and Materials	2
7500:361	Conducting	2
7500:363	Intermediate Conducting:Choral	2
7500:456	Advanced Conducting: Choral *	2

- One-half recital during 12 months prior to graduation but not during the semester of student teaching except with special permission of Area Coordinator.
- Minimum vocal, keyboard and conducting proficiencies must be attained before assignment to student teaching.
- Instrumental-Band majors must have two semesters of 7510:104 Marching Band as a prerequisite for 7500:205.

** Acceptance in the Jazz Program is by permission of the coordinator of Jazz Studies.

Bowed string majors are not required to take this course.

@ Methods classes must be taken in sequence.

@Methods classes must be taken in sequence.

*Eight semesters in a major conducted ensemble

7600: Communication

Requirements for transferring into the School of Communication
Completion of 7600:102, 7600:115, 3300:111 or 2020:121, 3300:112 and 7600:105 or 7600:106 with grade of C or better in each course and completion of the General Education math requirement is required to transfer into the school as a major or to enroll in 300-400 level courses in the School of Communication. Courses satisfying the School of Communication's math requirement include 3450:145 (College Algebra) or 3470:260 (Basic Statistics) or their equivalents. The math requirement is not satisfied by 3450:289 (Math for Fine and Applied Arts).

Bachelor of Arts

- General Education requirement and Second Year of a Language — 56 credits
- Communication Core (Grade of C or better required for all core courses.)

		Credits
7600:102	Survey of Mass Communication	3
7600:115	Survey of Communication Theory	3
7600:200	Careers in Communication	1
7600:384	Communication Research	3
		10

- Concentration in business and organizational communication, interpersonal and public communication, or mass media communication as described in tracks plus departmental electives: 36
- University electives: 26
- Total: 128

Bachelor of Arts in Business and Organizational Communication

Bachelor of Arts in Interpersonal and Public Communication

Bachelor of Arts in Mass-Media Communication

- General Education requirement and "tag" degree course work 56
- Communication Core 10
- Area of specialization as described below plus
  - School of Communication electives 36
  - University electives 26
- Total 128

Exit requirement
To graduate with a degree from the School of Communication, a student must attain an overall minimum 2.30 GPA for all courses taken in the School of Communication.

Business and Organizational Communication

- Communication Core 10
- Major: Choice of Organizational Communication or Public Relations track as follows:

Public Relations Track:

Major area: (required)		
7600:201	Newswriting	3
7600:280	Media Production Techniques	3
7600:303	Public Relations Writing	3
7600:309	Public Relations Publications	3
7600:403	Public Relations Strategies	3
7600:404	Public Relations Cases	3
Choose nine credits from the following list:		
7600:235	Interpersonal Communication	3
7600:252	Persuasion	3
7600:345	Business & Professional Speaking	3
7600:405	Media Copywriting	3
Communication electives: (not used for above requirements)		9
Communication Total		46

Organizational Communication Track:

Major area: (required)		
7600:226	Interviewing	3
7600:235	Interpersonal Communication	3
7600:344	Group Decision Making	3
7600:345	Business & Professional Speaking	3
7600:435	Communication in Organizations	3
Choose 12 credits from one of the following list:		
7600:201	Newswriting	3
7600:245	Argumentation	3
7600:252	Persuasion	3
7600:303	Public Relations Writing	3
7600:309	Public Relations Publications	3
7600:325	Intercultural Communication	3
7600:436	Analyzing Organizational Communication	3
7600:437	Training Methods in Communication	3
7600:454	Theory of Group Processes	3
Communication Electives: (not used for above requirements)		9
Communication Total		46

Interpersonal and Public Communication

Required courses		9
7600:235	Interpersonal Communication	3
7600:245	Argumentation	3
7600:346	Advanced Public Speaking	3
Select a total of nine credits from the following list:		
7600:225	Module: Listening	1
7600:226	Interviewing	3
7600:227	Nonverbal Communication	3
7600:252	Persuasion	3
7600:325	Intercultural Communication	3
7600:344	Group Decision Making	3
7600:355	Freedom of Speech	3
And a total of six credits from the following list:		
7600:454	Theory of Group Processes	3
7600:457	Public Speaking in America	3
7600:470	Analysis of Public Discourse	3
7600:471	Theories of Rhetoric	3
Communication Electives: (not used for above requirements)		12
Communication Total		46

Mass Media—Communication

- Core requirements
- Major: Choice of Electronic Media or News Track as follows:

Electronic Media Track:

Required courses		24
7600:280	Media Production Techniques	3
7600:387	Radio Television Writing	3
7600:388	History and Structure of Broadcasting	3
7600:484	Regulations in Mass Media	3
And choose one course (3 credits):		
7600:282	Radio Production	3
7600:283	Television Production	3
7600:362	Video Camera and Recording	3
7600:368	Basic Audio and Video Editing	3
And choose five courses (15 credits):		
7600:270	Voice Training for Media	3
7600:282	Radio Production	3
7600:283	Television Production	3
7600:302	Broadcast Newswriting	3
7600:362	Video Camera and Recording	3
7600:368	Basic Audio and Video Editing	3
7600:375	Communication Technology and Change	3
7600:383	Advanced Television Production	3
7600:395	Radio Station Programming and Operations	3
7600:396	Television Station Programming and Operations	3
7600:462	Advanced Media Writing	3
7600:468	Advanced Audio and Video Editing	3
7600:486	Broadcast Sales and Management	3
7600:493	Electronic Media Production	3
Communication Electives: (not used for above requirements)		6
Communication Total		46

News Track:

Required News courses		12
7600:201	Newswriting	3
7600:206	Feature Writing	3
7600:301	Advanced Newswriting	3
7600:484	Regulations in Mass Media	3
And choose one course (3 credits):		
7600:302	Broadcast News Writing	3
7600:306	Magazine Writing	3
And choose two courses (6 credits):		
7600:282	Radio Production	3
7600:283	TV Production	3
7600:304	Editing	3
7600:307	Commercial Electronic Publishing	3
And choose one course (3 credits):		
7600:410	Journalism Management	3
7600:486	Broadcast Sales and Management	3

And:	Credits
Communication Electives: (not used for above requirements)	12
Communication Total	46

Bachelor of Arts (2+2) with C&T College (Computer Programming Technology)

Communication Major

- Communication Core 10
- Area of specialization:
  Business and Organizational Communication and Communication electives 36
- Tag in Computer Programming 14
- Total 60
- General Education requirement 42
- Other Required Courses for the Associate Degree 33
- University Electives 0
- Total Credits for Bachelor's Degree 135

xxxx:xxx	Natural Science	8
xxxx:xxx	Area Studies/Cultural Diversity requirement	4
7600:105	Introduction to Public Speaking	3
	or	
7600:106	Effective Oral Communication	3
5540:110	Physical Education	1
3300:112	English Composition II	3
3400:210	Humanities in the Western Tradition I	4
xxxx:xxx	Humanities requirement (see adviser for options)	6
2020:121	English	4
2020:222	Technical Report Writing	3
2030:141,2	Math for Data Processing I, II	7
2040:240	Human Relations	3
2040:247	Survey of Basic Economics	3
2420:211,2	Basic Accounting I, II	6
2440:xxx	Computer Programming Electives	6
2420:104	Introduction to Business	3
2440:103	Software Fundamentals	2
2440:121	Introduction to Logic/Programming	3
2440:131	Introduction to Programming	2
2440:132	Assembler Programming	3
2440:133	Structured Cobol Programming	2
2440:234	Advanced Business Programming	3
2440:239	RPG II	2
2440:241	Systems Analysis and Design	3
2440:251	Computer Applications Projects	3
2440:254	Job Control Language	1
7600:xxx	Communication Electives	9
7600:102	Survey of Mass Communication	3
7600:115	Survey of Communication Theory	3
7600:201	Newswriting	3
7600:235	Interpersonal Communication	3
7600:245	Argumentation	3
7600:280	Media Production Techniques	3
7600:282	Radio Production	3
7600:283	Television Production	3
7600:309	Public Relations Publications	3
7600:344	Group Decision Making	3
7600:345	Business and Professional Speaking	3
7600:384	Communication Research	3
7600:387	Radio and TV Writing	3
7600:388	History and Structure of Broadcasting	
	or	
7600:464	Corporate Video Management	3
7600:403	Public Relations Strategies	3
7600:435	Communication in Organizations	3
	Additional production course	3
	Communication electives	15

7700: Speech-Language Pathology and Audiology

Bachelor of Arts (Clinical or Non-Clinical Option)* Bachelor of Arts in Speech-Language Pathology (Clinical or Non-Clinical Option)*

Program Description

The School of Speech-Language Pathology and Audiology offers an undergraduate (pre-professional) and graduate program of academic and clinical training in speech-language pathology and audiology. Audiologists are responsible for the non-medical management of hearing loss including testing hearing, selecting and working with hearing aids, counselling individuals concerning hearing loss, providing auditory rehabilitation and making noise measurements. A speech-language pathologist works with children and adults who have problems with communication. A clinician first determines the presence of a problem, then designs a plan for treatment. The speech-language pathologist's therapeutic goal is to help individuals communicate more effectively.

Course work focuses on the evaluation and treatment of the many disordered communication processes. After completing the appropriate prerequisite course work, students with a grade-point average of 3.0 in major field course work and a grade of "B" or better in the prerequisite course may elect to choose the clinic option. Students wishing to study this field without clinical experience at the undergraduate level may pursue a non-clinical curricular option. Decisions regarding degree options and graduate study should be made only after consultation with departmental advisers. A master's degree is required for employment as a speech-language pathologist or audiologist.

Typical work settings for M.A.-level speech-language pathologists and audiologists include: schools, hospitals, clinics, private practice, physicians' offices, hearing aid dealerships, and universities. For employment in school settings, individuals must be certified by the department of education of the state in which they will be working. Since more than 65 percent of practicing speech-language pathologists work in public school settings, it is recommended that undergraduate students who are interested in pursuing careers in the communicative disorders professions, complete the requirements for educational certification, except for student teaching, which can be taken only at the graduate level. These educational requirements can be taken as electives. Each student should consult with an adviser about this option.

Program Requirements:

- Completion of the General Education requirement and the second year of a foreign language for the B.A., or the non-foreign language option for the tagged degree (B.A. in Speech-Language Pathology) 56 credits. Students may count 14 credits of American Sign Language for the foreign language requirement.
- Electives — 21 credits
- Core in Speech-Language Pathology and Audiology:

		Credits
7700:101	Beginning Sign Language I	3
7700:110	Introduction to Disorders of Communication	3
7700:140	Introduction to Hearing Science	3
7700:210	Introduction to Clinical Phonetics	4
7700:211	Introduction to Speech Science	2
7700:230	Language Science and Acquisition	4
7700:240	Aural Rehabilitation	4
7700:241	Principles of Audiometry	3
7700:250	Observation and Clinical Methods	2
7700:321	Articulatory and Phonologic Disorders	4
7700:322	Organic Disorders of Communication	4
7700:330	Language Disorders	4
7700:340	Audiologic Evaluation	2
7700:445	Multi-Cultural Considerations in Audiology and Speech Language Pathology	2
7700:450	Assessment of Communicative Disorders	3

Clinical Option

- Add the following Clinical Practica to the above requirements.

7700:350	Entrance Practicum	3
7700:351	SLP Screening Practicum	2
7700:451	Audiology Screening Practicum	2

* Courses in the Department of Biology are required to fulfill the natural sciences requirement (3100:264,265). A.B.A. in Communicative Disorders substitutes a core of courses in psychology and related disciplines for the foreign languages (see adviser for specific courses).

Non-Clinical Option

- To the University electives and core curriculum, add the following for a total of at least 4 credits:

		Credits
7700:102	Beginning Sign Language II	3
7700:121	Psychosocial Aspects of Deafness	2
7700:201	Intermediate Sign Language	3
7700:202	Advanced Sign Language	3
7700:222	Survey of Deaf Culture in America	2
7700:350	Entrance Practicum	3
7700:481	Special Projects: Communicative Disorders	2-4

7750: Social Work

Program Description

The social work major is an accredited undergraduate professional program preparing students for entry level practice positions in social service agencies employing Social Workers. Social Work is concerned with the restoration of human social and emotional functioning, with the provision of services to meet social needs and with the prevention of social dysfunctions. Most Social Workers function in agencies responding to specific social problems.

Elective courses are available in such areas as health, community development, child welfare, mental health or retardation, family service, corrections, etc. Certificate programs in Afro-American Studies and Gerontology (Aging) can be scheduled within the elective framework of the curriculum.

Programs can be designed for the student wishing to prepare specifically for generalist practice in the above-mentioned areas. Students will also be prepared for entry into graduate schools of social work for completion of the Master of Social Work degree.

The Bachelor of Arts degree with a major in social work requires completion of two years of a foreign language (Spanish is recommended). The Bachelor of Arts in Social Work degree does not require a language.

Curricula have been developed (2+2 arrangements) so that students completing the two-year associate degree programs in Community Services Technology (C & T), Social Services Technology (Wayne College), and Human Services Technology (Stark Tech) with social services emphasis programs can complete either the B.A. or B.A./S.W. four-year curriculum in social work with two additional years of course work.

There are 2+2 arrangements between this program and both the Associate in Community Services Technology and the Associate of Criminal Justice Technology programs offered in the Community and Technical College, as well as the Associate in Social Services Technology program at the Wayne General and Technical College.

The program can be completed by taking courses in the evening, except for the "field work" experience.

The Social Work Program at The University of Akron is fully accredited by the Council on Social Work Education.

Certificate programs can be designed in Afro-American Studies, Life-Span Development: Adulthood and Aging, Gender Identity and Roles.

Students wishing to major in social work must file an application with the College of Fine and Applied Arts. In addition, a separate application packet must be filed with the School of Social Work. A 2.3 grade point average is required for admission to the School. Once admitted, the student should maintain a 2.5 grade point average in social work major courses.

Bachelor of Arts

- Completion of the General Education requirement, 42 credits including.

3100:103	Natural Science Biology/Lab	4
	and	
3850:100	Introduction to Sociology	4

- Course Prerequisites for the Social Work major:

7750:270	Poverty in the United States	3
7750:276	Introduction to Social Welfare	4
7750:427	Human Behavior and Social Environment for Social Workers I	3

- Social Work major:

7750:401,2,3,4	Social Work Practice I, II, III, IV	12
7750:410	Minority Issues in Social Work Practice	3
7750:421	Introduction to the Field Experience	1
7750:422	Field Experience Seminar	1
7750:425	Social Work Ethics	3
7750:430	Human Behavior and Social Environment for Social Workers II	3
7750:440	Social Work Research I Note: students are strongly encouraged to complete their math requirement before enrolling in 7750:440 Social Work Research I.	3
7750:441	Social Work Research II	3
7750:445	Social Policy Analysis for Social Workers	3
7750:495	Field Experience: Social Agency (two semesters, four credits each)	8
7750:4xx	Electives in Social Work	6

- General Electives, including 14 credits in a foreign language.

A total of 19 credits in approved courses in the social and behavioral sciences must be taken in addition to the 10 credits that are required (3250:100, Introduction to Economics; 3700:100, Government and Politics in the United States; 3750:100, Introduction to Psychology). The 19 credits may be chosen from the following suggested disciplines: Anthropology, Economics, History, Political Science, Psychology, and Sociology. Associate degree, Minor, and certificate requirements may satisfy some of the general electives.

The General Education requirement, course prerequisites for the social work major, foreign language, and general electives requirements for the Bachelor of Arts degree in social work are the same requirements that students in the following 2+2 programs must complete:

Bachelor of Arts (2+2) with C&T
[Community Services Technology (Social Service Emphasis)]

Bachelor of Arts (2+2) with C&T
(Criminal Justice Technology)

Bachelor of Arts (2+2) with Wayne College
[Social Services Technology (Social Service Emphasis)]

Bachelor of Arts (2+2) with Stark Tech
[Human and Social Services]

Bachelor of Arts/Social Work

- Completion of the General Education requirement, 42 credits including.

3100:103	Natural Science Biology/Lab	4
	and	
3850:100	Introduction to Sociology	4

- Course Prerequisites for the Social Work major:

7750:270	Poverty in the United States	3
7750:276	Introduction to Social Welfare	4
7750:427	Human Behavior and Social Environment for Social Workers I	3

- Social Work major:

7750:401,2,3,4	Social Work Practice I, II, III, IV	12
7750:410	Minority Issues in Social Work Practice	3
7750:421	Introduction to the Field Experience	1
7750:422	Field Experience Seminar	1
7750:425	Social Work Ethics	3
7750:430	Human Behavior and Social Environment for Social Workers II	3
7750:440	Social Work Research I Note: students are strongly encouraged to complete their math requirement before enrolling in 7750:440 Social Work Research I.	3
7750:441	Social Work Research II	3
7750:445	Social Policy Analysis for Social Workers	3
7750:495	Field Experience: Social Agency (two semesters, four credits each)	8

- General Electives:

A total of 19 credits in approved courses in the social and behavioral sciences must be taken in addition to the 10 credits that are required (3250:100, Introduction to Economics; 3700:100, Government and Politics in the United States; 3750:100, Introduction to Psychology). The 19 credits may be chosen from the following suggested disciplines: Anthropology, Economics, History, Political Science, Psychology, and Sociology. Associate degree, Minor, and certificate requirements may satisfy some of the general electives.

The General Education requirement, course prerequisites for the social work major, foreign language, and general electives requirements for the Bachelor of Arts in Social Work degree are the same requirements that students in the following 2+2 programs must complete:

Bachelor of Arts/Social Work (2+2) with C&T
[Community Services Technology (Social Service Emphasis)]

Bachelor of Arts/Social Work (2+2) with C&T
(Criminal Justice Technology)

Bachelor of Arts/Social Work (2+2) with Wayne College
[Social Services Technology (Social Service Emphasis)]

Bachelor of Arts/Social Work (2+2) with Stark Tech
[Human and Social Services]

7800: Theatre

Bachelor of Arts

- General Education Requirement, including the second year of a foreign language — 56 credits.
- Core curriculum:

		Credits
7800:100	Experiencing Theatre	3
7800:106	Introduction to Scenic Design	3
7800:107	Introduction to Stage Costume Techniques	3
7800:145	Movement for Actors I	3
7800:151	Voice for the Stage	3
7800:172	Acting I	3
7800:230	Development of Theatre: History of Theatre	3
7800:262	Stage Make-up	3
7800:265	Basic Stagecraft I	3
7800:271	Directing I	3
7800:330	Development of Theatre: Dramatic Literature I	3
7800:430	Development of Theatre: Dramatic Literature II	3
7810:100-400	Production Design/Technical Laboratory	4

- Theatre Electives 23 credits (Consult academic adviser).
- General Electives 9 credits (Consult academic adviser).
- All candidates for the B.A. will be required to earn at least eight credits of 7810 laboratory work. At least four of these credits must be in 7810 Production Laboratory. Majors must enroll in at least one credit of production laboratory every semester they are in residence. To earn laboratory credit, theatre majors must attend all University mainstage auditions. A maximum of sixteen 7810 credits may count toward requirement for the B.A.

Bachelor of Arts in Theatre Arts

(1) Theatre Arts

The concentration is designed to prepare the student for competency – in all areas of theatre – acting/directing, theatre history/criticism and design/technical theatre in order that the student can acquire the skills to teach theatre, to undertake graduate work in theatre or to undertake professional work in commercial or regional theatre. Consult an adviser.

- General Education Requirement — 42 credits.
- Foreign Language — 14 credits.
- Theatre — 42 credits.
- Required Theatre Arts Courses:

7800:100	Experiencing Theatre	3
7800:106	Introduction to Scenic Design	3
7800:151	Voice and Diction	3
7800:172	Acting I	3
7800:230	History of the Theatre	3
7800:265	Basic Stagecraft	3
7800:271	Directing I	3
7800:330	Dramatic Literature I	3
7800:430	Dramatic Literature II	3

- Required Production/Performance Courses (7810:) — 6 credits.
- Theatre Electives (with approval of advisor) — 9 credits.
- Electives — 30 credits.
- Minimum Semester Hours Required — 128 credits.

Musical Theatre

- General Education requirement — 42 credits.
- Theatre — 44 credits.
- Theatre Core Courses — 23 credits:

7800:107	Introduction to State Costuming	3
7800:145	Movement for Actors	3
7800:151	Voice and Diction	3
7800:172	Acting I	3
7800:321	Musical Theatre History & Literature II	2
7800:330	Dramatic Literature I	3
7800:430	Dramatic Literature II	3
7800:475	Acting for Musical Theatre	3

- Theatre Option — 21 credits:

7800:100	Experiencing Theatre	3
7800:230	History of Theatre	3
7800:262	Stage Makeup	3
7800:265	Basic Stagecraft I	3
7800:271	Directing I	3
7800:351	Advanced Voice and Movement	3
7800:373	Acting II	3

- Dance Core Courses — 13 credits:

7900:119	Modern I: Intro to Modern Dance I	2
7900:124	Ballet I: Intro to Ballet I	2
7900:144	Tap Technique I: Introduction to Tap I	2
7900:130	Jazz Dance I: Intro Jazz Dance I	2
7900:230	Jazz Dance II: Intro Jazz Dance II	2
7920:270	Musical Theatre Dance Technique	3

- Music Core Courses — 17 credits:

7500:101	Intro to Music Theory	2
7500:320	Music Theatre History and Literature I	2
7510:108	Opera Workshop	1
7520:024	Class/Applied Voice (4 semesters) (must include 1 semester of Applied Voice)	8
7520:025	Class/Applied Piano (2 semesters)	4

- Production/Performance Lab — 6 credits.
- General Electives — 8 credits.
- Minimum Semester Hours Required — 130 credits.

7900: Dance

Bachelor of Fine Arts

The B.F.A. dance major is designed for the student who wishes to pursue professional training in dance through an emphasis on ballet technique. The Dance program offers training in technical, performing and choreographic skills, as well as an in-depth knowledge of dance history.

Admission to the program is *by audition only:*

Every student must pass a sophomore jury (7910:200) in ballet and modern technique at the completion of two years of study to be admitted to upper-division standing in the dance area. Students must complete one full year of Ballet VIII: Advanced Technique and Performance Styles, and must be enrolled in ballet technique class each semester.*

- General Education requirement — 42 credits.
- Required dance courses:

7900:115	Dance as an Art Form (Bypass competency exam available)	2
7920:116,7	Physical Analysis for Dance I, II	4
7920:122, 222	Ballet V: Intermediate Principles/ Ballet VI: Advanced Intermediate Technique*	20
7920:228	Modern V: Intermediate Modern Dance A	3
7920:229	Modern VI: Intermediate Modern Dance B	3
7920:316,7	Choreography I, II	4
7920:320	Dance Notation or	2
7920:321	Rhythmic Analysis	2
7920:322, 422	Ballet VII: Principles of Advanced Technique/ Ballet VIII: Advanced Technique and Performance Styles*	20
7920:328	Modern VII: Advanced Modern Dance A	3
7920:329	Modern VIII: Advanced Modern Dance B	3
7920:361	Learning Theory for Dance	2
7920:362	Instructional Strategies for Dance	2
7920:416	Choreography III	2
7920:417	Choreography IV	2
7920:431	Dance History: Prehistory to 1661	2
7920:432	Dance History: 1661 through Diaghilev Era	2
7920:433	Dance History: 20th Century	2
7920:471	Senior Seminar	1

- Electives (with approval of adviser) 7
- 7910:200 Sophomore Jury 0
- All candidates for the B.F.A. will be required to earn at least five credits of 7910: Dance Organizations, one of which must be 7910:112 Dance Production Ensemble.

7910:101	Classical Ballet Ensemble	1
7910:102	Character Ballet Ensemble	1
7910:103	Contemporary Dance Ensemble	1
7910:104	Jazz Dance Ensemble	1
7910:105	Musical Comedy Ensemble	1
7910:106	Opera Dance Ensemble	1
7910:107	Experimental Dance Ensemble	1

* Dance History course taken for requirement does not fulfill this elective.

		Credits
7910:108	Choreographers' Workshop	1
7910:109	Ethnic Dance Ensemble	1
7910:110	Period Dance Ensemble	1
7910:111	Touring Ensemble	1
7910:112	Dance Production Ensemble	1
	Total Dance Curriculum minimum	79

Bachelor of Arts

The B.A. dance major is designed for the student who wishes to pursue dance training through an emphasis on the four major dance idioms of ballet, modern, jazz and tap dance. The program offers adjunctive course work in choreography, history, physical analysis and pedagogy.

Admission to the degree is *by audition only.*

Every student must pass a sophomore jury in ballet, modern, tap, and jazz technique at the completion of two years of study to be admitted to upper-division standing in the dance area. All students are required to study dance technique every semester they are enrolled and must be promoted from Ballet Technique VI: Advanced Intermediate Technique for graduation.

- General Education requirement and foreign language** — 56 credits.
- Required dance courses:

7900:115	Dance as an Art Form	2
7920:116, 7	Physical Analysis for Dance I, II	4
7920:122, 222	Ballet V: Intermediate Principles Ballet VI: Advanced Intermediate Technique	20
7920:228	Modern V: Intermediate Modern Dance A	3
7920:316, 7	Choreography I, II	4
7920:320	Dance Notation or	2
7920:321	Rhythmic Analysis	2
7920:361	Learning Theory for Dance	2
7920:362	Instructional Strategies for Dance	2
7920:471	Senior Seminar	1

- Choose one of the following:

7920:431	Dance History: Prehistory to 1661	2
7920:432	Dance History: 1661 through Diaghilev Era	2
7920:433	Dance History: 20th Century	2

- Choose a minimum of one from each category as dance electives for a minimum of nine credits

Category A

7920:229	Modern VI: Intermediate Modern Dance B	3
7920:328	Modern VII: Advanced Modern Dance A	3
7920:329	Modern VIII: Advanced Modern Dance B	3

Category B

7900:351	Jazz Dance Styles	2
7900:451	Advanced Jazz Dance Styles	2

Category C

7920:246	Intermediate Tap Styles	2
7920:347	Advanced Tap Styles	2

- Choose one category D, E, or F for a total of four credits:

Category D

7920:416	Choreography III	2
7920:417	Choreography IV	2

Category E*

7920:431	Dance History: Prehistory to 1661	2
7920:432	Dance History: 1661 - Diaghilev Era	2
7920:433	Dance History: 20th Century	2

Category F

7920:461	Seminar and Field Experience in Dance Education	2
7920:462	Professional Issues in Dance Education	2

- 7910:200 Sophomore Jury (0 credits)
- All candidates for the B.A. will be required to earn at least four credits of 7910: Dance Organizations, one of which must be 7910:112 Dance Production Ensemble.

7910:101	Classical Ballet Ensemble	1
7910:102	Character Ballet Ensemble	1
7910:103	Contemporary Dance Ensemble	1
7910:104	Jazz Dance Ensemble	1
7910:105	Musical Comedy Ensemble	1
7910:106	Opera Dance Ensemble	1
7910:107	Experimental Dance Ensemble	1
7910:108	Choreographers' Workshop	1
7910:109	Ethnic Dance Ensemble	1
7910:110	Period Dance Ensemble	1
7910:111	Touring Ensemble	1
7910:112	Dance Production Ensemble	1
	Total Dance Curriculum	58
	General Electives	16

** Sign language may be taken in place of a foreign language.

Musical Theatre Degree—B.F.A. in Dance

The Musical Theatre Degree is designed to meet the expanding needs in the entertainment field. The student receives strong dance technical training supported with the skills of singing and acting.

Admission to the degree is *by audition only.*

- General Education requirement — 42 credits
- Dance Courses:

7900:115	Dance as an Art Form	2
7900:130	Jazz Dance I: Introduction to Jazz Dance I	2
7900:144	Tap Technique I: Introduction to Tap I	2
7900:145	Beginning Tap Styles	2
7900:219	Modern III: Intermediate Beginner A	2
7900:220	Modern IV: Intermediate Beginner B	2
7900:230	Jazz Dance II: Introduction to Jazz Dance II	2
7910:101-112	Dance Ensembles (including Dance Production)*	5
7920:116	Physical Analysis for Dance I	2
7920:117	Physical Analysis for Dance II	2
7920:122	Ballet V: Intermediate Principles (2x)	10
7920:228	Modern V: Intermediate Modern Dance A	3
7920:246	Intermediate Tap Styles	2
7920:270	Musical Theatre Dance Techniques	3
7920:316	Choreography I	2
7920:317	Choreography II	2
7920:347	Advanced Tap Styles	2
7920:351	Jazz Dance Styles	2
7920:361	Learning Theory for Dance	2
7920:416	Choreography III	2
7920:417	Choreography IV	2
7920:430	History of Musical Theatre in Dance	2
7920:433	Dance History: 20th Century Dance	2
7920:451	Advanced Jazz Dance Styles	2
7920:471	Senior Seminar	1
	Total Dance Curriculum	62

- Music Courses:

7500:107	Class Voice I	2
7500:320	Musical Theatre History and Literature I	2
7520:124	Applied Voice	2

Three semesters of voice are required, including one semester of applied voice. If a student has sufficient ability and the requisite music reading skills, he/she may study all three semesters at the applied level.

7500:104	Class Piano I and	2
7500:105	Class Piano II or	2
7520:025	Applied Piano (Two semesters of piano study are required for a total of 4 credits)	4
	Total Music Curriculum	12

- Theatre Courses:

7800:151	Voice and Diction	3
7800:172	Acting I	3
7800:262	Stage Makeup	3
7800:475	Acting for Musical Theatre	3
	Total Theatre Curriculum	12

- Preferred Elective:

7510:xxx	Choral Ensemble	
7510:100	Production Lab 1 credit/semester	
7510:110	Performance Lab 1 credit/semester	
7800:145	Movement Training	3
7800:121	Musical Theatre Production	3
7810:100	Production Lab	2
7810:110	Performance Lab	4
	General Electives (with approval of adviser)	5

* All candidates for the Musical Theatre Degree–BFA Dance will be required to earn at least five credits of 7910: Dance Organizations, one of which must be 7910:112 Dance Production Ensemble.

College of Nursing

Cynthia Flynn Capers, Ph.D., R.N., *Dean*
Elaine F. Nichols, Ed.D., R.N., *Associate Dean, Academic Affairs*
Elizabeth S. Kinion, Ed.D., R.N., *Director of Professional Practice and Clinical Scholarship*
Christine A. Wynd, Ph.D., R.N., *Director of Nursing Research and Scholarly Activity*
Sherdene A. Brown, M.Ed., *Director of Student Affairs*

ACCREDITATION

The Baccalaureate nursing program is approved by the Ohio Board of Nursing. The Baccalaureate and Masters programs are fully accredited by the National League for Nursing Accreditation Commission (NLNAC). NLNAC is a resource of information regarding tuition, fees and length of program and can be contacted at 350 Hudson Street, New York, NY 10014, (888) 669-9656, ext. 153.

MISSION

As an integral part of The University of Akron, the College of Nursing promotes the general mission of the University. The college offers diverse and comprehensive nursing education programs at the undergraduate and graduate levels. The programs of study, based on professional standards, prepare individuals to provide nursing care in a variety of settings. The College of Nursing supports nursing research that contributes to the health and well-being of society. The college is committed to serving culturally, racially, and ethnically diverse populations. Through academic and community collaboration the college promotes excellence in nursing education, research, practice, and service.

GOALS

1) Prepare generalist and advanced practice nurses who are eligible for initial licensure and for certification.
2) Provide a foundation for lifelong commitment to professional development and scholarship through continuing education and advanced study at the master's and doctoral levels.
3) Prepare nurses who are sensitive in caring for diverse populations in a variety of settings.
4) Prepare professional practitioners who integrate leadership roles and ethical standards in a continuously changing health care arena and society.

PHILOSOPHY

The College of Nursing faculty believe that the foci of professional nursing are individuals, families and communities.

The individual is seen as a complex whole whose existence involves patterns, dynamic change, transformation and interdependence. The individual interrelates within the environment in biological, psychological, social, spiritual, cultural and other dimensions. The individual is unique and universal. The individual is a thinking, feeling, interacting, evolving, creating, valuing being.

Families are individuals dynamically connected with each other over time in traditional and non-traditional configurations.

Communities are groups of people with one or more common characteristics who are in relationship to one another and may or may not interact.

Health is comparative, dynamic, multidimensional and has personal meaning. It includes disease, nondisease, and quality of life. People have the right to participate in decisions affecting and effecting personal health.

Environment includes all living and nonliving dimensions with which the individual, family and community have interrelationships. The dynamic environmental interrelations define and establish rules for health and modes of action.

Nursing is an art and a science. The discipline of nursing is concerned with individual, family and community and their responses to health within the context of the changing health care environment. Professional nursing includes the appraisal and the enhancement of health. Personal meanings of health are understood in the nursing situation within the context of familial, societal and cultural meanings. The professional nurse uses knowledge from theories and research in nursing and other disciplines in providing nursing care. The role of the nurse involves the exercise of social, cultural and political responsibilities, including accountability for professional actions, provision of quality nursing care, and community involvement.

Education is an individualized, lifelong process. Learning includes the individual's interrelations with the environment, knowledge and skill acquisition, development of critical thinking and self-awareness. Self-expression enables the student to respond to clients who have unique human values and cultural heritage. Each nursing student brings attitudes, beliefs, values, feelings, knowledge and experiences into the learning environment. These variables influence learning that occurs through continual construction and reconstruction of experiences in relation to environmental influences.

Nursing education at the baccalaureate level synthesizes knowledge from nursing, humanities, and social, cultural, physical and natural sciences to operationalize clinical decision-making. The student is prepared to function as a nurse generalist in a variety of settings. Faculty and students continually seek to refine the commitment to and understand the relationship between theory and practice. Students are encouraged to become self-directed, collaborative, interdependent and independent. These variables are the foundation for lifelong learning and professional development.

Nursing education at the master's level builds upon baccalaureate nursing education and provides foundation for doctoral study. Graduate education prepares advanced practice nurses with expertise in critical thinking and decision making, effective communication, and therapeutic interventions. Through a variety of learning experiences, Master of Science in Nursing students analyze and use theoretical formulations and research findings in advanced practice.

REQUIREMENTS

Admission to Baccalaureate Program

Five classifications of students will be considered for admission to the baccalaureate nursing program: 1) the basic student (entering freshmen), 2) the registered nurse, 3) the licensed practical nurse, 4) the postbaccalaureate student and 5) the transfer student from other colleges and universities. The College of Nursing offers separate sequences which provide both the R.N. and L.P.N. with the opportunity to earn a Baccalaureate Degree. These sequences begin nursing courses in the summer.

A transfer student may receive credit for quality work earned in approved colleges. Transfer students entering The University of Akron from an accredited institution must have all course work applicable to the College of Nursing requirements evaluated in writing by the respective University of Akron departments. A copy of the departmental course approval or denial must be contained in the student's file when the student applies for an intercollegiate transfer. Enrollment of a transfer student is contingent upon availability of University facilities and an assessment of the sufficiency of prior academic work. Transfer course grades will be combined with courses taken at The University of Akron when ranking students for College of Nursing admission.

A registered nurse (RN) who receives preparation in a diploma or associate degree program is evaluated individually. A RN/BSN student is expected to meet the same degree requirements as the basic student and those of The University of Akron.

A student who wishes to be considered for admission to the College of Nursing must meet the following requirements:

- Complete all University College requirements and College of Nursing prerequisites with a grade of "C" or higher by the end of spring semester.
- Complete an Intercollegiate Transfer Form with a University College academic adviser during the designated period of the spring semester in the year that the applicant is ready to seek admission.
- Have a minimum 2.50 cumulative college grade-point average.
- All grades of transfer work will be combined with those earned at The University of Akron in the computation of a GPA for admission ranking purposes to the College of Nursing.

Admission Procedures

All applicants will be considered at once and will be selected at the end of each spring semester to start the following fall. All student applicants will be ranked in order from the highest grade-point average (GPA) down until the class is filled. Presently there are 160 students admitted to the basic program. Registered nurse students are not counted with the 160 basic students. Having a GPA of 2.5 will not guarantee admission to the College.

Acceptance of the student into the college is the responsibility of the dean in consultation with the dean of the University College and the Admissions Committee of the College of Nursing. Admission to the program in nursing does not guarantee the student's placement in the nursing courses at the time the student may wish to pursue them. The college reserves the right to approve admission to those individuals whose abilities, attitudes, and character promise satisfactory achievement of the college objectives.

Upon admission to the College, all students must adhere to the following policies and the deadline of July 31:

- Pay the Liability Insurance Fee included in the Fall tuition invoice.
- If a licensed nurse, show valid Ohio license to Records Coordinator.
- Complete required immunizations and physical examination.
- Complete CPR certification prior to starting nursing courses. Maintain current CPR certification throughout the program. Failure to maintain current CPR certification will result in removal from clinical courses.

Written evidence of completion of these requirements must be submitted to the College of Nursing Records Coordinator prior to July 31.

Notification of Admission

Following completion of Spring semester, all applicants will be notified of admission by mid-June. Notification of admission status will be either full admission, placement on a waiting list, or denial due to the filling of the 160 available spaces. A limited number of students who do not receive full admission will be placed on a waiting list. The waiting list exists through the first week of Fall classes.

Reapplication Process

Applications for the College of Nursing are only effective for the current academic year. A student not admitted from the wait list or denied admission may reapply during the next intercollege transfer period. Students reapplying are again ranked in the applicant group for admission consideration.

Transfer of Nursing Courses for Advanced Placement

Policies

- Students wishing to transfer nursing courses from other baccalaureate nursing programs into the College of Nursing at The University of Akron must meet all university transfer requirements and College of Nursing admission criteria.
- Transfer applicants must be in good academic standing and eligible to return in the next term to their previous baccalaureate nursing program.
- Students must have completed all prerequisite courses for the curriculum level into which they seek placement or received university transfer credit for prerequisites.
- Transfer credit for baccalaureate nursing courses taken in another NLN-accredited B.S.N. program may be granted after review and approval of supporting materials by the College of Nursing faculty.
- Courses accepted for transfer will determine the student's placement in the appropriate level of the College of Nursing curriculum.
- Nursing courses for the Associate Degree or Diploma program will not be considered for transfer credit into the basic B.S.N. program.
- Transfer credit will not be granted for nursing coursework completed more than two years prior to application.
- Transfer students will be admitted to the College of Nursing on a space-available basis.

Procedures

1. Contact the College of Nursing, Associate Dean, Undergraduate Program, The University of Akron, Akron, OH 44325-3701, (330) 972-7551.
2. Submit a letter to the Associate Dean, Undergraduate Program, College of Nursing, signed by the Dean/Director on school letterhead from the previous B.S.N. program verifying good academic standing and eligibility to return the next term. This letter must be received in order to begin review of materials.
3. Contact The University of Akron Office of Admissions to initiate general University transfer procedures.
4. Submit a sample program of study, transcripts, and course syllabi to the Associate Dean, Undergraduate Program, by April 1 for Fall semester consideration and by November 1 for Spring Semester admission. These materials will be used by the faculty to determine admission and appropriate placement.
5. Following faculty review and recommendations, the College of Nursing Admissions Committee will determine admission and placement at its December and May meetings.
6. Applicant will receive a letter from the Associate Dean, Undergraduate Program, following the Admissions Committee meeting indicating admission status and, if admitted, the level of placement in the B.S.N. curriculum.

Continuation in the Baccalaureate Program

A student must maintain a grade-point average of 2.30 (C+) or higher on a 4.00 scale in the nursing major to progress and graduate from the College. A student receiving a C- or below in any nursing course (8200) or corequisite course will be required to repeat the course. Only one course repeat is allowed during the nursing program. Students may not progress into the next course with an incomplete or failing grade.

Students should refer to their Student Handbooks for the policies and procedures of the College. Handbooks will be distributed to students upon admission to the College. Students should also refer to each course syllabus distributed at the beginning of each semester for course expectations/requirements.

Requirements for Graduation

- Complete all University requirements as listed in Section 3 of this Bulletin.
- Complete a minimum of 134 semester credits for the degree and earn a minimum of 2.30 grade-point average in the nursing major and a 2.00 grade-point average for all collegiate work attempted at The University of Akron.
- Complete all courses required in the Program of Study for Nursing Students.
- Complete the last 32 credits in the baccalaureate program at The University of Akron.
- Complete all requirements which were in effect at the time of transfer to the College of Nursing.

Basic Baccalaureate Program

Full-time Option

Freshman Year (Prerequisite Courses)		*Credits*
3300:111,112	English Composition I, II	7
5540:120-190	Physical Education	1
3100:130	Principles of Microbiology	3
3150:110, 111	Introduction to General, Organic and Biochemistry I, Lab	4
3150:112, 113	Introduction to General, Organic and Biochemistry II, Lab	4
3750:100	Introduction to Psychology	3
3250:100	Introduction to Economics†	3
	or	
3700:100	Government and Politics in the U.S.†	4
3600:120	Introduction to Ethics	3

† Introduction to Economics or Government and Politics in the U.S., and either Introduction to Sociology or Cultural Anthropology fulfills the General Education Social Science requirements. Oral Communications fulfills the General Education Communication requirement. Basic Statistics or Introductory Statistics I and II fulfills the General Education Mathematics requirement.

Note: Electives. Students may select courses numbered 100 and above as electives. A list of suggested elective courses is available through Academic Advising or the College of Nursing. Electives are not prerequisite for admission to the College.

		Credits
3850:100	Introduction to Sociology†	4
	or	
3870:150	Cultural Anthropology†	4
8200:100	Introduction to Nursing	1
	Electives	2

Transfer to the College of Nursing

Sophomore Year

3100:208,209	Anatomy and Physiology	8
3470:260	Basic Statistics†	3
	or	
3470:261,262	Statistics I, II†	4
3750:230	Developmental Psychology	4
7600:106	Oral Communications†	3
8200:205	College of Nursing Orientation	1
8200:215	Professional Role Development	2
8200:210	Basic Concepts of Nursing	4
8200:220	Foundations of Nursing Practice	5
8200:225	Health Assessment	3

Junior Year

7400:316	Science of Nutrition	4
8200:315	Pathophysiology for Nurses	3
8200:325	Cultural Dimensions in Nursing	2
8200:330	Nursing Pharmacology	3
8200:350	Nursing of Childbearing Families	5
8200:360	Nursing of Adults	5
8200:370	Nursing of Older Adults	5
8200:380	Mental Health Nursing	5

Senior Year

3400:210	Humanities in the Western Tradition I	4
	Humanities Elective	3
	Area Studies/Cultural Diversity Requirement	2
	Area Studies/Cultural Diversity Requirement	2
8200:410	Nursing of Families with Children	5
8200:430	Nursing in Complex/Critical Situations	3
8200:435	Nursing Research	3
8200:440	Nursing of Communities	5
8200:445	Nursing Leadership for Client Care	2
8200:450	Senior Practicum	3
8200:455	Professional Issues	2
	Total minimum credits for graduation:	134

Part-time Option

Prerequisites:

Students interested in the Part-time Option of the Basic Baccalaureate Program may apply for admission to the College of Nursing after completing a total of 57 credits as follows:

3100:130	Principles of Microbiology	3
3100:208,209	Human Anatomy and Physiology	8
3150:110, 111	Introduction to General, Organic and Biochemistry I, Lab	4
3150:112, 113	Introduction to General, Organic and Biochemistry II, Lab	4
3250:100	Introduction to Economics†	3
	or	
3700:100	Government and Politics in the U.S.†	4
3300:111,112	English Composition	7
3400:210	Humanities in the Western Tradition I	4
3470:260	Basic Statistics†	3
	or	
3470:261,262	Introduction Statistics I, II†	4
3600:120	Introduction to Ethics	3
3750:100	Introduction to Psychology	3
3750:230	Developmental Psychology	4
3850:100	Introduction to Sociology†	4
	or	
3870:150	Cultural Anthropology†	4
5540:120-190	Physical Education	1
7600:106	Effective Oral Communication†	4
8200:100	Introduction to Nursing	1
	Electives	2

Sophomore Year

Fall

8200:205	College Orientation	1
8200:215	Professional Role Development	2
8200:210	Basic Concepts of Nursing	4
	or	
8200:220	Foundations of Nursing Practice	5

† Introduction to Economics or Government and Politics in the U.S., and either Introduction to Sociology or Cultural Anthropology fulfills the General Education Social Science requirements. Oral Communications fulfills the General Education Communication requirement. Basic Statistics or Introductory Statistics I and II fulfills the General Education Mathematics requirement.

		Credits
Spring		
8200:210	Basic Concepts of Nursing	4
	or	
8200:220	Foundations of Nursing Practice	5
8200:225	Health Assessment	3
Summer		
7400:316	Science of Nutrition	4
8200:325	Cultural Dimensions in Nursing	2

Junior Year

Fall

8200:315	Pathophysiology	3
8200:350	Nursing of Childbearing Families	5
Spring		
8200:330	Nursing Pharmacology	3
8200:360	Nursing of Adults	5
Summer		
	Humanities Elective	3
	Area Studies/Cultural Diversity Requirement	2

Junior/Senior Year

Fall

8200:370	Nursing of Older Adults	5
8200:380	Mental Health Nursing	5
Spring		
8200:410	Nursing of Families with Children	5
8200:440	Nursing of Communities	5
Summer		
8200:435	Nursing Research	3
	Area Studies/Cultural Diversity Requirement	2

Senior Year

Fall

8200:430	Nursing in Complex/Critical Situations	3
8200:445	Nursing Leadership for Client Care	2
Spring		
8200:450	Senior Practicum	3
8200:455	Professional Issues	2
	Total minimum credits for graduation:	134

R.N./B.S.N. Sequence

(This sequence limited to registered nurse graduates of Associate Degree and Diploma nursing programs.)

Prerequisite Courses

Freshman Year

3300:111,112	English Composition	7
3100:130	Principles of Microbiology	3
3150:110, 111	Introduction to General, Organic and Biochemistry I, Lab	4
3150:112, 113	Introduction to General, Organic and Biochemistry II, Lab	4
3750:xxx	Introduction to Psychology	3
5540:120-190	Physical Education	1
3600:120	Introduction to Ethics	3
3850:100	Introduction to Sociology†	4
	or	
3850:150	Cultural Anthropology†	4

Sophomore Year

3100:208,209	Anatomy & Physiology	8
3250:100	Introduction to Economics†	3
	or	
3700:100	Government and Politics in the U.S.†	4
3750:230	Developmental Psychology	4
7600:106	Oral Communication†	3
3470:260	Basic Statistics†	3
	or	
3470:261,262	Introduction Statistics I, II†	4
	Electives	6-7

Transfer to the College of Nursing

Summer Session Start

8200:336	Concepts of Professional Nursing	4
8200:225	Health Assessment	3
8200:325	Cultural Dimensions in Nursing	3
3400:210	Humanities in the Western Tradition I	4
Fall		
	Area Studies/Cultural Diversity	2
8200:405	Nursing of the Healthy Individual‡	5
8200:440	Nursing of Communities‡	5
8200:435	Nursing Research	3

† Introduction to Economics or Government and Politics in the U.S., and either Introduction to Sociology or Cultural Anthropology fulfills the General Education Social Science requirements. Oral Communications fulfills the General Education Communication requirement. Basic Statistics or Introductory Statistics I and II fulfills the General Education Mathematics requirement.

‡ Courses 8200:405, 415, 440, and 446 are eight weeks in length.

		Credits
Spring		
	Humanities Requirement	3-4
	Area Studies/Cultural Diversity Requirement	2
8200:415	Nursing Care of Individuals with Complex Health Problems‡	5
8200:446	Professional Nursing Leadership‡	5

Note: By-Passed Credit: Upon successful completion of 8200:415 and 446, 34 hours of by-passed credit will be awarded for courses in the basic program. By-pass credit fee charged according to University fee schedule. Total credits for graduation are 134.

LPN/BSN Sequence

Effective for students entering College of Nursing in 1998

Prerequisite Courses: Total of 50-54 credits

3100:130	Principles of Microbiology	3
3100:208, 209	Human Anatomy and Physiology	8
3150:110, 111, 112, 113	Introduction to General, Organic and Biochemistry I, II, Labs	8
3250:100	Introduction to Economics†	3
	or	
3700:100	Government and Politics in the U.S.†	4
3300:111, 112	English Composition I, II	7
3470:260	Basic Statistics	3
3600:120	Introduction to Ethics	3
3750:100	Introduction to Psychology	3
3750:230	Developmental Psychology	4
3850:100	Introduction to Sociology†	4
	or	
3870:150	Cultural Anthropology†	4
5540:120-190	Physical Education	1
	(recommended to be completed prior to College of Nursing admission)	
8200:101	Introduction to Baccalaureate Nursing	1
	Electives	2

LPN/BSN Sequence (continued)

Admission to the College of Nursing

Summer session start

Summer I

Advanced Placement testing to qualify for LPN/BSN Sequence

Summer II

8200:205	College Orientation	1
8200:225	Health Assessment	3
		4

Junior Level

Fall

7400:316	Science of Nutrition	4
8200:350	Nursing of the Childbearing Family	5
8200:360	Nursing Care of Adults	5
8200:315	Pathophysiology for Nurses	3
		17

Spring

8200:325	Cultural Dimensions of Nursing	2
8200:330	Nursing Pharmacology	3
8200:370	Nursing Care of Older Adults	5
8200:380	Mental Health Nursing	5
		15

Senior Level

Fall

3400:210	Humanities in the Western Tradition I	4
8200:410	Nursing Care of Children	5
8200:430	Nursing in Complex and Critical Situations	3
8200:435	Nursing Research	3
8200:445	Leadership for Client Care	2
		17

Spring

8200:430	Nursing of Families with Children	5
8200:440	Nursing of Communities	5
8200:455	Professional Issues	2
3400:385-391	World Civilizations	2
xxxx:xxx	Humanities elective	3
		17
	Total Credits for Graduation:	134

† Introduction to Economics or Government and Politics in the U.S., and either Introduction to Sociology or Cultural Anthropology fulfills the General Education Social Science requirements. Oral Communications fulfills the General Education Communication requirement. Basic Statistics or Introductory Statistics I and II fulfills the General Education Mathematics requirement.

‡ Courses 8200:405, 415, 440, and 446 are eight weeks in length.

LPN/BSN Sequence Policies and Procedures

- LPNs are admitted once per year at the same time as basic students.
- If the LPN chooses not to complete placement testing during Summer I, he/she begins Fall classes in the basic BSN program.
- The following tests are administered during Summer Session I:
  - NLN Mobility Profile I - Books 1 and 2. A fee is charged.
  - Course exams for N210 and N215. Credit by examination fee is charged.
  - Skills testing for N220, N350, N360, N370. No fee is charged.
  - Math Testing for N220. No fee is charged.
  - Further details about advanced placement testing is available from the College and will be provided to students upon admission.
- An LPN must pass all Sophomore Level testing and/or be granted credit for all Sophomore Nursing courses, in order to be admitted to the LPN/BSN Sequence.
- If the LPN has completed the ACCESS to Registered Nursing course offered by a NEMAG-approved school, credit will be given for N101, N215 and N225. (NEMAG stands for Nursing Education Mobility Action Group, a consortium of nursing programs in Northeast Ohio which offer a regionally approved transition course for LPNs entering RN programs.)
- Following successful completion of all testing during Summer Session I and courses in Summer Session II, the LPN/BSN student enters the Junior Level of the BSN program and progresses with all remaining courses to graduation.

Agencies

Some of the agencies which provide clinical experiences for the baccalaureate program are:

Akron General Medical Center	Head Start Center
Akron Health Department	Henry Center for Child Care and Learning
Arbors at Fairlawn	Homeless Outreach Program
Arlington House Elderly Services	Manor Care
Barberton Citizens Hospital	Olsten Kimberly Quality Home Care
Brecksville Veterans Administration Hospital	Pebble Creek Care Center
Chambrel at Montrose	Portage Path Community Mental Health Center
Children's Hospital Medical Center	Rockynol Retirement Community
College of Nursing, Center for Nursing	SUMMA Akron City Hospital
Community Based Corrections Facility	SUMMA St. Thomas Medical Center
Community Support Services	Summit County Health District
Edwin Shaw Hospital	Tri County Home Nurses, Inc.
First American Home Care	University Center for Child Development
Haven of Rest	Visiting Nurse Service, Summit County

Northeastern Ohio Universities College of Medicine

HISTORY AND PURPOSE OF THE COLLEGE OF MEDICINE

The Northeastern Ohio Universities College of Medicine (NEOUCOM) was created by an act of the 100th General Assembly of Ohio and was officially established as a public institution of higher learning on November 23, 1973. The college is governed by a board of trustees appointed by the boards of trustees of The University of Akron, Kent State University and Youngstown State University. All three universities are accredited by the North Central Association of Colleges and Secondary Schools. The college was first accredited by the Liaison Committee on Medical Education of the Association of American Medical Colleges in May 1981, and in 1989 and 1996 received full re-accreditation from the LCME for a seven-year period.

ADMISSION: B.S./M.D.

High school seniors and recent high school graduates, having demonstrated appropriate academic competence and motivation toward a career in medicine, will be considered for admission into the B.S./M.D. program. Students who have not attended college should write to the Office of Admissions, The University of Akron, Akron, OH 44325-2001 for application forms. The deadline for applications is December 15.

ADMISSION: M.D.

Applicants with a traditional college background may be considered by NEOUCOM for admission to the M.D. Program (Phase II). Students should contact the Northeastern Ohio Universities College of Medicine, Rootstown, OH 44272, for further information. Criteria for admission to the M.D. Program include demonstrated proficiency in appropriate coursework, scores from the Medical College Admission Test (MCAT) taken at least one year prior to anticipated fall enrollment date, as well as a commitment to the field of medicine and extracurricular and work activities.

THE B.S./M.D. PROGRAM

The curriculum* requires that the student be enrolled for 11 months in each of six academic years. The first two years (Phase I) are spent at The University of Akron. The course work during this period focuses chiefly on studies in the humanities, social sciences, and all basic premedical sciences but will also include orientation to clinical medicine. Progress through Phase I will be based on academic performance and development of personal maturity appropriate to assumption of professional responsibility. The Phase I Academic Review and Promotion Committee, including University and College of Medicine faculty, will assess these factors and will recommend the Phase I student for promotion and formal admission to Phase II, the medical school.

The first year of study is devoted primarily to the basic medical sciences, e.g., anatomy, physiology, microbiology, etc., and will be conducted at the NEOUCOM campus in Rootstown.

In years two, three and four, the student will develop competence in the clinical aspects of medicine through instruction provided principally at one or more of the associated community hospitals. Successful completion of the six-year program leads to the award of the Bachelor of Science degree by one of the universities and the Doctor of Medicine degree by the College of Medicine.

COST

Normal undergraduate fees will be assessed for Phase I. Fees for Phase II are set by the College of Medicine Board of Trustees and are commensurate with those at publicly supported medical schools elsewhere in this state.

LOCATION

The NEOUCOM campus is located on S.R. #44 in Rootstown just south of the I-76 intersection, across from the Rootstown High School.

* For a description of the requirements for the Bachelor of Science segment of this program, see B.S./M.D. program listed in **Section 4** of this Bulletin under Buchtel College of Arts and Sciences Programs of Instruction.

College of Polymer Science and Polymer Engineering

Frank N. Kelly, Ph.D., *Dean*
Rudolph J. Scavuzzo, Ph.D., *Associate Dean*

Undergraduate Contributions

The College of Polymer Science and Polymer Engineering was formed in 1988 by joining the Department of Polymer Science from the Buchtel College of Arts and Sciences and the Department of Polymer Engineering from the College of Engineering. The College offers both the Master of Science and Doctor of Philosophy graduate degrees in Polymer Science and Polymer Engineering.

There are no undergraduate degree programs in the College; however, the College offers undergraduate elective courses for science and engineering majors as well as one general interest introductory polymer course for all undergraduate university students. Two certificate programs have been developed with the College of Engineering, and these programs are described in this Bulletin under Chemical and Mechanical Engineering (4200 and 4600, respectively).

An undergraduate interdisciplinary program, Mechanical Polymer Engineering, has been organized by the faculties of mechanical and polymer engineering. This new baccalaureate program, leading to a Bachelor of Science in Mechanical Polymer Engineering degree, was initiated in the fall of 1995. The program emphasizes a traditional mechanical engineering background along with eight required polymer engineering courses. In addition, there is a senior design project course that requires polymer engineering. This program is described in the College of Engineering section of this Bulletin under Mechanical Polymer Engineering (4700).

SECTION

5

Minor Areas of Study

Minor Areas of Study

REQUIREMENTS

The University of Akron has approved minor fields of study that may be placed on a student's record when all requirements have been completed.

The following rules apply to all minors:

- The student must complete at least 18 credits. (Note: some minors may require additional credits).
- At least six of the 18 credits must be at the 300/400 level, except where the department does not offer 300/400 level courses.
- A minimum grade-point average of 2.0 in each minor is required.
- A minor may be designated at any time during the student's career up to and including the time the degree clearance is processed.
- A minor will be placed on the student's record only at the time the student receives a baccalaureate degree and only on application.
- Courses for a minor may not be taken credit/non-credit. All credits must be earned (bypassed credit may not be used).
- The student must earn at least nine credits at The University of Akron in courses approved by the faculty granting the minor. Written permission of the dean and the head of the department which grants the minor is required for an exception.
- Courses required for a minor may carry prerequisites, which must be honored before the student may enroll.

ADVISEMENT

Although not required to do so, students are advised to contact faculty in the department(s) in which they may wish to earn minors early in their undergraduate programs.

PROGRAM REQUIREMENTS

(All programs listed in alphabetical order)

Anthropology (Interdisciplinary)

- Required core courses:

		Credits
3870:150	Cultural Anthropology	4
3870:151	Evolution of Man and Culture	4

- Six additional credits of Anthropology courses (3870).
- Six additional credits from the Interdisciplinary Anthropology Program of Study.
- Twenty total credits are required.

Art

Art

- Foundations curriculum need not be completed.
- Prerequisites must be honored.
- Student may complete any department courses except 7100:191.

Art History

- Select from the following:

7100:100	Survey of History of Art I	4
7100:101	Survey of History of Art II	4
7100:300	Art since 1945	3
7100:301	Medieval Art	3
7100:302	Art in Europe during the 17th and 18th Centuries	3
7100:303	Renaissance Art in Italy	3
7100:304	Art in Europe during the 19th Century	3
7100:306	Renaissance Art in Northern Europe	3
7100:400	Art in the U.S. before World War II	3
7100:401	Special Topics in History of Art	3
7100:405	History of Art Symposium	3
7100:498	Special Problems in History of Art	1-3

Ceramics

7100:254	Introduction to Ceramics	3
7100:354	Ceramics II	3
7100:454	Advanced Ceramics	3
	(May be repeated for a total of 15 credits.)	

Computer Imaging

7100:185	Introduction to Computer Graphics	3
7100:285	Electronic Still Imaging	3
7100:383	Multimedia Production	3
7100:385	Computer Modeling and Animation	3
	Six credits from the following:	
7100:489	Any Computer Imaging Special Topics Offerings	1-3

Drawing

- Select from the following:

7100:131	Introduction to Drawing	3
7100:132	Instrument Drawing	3
7100:231	Drawing II	3
7100:233	Life Drawing	3
7100:283	Drawing Techniques	3
7100:331	Drawing III	3
7100:333	Advanced Life Drawing (may be repeated)	3
7100:431	Drawing IV (may be repeated)	3
7100:484	Illustration	3
7100:485	Advanced Illustration (may be repeated)	3

Graphic Design

- Select from the following:

		Credits
7100:184	Graphic Design Principles	3
7100:283	Drawing Techniques	3
7100:288	Typography	3
7100:386	Packaging Design	3
7100:387	Advertising Layout and Design	3
7100:388	Production for Designers	3
7100:480	Advanced Graphic Design	3
7100:482	Corporate Identity	3
7100:483	Graphic Design Presentation	3
7100:484	Illustration	3
7100:485	Advanced Illustration	3
7100:488	Publication Design	3

Illustration

7100:185	Introduction to Computer Graphics	3
7100:283	Drawing Techniques	3
7100:333	Advanced Life Drawing	3
7100:480	Advanced Graphic Design/Illustration Portfolio	3
7100:484	Illustration	3
7100:485	Advanced Illustration	3

(Advanced Illustration must be taken twice for a total of six credits)

Metalsmithing

- Select from the following:

7100:266	Introduction to Metalsmithing	3
7100:268	Color in Metals	3
7100:366	Metalsmithing II	3
7100:368	Color in Metals II	3
7100:466	Advanced Metalsmithing (may be repeated)	3

Painting

- Select from the following:

7100:245	Introduction to Polymer Acrylic Painting	3
7100:246	Introduction to Water Color Painting	3
7100:247	Introduction to Oil Painting	3
7100:248	Introduction to Airbrush Painting	3
7100:249	Figure Painting	3
7100:348	Painting II	3
7100:449	Advanced Painting (may be repeated)	3

NOTE: Painting II must be taken in a medium taken previously at the introductory level. May be repeated for a total of nine credits but limited to a maximum of three credits in any of the three media.

Photography

- Select from the following:

7100:275	Introduction to Photography	3
7100:276	Introduction to Professional Photography	3
7100:370	History of Photography	3
7100:375	Photography II	3
7100:475	Advanced Photography (may be repeated)	3
7100:477	Advanced Photography: Color	3

Printmaking

- Select from the following:

7100:213	Introduction to Lithography	3
7100:214	Introduction to Screen Printing	3
7100:215	Introduction to Relief Printing	3
7100:216	Introduction to Intaglio Printing	3
7100:317	Printmaking II	3
7100:418	Advanced Printmaking	3

Professional Photography

- Required core courses:

7100:185	Introduction to Computer Graphics	3
7100:275	Introduction to Photography	3
7100:276	Introduction to Professional Photography	3
7100:285	Electronic Still Imaging	3
7100:318	Portrait/Fashion Photography	3
7100:320	Illustration/Advertising Photography	3
7100:479	Professional Photographic Practices	3

Sculpture

- Select from the following:

		Credits
7100:222	Introduction to Sculpture	3
7100:254	Introduction to Ceramics	3
	or	
7100:266	Introduction to Metalsmithing	3
7100:321	Figurative Sculpture	3
7100:322	Sculpture II	3
7100:323	Casting	3
7100:422	Advanced Sculpture (may be repeated)	3

Biology

- Total credits required for a minor in biology: 23-24.

3100:111,2	Principles of Biology I, II	8
3100:211	General Genetics	3
3100:217	General Ecology	3
3100:311	Cell Biology	3
	or	
3100:130	Principles of Microbiology	3
	or	
3100:331	Microbiology	4
3100:316	Evolutionary Biology	3
3100:xxx	A 300/400-level course approved by department head	—

Business Administration for Non-Business Majors

- Total credits required for a minor in Business Administration: 18
- Required Courses:

6140:370	Introduction to Finance	3
6200:201	Accounting Concepts and Principles for Business	3
6500:301	Management: Principles and Concepts	3
6600:300	Marketing Principles	3

- Electives: Select 2 courses (6 credits) from the following:

6200:xxx	Any three credit Accountancy course for which the student has the appropriate prerequisites	3
6300:xxx	Any three credit Entrepreneurship course for which the student has the appropriate prerequisites	3
6400:220	The Legal and Social Environment of Business	3
6500:xxx	A 300/400 level course in Management for which the student has the appropriate prerequisites	3
6800:305	International Business	3

Business Management Technology

- Required core courses:

2040:247	Survey of Basic Economics	3
2420:101	Essentials of Marketing Technology	3
2420:103	Essentials of Management Technology	3
2420:202	Personnel Practices	3
2420:211	Basic Accounting I	3
2420:280	Essentials of Business Law	3
2420:xxx	Elective	3

- Choose elective from the following:

2420:170	Business Mathematics	3
	or	
2420:212	Basic Accounting II	3
	or	
2420:243	Survey in Finance	3

Chemistry

- Total credits required for a minor in chemistry: 19-22.
- Core comprised of the following:

		Credits
3150:151	Principles of Chemistry I	3
3150:152	Principles of Chemistry I Laboratory	1
3150:153	Principles of Chemistry II	3
3150:263,4	Organic Chemistry Lecture I, II	6

- An additional six credits from 300/400-level chemistry courses. For example, a pre-med, medical technology, or biology student might take 3150:401,2 Biochemistry (three credits each). An engineering or physics major might select 3150:313,4 Physical Chemistry (three credits each). Analytical or instrumental courses might be attractive to others.
- Chemical engineering majors automatically fulfill the requirements for a minor in chemistry.
- Students who intend to minor in chemistry should seek advice from the Chemistry Department about the 300/400-level courses that would be most relevant to their interests.

Classical Languages

- Total credits required for a minor in classics: 21 credits.

3200:289	Mythology of Ancient Greece	3
3200:313/14	Archaeology of Greece and Rome	6
	or	
3200:361/2	Literature of Greece and Rome	6
3210:303,4	Advanced Greek	6
	or	
3220:303,4	Advanced Latin	6
Electives in Classics	6	

- It is strongly recommended that a minor in classical languages take at least three credits of 3400:307, 308, 313, 317, 318 Ancient History.

Classical Civilization

- Required core courses:

3200:289	Mythology of Ancient Greece	3
3200:313,14	Archaeology of Greece and Rome	6
3200:361,2	Literature of Greece and Rome	6
	Electives in Classics	3

- And select one of the following:

3400:307	Ancient Near East	3
3400:308	Greece	3
3400:313	Eastern Roman Empire	3
3400:317	Roman Republic	3
3400:318	Roman Empire	3

- It is strongly recommended that a minor in classical civilization fulfill the language requirement by taking 3220:121,2,223,4 or 3210:121,2,223,4.

Community Services Technology

- Required core courses:

2040:240	Human Relations	3
2260:100	Introduction to Community Services	3
2260:150	Introduction to Gerontological Services	3
2260:260	Alcohol Use and Abuse	3
2260:240	Chemical Dependency I	3
2260:278	Techniques of Community Work	4

Computer Information Systems

Programming Specialist Option

- Required core courses:

2440:121	Introduction to Logic/Programming	3
2440:140	Internet Tools	3
2440:160	JAVA Programming	3
2440:170	Visual BASIC	3
2440:180	Database Concepts	3
2440:xxx	Computer Information Systems Electives	6

- Electives:

2440:145	Operating Systems	3
2440:210	Client/Server Programming	3
2440:234	Advanced Business Programming	3
2440:235	Current Programming Topics	2
2440:241	Systems Analysis and Design	3
2440:251	Computer Applications Projects	3
2440:256	C++ Programming	3
2440:270	Network Administration	3
2440:272	Network Technologies	2
2440:273	Network Printing	2
2440:274	Network Service and Support	3
2440:275	TCP/IP Fundamentals	2
2440:276	Network Advanced Administration	2
2440:278	Network Directory Design and Implementation	2
2440:290	Special Topics	1-3

Microcomputer Specialist Option

- Required core courses:

2440:121	Introduction to Logic/Programming	3
2440:140	Internet Tools	3
2440:170	Visual BASIC	3
2440:175	Microcomputer Application Support	3
2440:180	Database Concepts	3
2440:xxx	Computer Information Systems Electives	3

- Electives:

2440:145	Operating Systems	3
2440:210	Client/Server Programming	3
2440:235	Current Programming Topics	2
2440:241	Systems Analysis and Design	3
2240:247	Hardware Support	3
2440:257	Microcomputer Projects	3
2440:267	Microcomputer Database Applications	3
2240:268	Network Concepts	2
2440:270	Network Administration	3
2440:272	Network Technologies	2
2440:273	Network Printing	2
2440:274	Network Service and Support	3
2440:275	TCP/IP Fundamentals	2
2440:276	Network Advanced Administration	2
2440:278	Network Directory Design and Implementation	2
2440:290	Special Topics	1-3

Consumer Marketing

- Required courses — 12 credits

6600:300	Marketing Principles	3
6600:355	Buyer Behavior	3
6600:350	Advertising	3
6600:390	Marketing Channels	3

- Elective Courses — 6 credits

6600:305	Essentials of Retailing	3
6600:430	Promotional Campaigns	3
6600:440	Product Planning	3
6600:450	Strategic Retail Management	3
6600:460	Marketing Research	3

Criminal Justice Technology

- Core courses:

2220:100	Introduction to Criminal Justice	3
2220:102	Criminal Law for Police	3
2220:104	Evidence and Criminal Legal Process	3

- Additional courses for general criminal justice minor:

2220:240	Dynamics of Vice Crime and Substance Abuse	3
2220:250	Criminal Case Management	6
2250:260	Administration and Supervision in the Public Service	3

- Additional courses for corrections area of concentration:

3850:100	Introduction to Sociology	4
3850:330	Criminology	3
3850:431	Corrections	3
	or	
3850:429	Probation and Parole	3

- Additional courses for security area of concentration:

2220:101	Introduction to Security	4
2230:104	Fire Investigation Methods	4
2230:204	Fire Hazards Recognition	3
2220:290	Special Topics in Security	3

Dance

- Required core courses:

		Credits
7900:115	Dance as an Art Form	2
7900:119*	Modern I: Introduction to Modern Dance I	2
7900:120*	Modern II: Introduction to Modern Dance II	2
7900:124*	Introduction to Ballet I	2
7900:125*	Introduction to Ballet II	2
7900:224*	Ballet III: Intermediate Beginner A	3
	or	
7900:219*	Modern III: Intermediate Beginner A	2
7900:130*	Introduction to Jazz Dance I	2
	or	
7900:144*	Introduction to Tap Technique I	2
7920:316	Choreography I	2

- Choose one (total of 2 credits):

7920:431	Dance History: Prehistory to 1661	2
7920:432	Dance History: 1661 through Diaghilev Era	2
7920:433	Dance History: Twentieth Century	2

- Choose one (total of 2 credits):

7920:317	Choreography II	2
7920:320	Dance Notation#	2
7920:321	Rhythmic Analysis	2
7920:361	Learning Theory for Dance	2

Economics

- One of the following:

3250:200,201	Principles of Economics	6
3250:244	Introduction to Economics Analysis	3

- One of the following:

3250:400	Intermediate Macroeconomics	3
3250:410	Intermediate Microeconomics	3

- Electives in Economics 9-12
- All students are encouraged to consult with the Undergraduate Student Advisor in the Economics Department about the best choice of coursework. Students are advised to consider taking both 3250:400 Intermediate Macroeconomics and 3250:410 Intermediate Microeconomics. Check bulletin listings or call department about special topics courses (3250:440) offered each semester and summer. Some courses of particular interest are listed below.
- Recommended electives for majors in Mathematical Disciplines:

3250:420	Mathematical Economics I	3
3250:421	Mathematical Economics II	3
3250:426	Econometric Methods and Applications	3
3250:427	Economic Forecasting	3

- Recommended electives for majors in International Business:

3250:450	Comparative Economic Systems	3
3250:460	Economic Development	3
3250:461	Principles of International Economics	3

- Recommended electives for majors in Business:

3250:360	Industrial Organization and Public Policy	3
3250:380	Money and Banking	3
3250:481	Monetary and Banking Policy	3

Labor Economics

- Required:

3250:410	Intermediate Microeconomics	3

- One of the following:

3250:200,201	Principles of Economics	6
3250:244	Introduction to Economic Analysis	3

- Choose at least two of the following:

3250:330	Labor Problems	3
3250:333	Labor Economics	3
3250:430	Labor Market Policy	3
3250:431	Labor and the Government	3
3250:432	The Economics and Practice of Collective Bargaining	3

- Electives in Economics (3-6)

NOTE: All students are encouraged to consult with the Undergraduate Student Advisor in the Economics Department about your best choices of coursework.

*See school director for level placement
#By advisement only.

English

English

Any 18 hours of courses in the English Department (except 111, 112, 250, 251, 252) with at least 6 of those hours at the 300/400 level.

English Literature

Any 18 hours of courses in British literature with at least 6 of those hours at the 300/400 level.

American Literature

Any 18 hours of courses in American literature with at least 6 of those hours at the 300/400 level.

Professional Writing

- Required

		Credits
3300:390,391	Professional Writing I, II (Do not have to be taken in sequence)	6

- One from the following:

3300:376	Legal Writing	3
3300:489	Management Reports	3
3300:489	Science Writing	3

- One departmental linguistics or language course.
- Two additional courses from any of the literature, language or writing offerings in the department.

Creative Writing

- Two introductory courses in creative writing from the following:

3300:277	Introduction to Poetry Writing	3
3300:278	Introduction to Fiction Writing	3
3300:279	Introduction to Script Writing	3

- One advanced course in creative writing from the following:

3300:377	Advanced Poetry Writing	3
3300:378	Advanced Fiction Writing	3
3300:389	Advanced Script Writing	3

- One literature course primarily concerned with modern work.
- Two additional courses from any of the literature or language offerings of the department, which may include a second advanced course in creative writing.

Entrepreneurship

This program prepares potential entrepreneurs from all University majors. It provides students with exposure to entrepreneurial activities and builds critical skills needed for entrepreneurial initiatives. (Courses in this minor may not be subsequently used to satisfy any College of Business Administration core course requirements.)

Total of 18 credits as follows:

- Required:

6300:201	Introduction to Entrepreneurship	3
6300:301	Entrepreneurial Management and Operations (for non-business majors)	3
6300:303	Entrepreneurial Management Issues (for business majors)	1
6300:330	Entrepreneurial Issues in Accounting and Finance	3
6300:360	Entrepreneurial Field Project	3
6300:450	Entrepreneurial Strategic Planning	3

- Electives:

6300:490	Entrepreneurship: Selected Topics	1-3
6300:370	Entrepreneurial Principles and Practices	3
6300:499	Independent Study in Entrepreneurship	1-3

Family and Consumer Sciences

Apparel Design and Construction

7400:123	Fundamentals of Construction	3
7400:225	Textiles	3
7400:305	Advanced Construction & Tailoring	3
7400:311	Studies in Fiber Arts	3
7400:449	Flat Pattern Design	3
7400:xxx	Elective in Fashion Merchandising Area	3

Fashion

7400:139	The Fashion and Furnishings Industries	3
7400:219	Clothing Communication	3
7400:221	Evaluation of Apparel and Household Textiles	3
7400:225	Textiles	3
7400:437	Historic Costume to 1800	3
	or	
7400:438	History of Fashion Since 1780	3
7400:xxx	Elective in Fashion Merchandising Area	3

Family Development

(Prerequisites must be honored.)

		Credits
7400:201	Courtship, Marriage and the Family	3
7400:265	Child Development	3

The remaining 12 credits may be selected from the following:

7400:255	Fatherhood: The Parent Role	3
7400:360	Parent-Child Relations*	3
7400:362	Family Life Management	3
7400:390	Family Relationships in Middle and Later Years	3
7400:401	Family-Life Patterns in Economically Deprived Homes	2
7400:404	Adolescence in the Family Context*	3
7400:440	Family Crisis	3
7400:442	Human Sexuality*	3
7400:445	Public Policy and the American Family	3
7400:496	Parenting Education*	3

Child Development

(Prerequisites must be honored.)

7400:201	Courtship, Marriage and the Family	3
7400:265	Child Development	3

The remaining 12 credits may be selected from the following:

7400:132	Early Childhood Nutrition	2
7400:255	Fatherhood: The Parental Role	3
7400:270	Theory and Guidance of Play	3
7400:280	Creative Activities for Pre-kindergarten Children	4
7400:360	Parent-Child Relations*	3
7400:401	Family-Life Patterns in Economically Deprived Homes	2
7400:404	Adolescents in the Family Context*	3
7400:460	Organization and Supervision of Child-Care Centers	3
7400:496	Parenting Skills*	3

Clinical Nutrition

7400:133	Nutrition Fundamentals	3
7400:328	Nutrition in Medical Science I	4
7400:424	Nutrition in the Life Cycle	3
7400:426	Therapeutic Nutrition*	4
7400:428	Nutrition in Medical Science II	5

Community Nutrition

7400:133	Nutrition Fundamentals	3
7400:424	Nutrition in the Life Cycle	3
7400:426	Therapeutic Nutrition*	4
7400:480	Community Nutrition I	3
7400:482	Community Nutrition II	3
7400:xxx	Elective in Nutrition/Dietetics/Food Science	3

Consumer Services Minor

(Prerequisites must be honored.)

7400:301	Consumer Education	3
7400:302	Consumers of Services	3
7400:303	Children as Consumers	3
7400:362	Family Life Management	3
7400:406	Family Financial Management	3
7400:455	Public Policy and the American Family	3

Food Systems Administration

2280:238	Cost Control Procedures	3
6500:341	Human Resource Management	3
7400:133	Nutrition Fundamentals	3
7400:245	Food Theory and Applications I	3
7400:246	Food Theory and Applications II	3
7400:310	Food Systems Management I	5
7400:315	Food Systems Management I, Clinical	2
7400:413	Food Systems Management II	3

Food Science

(A minimum grade of "C" is required in each course)

7400:245	Food Theory and Application I	3
7400:246	Food Theory and Application II	3
7400:420	Experimental Foods	3
7400:470	The Food Industry: Analysis and Field Study	3
7400:475	Analysis of Food	3

Select at least 3 credits from the following courses:

7400:403	Advanced Food Preparation	3
7400:421	Independent Investigation: Food Science	1-3
7400:474	Cultural Dimensions of Food	3
7400:476	Development in Food Science	3
7400:485	Seminar: (selected topics in Food Science)	3
7400:497	Internship in Food Science	3-5

Finance for Business Majors

The Finance Minor for Business Majors provides an opportunity to earn a recognized study in Finance while completing a major in another department of the College of Business Administration.

- Required Core Courses (9 credits)

		Credits
6400:338	Financial Markets and Institutions	3
6400:343	Investments	3
6400:379	Advanced Business Finance	3

- And Three of the Following Courses (9 credits):

6400:323	International Business Law	3
6400:325	Business and Society	3
6400:332	Personal Financial Planning	3
6400:390	Real Estate Principles: A Value Approach	3
6400:401	Real Estate Investment	3
6400:402	Income Property Appraisal	3
6400:403	Real Estate Finance	3
6400:413	Property and Liability Insurance	3
6400:414	Life and Health Insurance	3
6400:415	Risk Management and Insurance	3
6400:424	Legal Concepts of Real Estate Law: A Managerial Approach	3
6400:436	Commercial Bank Management	3
6400:447	Security and Portfolio Analysis	3
6400:473	Financial Statement Analysis	3
6400:475	Commercial and Consumer Credit Management	3
6400:481	International Business Finance	3
6400:490	Selected Topics in Finance	3
6400:495	Internship in Finance	1-3

Financial Services for Non-Business Majors

The professional opportunities in the financial services areas of banking, insurance, real estate, and financial planning are expanding rapidly. This program provides the non-business major an opportunity to develop career-focused skills in the financial services area.

- Required (9 credits)

6140:331	Personal Finance	3
6140:341	Contemporary Investments	3
6140:370	Introduction to Finance	3

- Electives (9 credits)

6200:410	Taxation for Financial Planning	3
6400:325	Business and Society	3
6400:338	Financial Markets and Institutions	3
6400:390	Real Estate Principles: A Value Approach	3
6400:401	Real Estate Investment	3
6400:402	Income Property Appraisal	3
6400:403	Real Estate Finance	3
6400:413	Property and Liability Insurance	3
6400:414	Life and Health Insurance	3
6400:415	Risk Management and Insurance	3
6400:424	Legal Concepts of Real Estate Law: A Managerial Approach	3
6400:436	Commercial Bank Management	3

Financial Services Program – Real Estate Concentration

A finance major completing the Financial Services Program with at least three of the five courses below (9 credits) will be awarded a Concentration in Real Estate:

		Credits
6400:390	Real Estate Principles: A Value Approach*	3
6400:401	Real Estate Investment	3
6400:402	Income Property Appraisal*	3
6400:403	Real Estate Finance*	3
6400:424	Legal Concepts of Real Estate: A Managerial Approach*	3

6500: Management

The University of Akron was one of the first institutions of higher learning to establish an industrial management curriculum. Important factors in the decision to establish such a program were the location of the University in a major industrial area and the recognition of an emerging educational need.

The emphasis on education for management is the result of several factors. First, managers are becoming increasingly aware that a professional approach to management requires understanding of quantitative methods, the behavioral sciences and the use of computers. Second, the management task is becoming much more complex in terms of the number of activities, volume of work and the broader impact of managerial decisions. Third, the practice of management in any setting requires a measure of specific preparation and qualification.

Events of the past several years have brought about a rapid and sweeping change in the business and industry of our society. The major in industrial management reflects the complex directional problems of firms involved in manufacturing and/or service in a highly competitive and interactive global economy. The curriculum is designed to provide the student with a solid foundation in management. It also allows the student to emphasize a specific area of study by pursuing one of the management options.

The graduate with an industrial management degree finds many employment opportunities with firms in staff, supervisory and other management positions. The graduate possesses, in addition, the required basic understanding for effectively managing facilities, equipment, information and personnel in a variety of activities such as transportation, manufacturing, warehousing, research or institutional management. Also, the graduate has the fundamental preparation to undertake advanced study leading to a master's degree.

To receive the Bachelor of Science in Industrial Management with a major in management, a student must complete the common college Requirements for Graduation, and the requirements of one of the six options listed below:

Human Resource Management Option

Option Requirements:

		Credits
6500:200	Career Orientation: Management	1
6500:310	Business Information Systems	3
6500:341	Human Resource Management	3
6500:342	Labor Relations	3
6500:442	Compensation Management	3
6500:443	Advanced Human Resource Management	3
6500:471	Management Project	3
6500:xxx	Management Elective	3
		22

Production/Operations Management Option

Option Requirements:

6500:200	Career Orientation: Management	1
6500:310	Business Information Systems	3
6500:333	Production and Operations Analysis	3
6500:341	Human Resource Management	3
6500:433	Business Operational Planning	3
6500:434	Production Planning and Control	3
6500:435	Quality Control	3
6500:471	Management Project	3
6500:xxx	Management Elective	3
		25

Materials Management Option

Option Requirements:

		Credits
6500:200	Career Orientation: Management	1
6500:310	Business Information Systems	3
6500:333	Production and Operations Analysis	3
6500:341	Human Resource Management	3
6500:434	Production Planning and Control	3
6500:435	Quality Control	3
6500:471	Management Project	3
6600:370	Purchasing	3
6600:415	Business Logistics	3
6500:xxx	Management Elective	3
		28

Industrial Accounting Option'

Option Requirements:

6500:200	Career Orientation: Management	1
6500:310	Business Information Systems**	3
6500:333	Production and Operations Analysis	3
6500:341	Human Resource Management	3
6500:433	Business Operational Planning	3
6500:434	Production Planning and Control	3
6500:435	Quality Control	3
6500:471	Management Project	3
6200:301	Cost Accounting	3
6200:460	Advanced Managerial Accounting	3
		28

Information Systems Management Option

Option Requirements:

6500:200	Career Orientation: Management	1
6500:310	Business Information Systems	3
6500:324	Data Management for Information Systems	3
6500:325	Analysis and Design of Information Systems	3
6500:333	Production and Operations Analysis	3
6500:341	Human Resource Management	3
6500:425	Decision Support and Expert Systems	3
6500:471	Management Project	3
6500:xxx	Management Elective	3
		25

6600: Marketing

Marketing is concerned with exchange – the process by which individuals or organizations provide or receive anything of value. The American Marketing Association defines marketing as "the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services to create exchanges that satisfy individual and organizational objectives." While marketing was traditionally considered a business function actively practiced only by for-profit corporations, it is now generally accepted that a marketing perspective and the use of marketing techniques can improve the operation of any organization, including not-for-profit organizations, government agencies, and other groups and individuals who were not historically thought to be among the users of marketing concepts and practices.

Given the rather broad and encompassing view of marketing, it is not surprising that a significant proportion of the workforce is employed in some aspect of the various marketing functions and activities. While job opportunities are diverse, some of the more common areas of employment include retail merchandising and management, product development and planning, physical distribution and logistics, marketing communications and advertising, industrial purchasing, and marketing research. In addition, a significant proportion of marketing graduates launch and pursue very successful careers in professional sales and sales management within the business to business sector of the economy. Consequently, the Department of Marketing offers a specialized major in Sales Management in addition to its major in Marketing Management.

Our majors must meet all requirements of 1) the General Education program, 2) the Pre-Business program, 3) the College of Business Administration Core program, 4) the required courses within each program, and 5) the elective courses within each program.

To receive a Bachelor of Science in Business Administration/Marketing degree, the student must select either the Marketing Management Major or the Sales Management Major and successfully complete one or the other of these 26-credit-hour programs.

* 6400:390, 402, 403 and 424 are accepted by the Ohio Real Estate Commission to satisfy course work necessary for the Ohio License requirement.

** 6200:454 may be substituted for 6500:310

Marketing Management Major

Required:

		Credits
6600:293	Career Orientation	1
6600:460	Marketing Research	3
6600:490	Marketing Strategy	3
6600:493	Career Management	1
6600:xxx	Marketing Electives	18
		26

Marketing Electives may not include: 6600:491 Workshop in Marketing or 6600:499 Independent Study in Marketing.

Sales Management Major

Required. Complete all 17 credits:

6600:293	Career Orientation	1
6600:375	Professional Selling	3
6600:460	Marketing Research	3
6600:475	Business Negotiations	3
6600:480	Sales Management	3
6600:490	Marketing Strategy	3
6600:493	Career Management	1

Electives. Select any nine credits:

6600:350	Advertising	3
6600:355	Buyer Behavior	3
6600:370	Purchasing	3
6600:470	Business To Business Marketing	3
6600:496	Internship in Marketing	3
7600:235	Interpersonal Communications	3
7600:252	Persuasion	3
		26

Marketing Electives may not include: 6600:491 Workshop in Marketing or 6600:499 Independent Study in Marketing.

Advertising

Advertising majors can obtain advertising positions with manufacturers, retailers, service and nonprofit organizations, advertising agencies, advertising specialty houses such as market research firms or with such advertising vehicles as newspapers, magazines, radio or television stations, direct mail operations, and telemarketing firms. While the focus of this program is on advertising (the indirect, impersonal communications carried by a mass medium and paid for by an identified sponsor), students will also explore other elements of the "promotional mix" including sales promotions, publicity, personal selling and visual merchandising. Some of the more frequently obtained advertising positions include media buyer, media planner or supervisor, advertising accounts manager, copywriter and creative director, sales representative, and a host of other entry level positions within the promotions field. Advanced career paths in advertising and promotions would involve managerial responsibilities over the above mentioned positions.

An advertising major must meet all requirements of: (1) the General Education Program, (2) the Pre-Business Program, (3) the College of Business Administration Core Courses Program, (4) the Advertising Major Required Courses Program, and (5) the Advertising Major Elective Courses program.

To receive a Bachelor of Science in Business Administration/Advertising degree, the student must successfully complete the following 23 credit hour program:

- Required:

		Credits
6600:293	Career Orientation	1
6600:350	Advertising	3
6600:355	Buyer Behavior	3
6600:425	Advertising Research And Evaluation	3
6600:430	Promotional Campaigns	3
6600:490	Marketing Strategy	3
6600:493	Career Management	1

- Electives: Complete two courses - 6 credits. At least one of the two electives courses must be selected from 3300, 7100, and/or 7600 fields of study.

3300:390	Professional Writing	3
7100:180	Graphic Design	3
6600:375	Professional Selling	3
6600:385	International Marketing	3
6600:440	Product Planning	3
6600:450	Strategic Retail Management	3
6600:480	Sales Management	3
7600:280	Media Production Techniques	3
7600:282	Radio Production	3
7600:283	Television Production	3
7600:387	Radio And Television Writing	3
7600:486	Broadcasting Sales And Management	3

6800: International Business

The dynamic changes in the world's physical, political, economic, and cultural environments are resulting in threats to the well being of both individuals and organizations, as well as creating totally new market opportunities for business firms and enterprises. The challenge is to effectively compete in the global marketplace as it exists today and develops tomorrow. This academic program views international business in the broad context of all business transactions devised and carried out across national borders to satisfy the organizational and personal goals of firms and individuals. International business studies incorporates all of the functional business operations of accounting, finance, management, and marketing; as such, it is an integrative field of study within an international framework. Given the growth and complexity of international business activities and practices, career opportunities are available and rewarding.

The International Business major must complete 1) the General Education program requirements, 2) the Pre-Business program requirements, 3) the College of Business Administration Core requirements, 4) the required courses within the International Business major, and 5) the elective courses within the International Business major.

To receive a Bachelor of Science in Business Administration/International Business, each student must successfully complete all of the course requirements outlined in each of the three required categories and one of the optional categories listed below.

Required Categories:

- International Business Core:

(Complete all courses — 8 credits)

		Credits	
6600:293	Career Orientation	1	
6600:493	Career Management	1	
6800:405	Multinational Corporations	3	
6800:421	International Business Practices	3	**8**

- International Business Courses:

(Complete two courses — 6 credits)

6400:323	International Business Law	3	
6400:481	International Business Finance	3	
6500:457	International Management	3	
6600:385	International Marketing	3	
6800:495	Internship in International Business	1-3	
6800:496	Special Topics in International Business	1-3	**6**

- International Geography Core:

(Complete one course — 3 credits)

3350:320	Economic Geography	3	
3350:353	Latin America	3	
3350:356	Europe	3	
3350:358	Russia and Associated States	3	
3350:360	Asia	3	
3350:363	Africa South of the Sahara	3	**3**
Subtotal:			**17**

Global Interdisciplinary Option:

(Complete three courses — 9 credits)

3250:450	Comparative Economic Systems	3	
3250:460	Economic Development & Planning For Underdeveloped Nations	3	
3250:461	Principles of International Economics	3	
3350:450	Development Planning	3	
3700:300	Comparative Politics	4	
3700:310	International Politics And Institutions	4	
3700:321	Western European Politics	3	
3700:322	Politics of Post-Communist States	3	
3700:323	Politics of China and Japan	3	
3700:312	The Politics Of International Trade And Money	3	
3700:326	Politics Of Development Nations	3	
3870:270	Cultures of the World	3	**9**
Total with Interdisciplinary Option:			**26**

Foreign Language Option:

(Complete One Language Sequence — 11 credits)

3520:xxx	French Language		
3520:101	Beginning French I	4	
3520:102	Beginning French II	4	
3520:201	Intermediate French I	3	
3530:xxx	German Language		
3530:101	Beginning German I	4	
3530:102	Beginning German II	4	
3530:201	Intermediate German I	3	
3550:xxx	Italian Language		
3550:101	Beginning Italian I	4	
3550:102	Beginning Italian II	4	
3550:201	Intermediate Italian I	3	
3570:xxx	Russian Language		
3570:101	Beginning Russian I	4	
3570:102	Beginning Russian II	4	
3570:201	Intermediate Russian I	3	
3580:xxx	Spanish Language		
3580:101	Beginning Spanish I	4	
3580:102	Beginning Spanish II	4	
3580:201	Intermediate Spanish I	3	**11**
Total with Foreign Language Option:			**28**

College of Fine and Applied Arts

Mark Auburn, Ph.D., *Interim Dean*
John Bee, Ph.D., *Interim Associate Dean*
William Seaton, Ph.D., *Associate Dean*

OBJECTIVES

The purpose of the College of Fine and Applied Arts is to further the objectives of the University by providing a quality program of undergraduate and graduate education with artistic, technological, clinical performance, research and studio experience in the fine and applied arts, as well as:

- To maintain curricula for the preparation of a student majoring in these areas.
- To prepare a student for graduate study and career opportunities on a professional competence level.
- To provide instruction designed to meet specific curricular needs of all the colleges of the University.
- To serve the elective interests of the student seeking diversity and enrichment in academic programs.
- To encourage the development of technical knowledge and professional skills which underlie the communicative functions of human expression.
- To nurture and expand, through this congregation of the arts, not only a knowledge of creative and cultural heritage but also a perceptual and aesthetic awareness of direct sensory experience through creation and performance.

The college recommends each student for the appropriate bachelor's or master's degree in accordance with the student's specialization.

COLLEGE REQUIREMENTS

Requirements for Admission

To be admitted to the College of Fine and Applied Arts, the student must have completed at least 30 credits of work with at least a 2.30 grade-point average or above and have the approval of the dean. A student transferring to the School of Art from another institution must submit a portfolio of work for approval before admission. A student transferring from another college or institution into the music program must submit to a placement examination and an audition. The longer and more professionally oriented programs should be started during the first or second year when the student is still under the guidance of the Office of Academic Advising. The shorter majors need not be declared before the student is ready for transfer to the college. At the time of admission to the college, the student is assigned an adviser by the Director of the School.

Requirements for Baccalaureate Degrees

- Compliance with University requirements, **Section 3** of this Bulletin.
- Completion of a major program of instruction (see below).
- Electives consisting of courses offered for credit in the University's four-year degree programs, provided that the prerequisites as set forth in this Bulletin are met, and further provided that not more than two credits of physical education activities, eight credits of applied music or four credits of music organizations are included. (Credit limitations on applied music and music organizations do not apply to the Bachelor of Music degree.) While credits from another institution or college may be accepted, application toward graduation will depend upon the nature of the student's program of study.
- The recommendation of the director of the student's major school.
- Demonstrated ability to use English. One other language may be required depending upon the degree program.

Degrees

The following baccalaureate degrees are granted in the College of Fine and Applied Arts:

Bachelor of Arts in Studio Art, Art History
Bachelor of Fine Arts in Studio Art (Ceramics, Drawing, Graphic Design, Metalsmithing, Painting, Photography, Printmaking, Sculpture)
Bachelor of Arts: Family and Child Development, Food Science, Pre-Kindergarten, Child-Life Specialist
Bachelor of Arts in Fashion Merchandising: Apparel, Home Furnishings, and Fiber Arts tracks
Bachelor of Arts in Interior Design
Bachelor of Science in Dietetics
Bachelor of Science in Home Economics Education
Bachelor of Arts in Music
Bachelor of Music in Performance, History and Literature, Theory/Composition, Jazz Studies, and Music Education
Bachelor of Arts in Communication
Bachelor of Arts in Business and Organizational Communication, Communication/Rhetoric, Mass Media-Communication
Bachelor of Arts in Speech-Language Pathology and Audiology
Bachelor of Arts in Social Work
Bachelor of Arts/Social Work
Bachelor of Arts in Theatre Arts
Bachelor of Arts in Theatre Arts-Musical Theatre
Bachelor of Arts in Dance
Bachelor of Fine Arts in Dance
Bachelor of Fine Arts in Dance-Musical Theatre

Graduation Requirements

A student must earn a major in a school of the college. A major consists of 24 to 62 credits in addition to the required General Education and, in the case of the Bachelor of Arts degree, foreign language courses. Part or all of these credits may be taken in specifically required courses depending upon the major. The exact requirements for each major will be found on the following pages in the section headed "Programs of Instruction."

Minor Areas of Study

For an explanation of minor areas of study in the College of Fine and Applied Arts, see **Section 5** of this Bulletin.

PROGRAMS OF INSTRUCTION

7100: Art

Bachelor of Arts

- Two years of a foreign language as required by major.
- Completion of studio or art history option as required by major.
- Electives — 6-25 credits.
- 7100:100 Survey of History of Art I, 7100:101 Survey of History of Art II, 7100:210 Visual Arts Awareness (included in General Education), and elective art history course(s) as required by major.

Studio Art Option

- General Education (including 7100:210 Visual Arts Awareness) — 42 credits
- Completion of the second year of a foreign language or the following courses in American Sign Language — 14 credits:

		Credits
7700:101	Beginning Sign Language I	3
7700:102	Beginning Sign Language II	3
7700:201	Intermediate Sign Language	3
7700:202	Advanced Sign Language	3
7700:222	Survey of Deaf Culture in America	2

- Studio art coursework, including one course in each of six different areas of emphasis: e.g., printmaking, sculpture — 41 credits.
- Survey of History of Art I and II (7100:100,101) plus one additional advanced-level art history course — 11 credits.

History of Art Option (Second-year of a foreign language required)

- General Education (including 7100:210 Visual Arts Awareness) and second year of a foreign language — 56 credits
- History of art including 7100:100,101 Survey of History of Art I and II, one history of art symposium, one special problems in history of art course, one special topics in history of art — 38 credits.
- Studio art course work to include at least four different areas of emphasis: e.g., painting, photography (7100:275 recommended) — 12 credits.

Art Education Options

B.A. in Art Studio with Certification in K-12 Art Education

- General Education requirement — 39 credits.
- Art Studio Courses — 42 credits.

		Credits
7100:121	Three-Dimensional Design	3
7100:131	Introduction to Drawing	3
7100:144	Two-Dimensional Design	3
7100:222	Introduction to Sculpture	3
7100:233	Life Drawing	3
7100:244	Color Concepts	3
7100:213, 4, 5	Introduction to Lithography, Screen, or Relief Printing	3
7100:245, 6, 7	Introduction to Polymer Acrylic, Watercolor, or Oil Painting	3
7100:254	Introduction to Ceramics	3
	or	
7100:266	Introduction to Metalsmithing	3
7100:275	Introduction to Photography	3
	Art Studio electives beyond the introductory level	12

- Art History Courses — 19 credits.

7100:100	Survey of History of Art I	4
7100:101	Survey of History of Art II	4
7100:210	Visual Arts Awareness	3
7100:300	Art Since 1945	3
7100:401	Museology	2
3600:350	Philosophy of Art	3

- Professional education (including student teaching) — 41 credits.

Note: The National Teacher Exam (NTE) is required for certification. Students must take the general knowledge, professional knowledge, and art education segments of the NTE.

B.A. in Art Studio with Certification in 7-12 Art Education

- General Education requirement — 39 credits.
- Art Studio Courses — 42 credits.

7100:121	Three-Dimensional Design	3
7100:131	Introduction to Drawing	3
7100:144	Two-Dimensional Design	3
7100:222	Introduction to Sculpture	3
7100:233	Life Drawing	3
7100:244	Color Concepts	3
7100:213, 4, 5	Introduction to Lithography, Screen, or Relief Printing	3
7100:245, 6, 7	Introduction to Polymer Acrylic, Watercolor, or Oil Painting	3
7100:254	Introduction to Ceramics	3
	or	
7100:266	Introduction to Metalsmithing	3
7100:275	Introduction to Photography	3
	Art Studio electives beyond the introductory level	12

- Art History Courses — 19 credits.

7100:100	Survey of History of Art I	4
7100:101	Survey of History of Art II	4
7100:210	Visual Arts Awareness	3
7100:300	Art Since 1945	3
7100:401	Museology	2
3600:350	Philosophy of Art	3

- Professional education (including student teaching) — 36 credits.

Note: The National Teacher Exam (NTE) is required for certification. Students must take the general knowledge, professional knowledge, and art education segments of the NTE.

B.A. in Art History with Certification in K-12 Art Education

- General Education requirement — 39 credits.
- Art Studio Courses — 39 credits.

7100:121	Three-Dimensional Design	3
7100:131	Introduction to Drawing	3
7100:144	Two-Dimensional Design	3
7100:222	Introduction to Sculpture	3
7100:233	Life Drawing	3
7100:244	Color Concepts	3
7100:213, 4, 5	Introduction to Lithography, Screen, or Relief Printing	3
7100:245, 6, 7	Introduction to Polymer Acrylic, Watercolor, or Oil Painting	3
7100:254	Introduction to Ceramics	3
	or	
7100:266	Introduction to Metalsmithing	3
7100:275	Introduction to Photography	3
	Art Studio electives beyond the introductory level	9

- Art History Courses — 46 credits.

7100:100	Survey of History of Art I	4
7100:101	Survey of History of Art II	4
7100:210	Visual Arts Awareness	3
7100:300	Art Since 1945	3
7100:401	Museology	2
3600:350	Philosophy of Art	3
	Other Art History courses as required by major	27

- Professional education (including student teaching) — 41 credits.

Note: The National Teacher Exam (NTE) is required for certification. Students must take the general knowledge, professional knowledge, and art education segments of the NTE.

B.A. in Art History with Certification in 7-12 Art Education

- General Education requirement — 39 credits.
- Art Studio Courses — 39 credits.

7100:121	Three-Dimensional Design	3
7100:131	Introduction to Drawing	3
7100:144	Two-Dimensional Design	3
7100:222	Introduction to Sculpture	3
7100:233	Life Drawing	3
7100:244	Color Concepts	3
7100:213, 4, or 5	Introduction to Lithography, Screen, or Relief Printing	3
7100:245, 6, or 7	Introduction to Polymer Acrylic, Watercolor, or Oil Painting	3
7100:254	Introduction to Ceramics	3
	or	
7100:266	Introduction to Metalsmithing	3
7100:275	Introduction to Photography	3
	Art Studio electives beyond the introductory level	9

- Art History Courses — 46 credits.

7100:100	Survey of History of Art I	4
7100:101	Survey of History of Art II	4
7100:210	Visual Arts Awareness	3
7100:300	Art Since 1945	3
7100:401	Museology	2
3600:350	Philosophy of Art	3
	Other Art History courses as required by major	27

- Professional education (including student teaching) — 36 credits.

Note: The National Teacher Exam (NTE) is required for certification. Students must take the general knowledge, professional knowledge, and art education segments of the NTE.

Bachelor of Fine Arts

- General Education requirement — 42 credits.
- Foundations Curriculum in Art

7100:100	Survey of History of Art I	4
7100:101	Survey of History of Art II	4
7100:121	Three-Dimensional Design	3
7100:131	Introduction to Drawing	3
7100:144	Two-Dimensional Design	3
7100:233	Life Drawing	3
7100:250	Portfolio Review	0
7100:210	Visual Arts Awareness	3

- Electives — 6-9 credits.
- Two advanced-level art history courses (one for graphic design emphasis students).
- Senior exhibition
- Portfolio review as specified for student's area of emphasis.
- Studio art courses must include one area of major emphasis as described below, plus studio electives to equal no less than 68 credits.

Ceramics

7100:222	Introduction to Sculpture	3
7100:231	Drawing II	3
7100:254	Ceramics I	3
7100:354	Ceramics II	3
7100:454	Advanced Ceramics (to be repeated)	15
7100:456	Ceramics Portfolio Review	0
7100:495	Senior Exhibition	0

Fire Protection

2230:100	Introduction to Fire Protection	3
2230:102	Fire Safety in Building Design and Construction	3
2230:104	Fire Investigation Methods	4
2230:153	Principles of Fire Protection and Life Safety	3
2230:204	Fire Hazards Recognition	3
2230:205	Fire Detection and Suppression Systems I	3

Geography and Planning

General Geography

3350:305	Maps and Map Reading	3
3350:310	Physical and Environmental Geography	3
3350:320	Economic Geography	3
3350:330	Rural and Urban Settlement	3

- The remaining six credits are to be selected from any geography offerings, except 3350:100.

Planning

- Students must complete 19 semester credits of course work as follows:

		Credits
3350:385	Planning Seminar	1
3350:433	Introduction to Planning	3
3350:495	Soil and Water Field Studies	3

- At least two courses (six credits) from the following:

3350:335	Recreation Resource Planning	3
3350:422	Transportation System Planning	3
3350:428	Industrial and Commercial Site Location	3
3350:436	Urban Land Use Analysis	3

- At least two courses (six credits) from the following:

3350:340	Cartography	3
3350:405	Geographic Information Systems	3
3350:447	Introduction to Remote Sensing	3
3350:483	Spatial Analysis	3
3350:496	Field Research Methods	3

Cartography

- At least five courses (15 credits) from:

3350:340	Cartography	3
3350:405	Geographic Information Systems	3
3350:442	Thematic Cartography	3
3350:444	Applications in Cartography and Geographic Information Systems	3
3350:447	Introduction to Remote Sensing	3
3350:448	Advanced Cartography	3
3350:449	Advanced Remote Sensing	3

- At least one course (three credits) from:

3350:481	Research Methods in Geography and Planning	3
3350:483	Spatial Analysis	3
3350:496	Field Research Methods	3

Geology

- Minimum of 20 credits of departmental courses; 17 of which must be in courses having a laboratory.
- At least six credits must be at the 300/400 level.
- Student should consult with the Director of Undergraduate Studies in the Geology Department for minors.

History

- Twelve of the 18 credits must be at the upper-division level (300/400). A combination of courses in United States and non-United States history is required.
- A student may work primarily in United States history, European, Medieval, Latin American and the like, provided in both cases there is some combination or distribution between United States and non-United States history.

7400:303	Children as Consumers	3
7400:362	Family Life Management	3
7400:406	Family Financial Management	3
7400:455	Public Policy and the American Family	3

Hospitality Management

Restaurant Management

		Credits
2280:120	Safety and Sanitation	3
2280:121	Fundamentals of Food Preparation I	4
2280:160	Wine and Beverage Service	3
2280:232	Dining Room Service and Training	2
2280:233	Restaurant Operations and Food Management	4
2280:245	Menu, Purchasing and Cost Control	4

Culinary Arts

2280:101	Introduction to Hospitality	3
2280:120	Safety and Sanitation	3
2280:121	Fundamentals of Food Preparation I	4
2280:122	Fundamentals of Food Preparation II	4
2280:160	Wine and Beverage Service	3
2280:230	Advanced Food Preparation	4
2280:232	Dining Room Service and Training	2
2280:233	Restaurant Operations and Food Manegement	4
2280:245	Menu, Purchasing and Cost Control	3
2280:261	Baking and Classical Desserts	3

Hotel/Motel Management

2280:120	Safety and Sanitation	3
2280:232	Dining Room Service and Training	2
2280:240	System Management and Personnel	3
2280:245	Menu, Purchasing and Cost Control	4
2280:256	Hospitality Law	3
2280:268	Revenue Centers	3
2280:278	Hotel Catering and Marketing	3

International Business

The International Business Minor is a program for students who are interested in having sufficient understanding of international business and its environments without having to study a functional area of business administration. Students in the International Business Minor are eligible to participate in the business administration foreign exchange programs. Courses offered through The University of Akron foreign business partner schools may substitute for both electives and one required course.

- Required: Complete all courses – 12 credits

6600:300	Marketing Principles	3
6600:385	International Marketing	3
6800:305	International Business	3
6800:405	Multinational Corporations	3

- Electives: Complete two (2) courses – 6 credits

3250:450	Comparative Economic Systems	3
3250:461	Principles of International Economics	3
3700:300	Comparative Politics	4
3700:312	Politics of International Trade and Money	3
6400:323	International Business Law	3
6400:481	International Business Finance	3
6500:457	International Management	3
6800:421	International Business Practices	3
6800:495	Internship for International Business	1-3
6800:496	Special Topics in International Business	1-3

Management

- Total credits required for a minor in Management: 18

6500:301	Management: Principles and Concepts	3
6500:310	Business Information Systems	3
6500:330	Principles of Operations Management	3
6500:341	Human Resource Management	3
6500:3XX or 4XX	Management Electives	6

Marketing and Sales Technology

		Credits
2520:103	Principles of Advertising	3
2520:106	Visual Promotion	3
2520:202	Retailing Fundamentals	3
2520:211	Math of Retail Distribution	3
2520:212	Principles of Sales	3

and any TWO of the following:

2520:215	Advertising Projects	2
2520:217	Merchandising Projects	2
2520:219	Sales Projects	2
2520:221	AAF Ad Campaign I	2
2520:222	AAF Ad Campaign II	2
2520:234	Humor in Advertising	2

- To be awarded only at the time a student receives a baccalaureate degree.

Mathematical Sciences

- Total credits required for minors are as follows:

Mathematics/Applied Mathematics	24-25
Statistics	25
Computer Science	28

Mathematics/Applied Mathematics

Option A (24 credits)

3450:221,2,3	Analytic Geometry-Calculus I, II, III	12
3450:312	Linear Algebra	3

- Approved 300/400-level mathematical sciences electives (at least six credits in 3450 courses which may include 3450:235 Differential Equations.) 9

Option B (24-25 credits)

3450:215, 216	Concepts of Calculus I, II	8
	or	
3450:221,2	Analytic Geometry-Calculus I, II	8
3450:312	Linear Algebra	3
3470:461	Applied Statistics I	4
	or	
3470:460	Statistical Methods	4

- Approved 300/400-level mathematics or statistics electives 9

OR

- Analytical Geometry-Calculus III (permission requires a grade of at least B in 3450:216) plus 6 credits of approved 300/400-level mathematics or statistics electives (which may include 3450:235 Differential Equations). 10

Statistics

3450:221,2	Analytic Geometry-Calculus I, II	8
3450:312	Linear Algebra	3
3470:461,2	Applied Statistics I, II	8
	Approved 400-level statistics electives:	6

Computer Science

3450:208	Introduction to Discrete Mathematics	4
3450:221	Analytic Geometry-Calculus I	4
	or	
3450:215	Concepts of Calculus I	4
3460:209	Introduction to Computer Science	4
3460:210	Data Structures and Algorithms I	4
3460:316	Data Structures and Algorithms II	3
3460:306	Assembly Language Programming	3
Approved 300/400-level computer science electives.		6

Military Studies: Aerospace Studies

1500:113	First Year Aerospace Studies	1.5
1500:114	First Year Aerospace Studies	1.5
1500:253	Second Year Aerospace Studies	1.5
1500:254	Second Year Aerospace Studies	1.5
1500:303	Third Year Aerospace Studies	3
1500:304	Third Year Aerospace Studies	3
1500:453	Fourth Year Aerospace Studies	3
1500:454	Fourth Year Aerospace Studies	3

Military Studies: Military Science

		Credits
1600:100	Introduction to Military Science I	2
1600:101	Introduction to Military Science II	2
1600:200	Basic Military Leadership	2
1600:201	Small Unit Operations	2
1600:300	Advanced Leadership I	3
1600:301	Advanced Leadership II	3
1600:400	Military Management I	3
1600:401	Military Management II	3

Modern Languages

French, German, Spanish, or Italian

A minimum of 18 credits is required.

The student must have at least 12 credits beyond the second year excluding courses which are not counted for credit toward a major.

Music

Jazz Studies

7500:210	Jazz Improvisation I	2
7500:211	Jazz Improvisation II	2
7500:212	Music Industry Survey	2
7500:307	Technique of State Band Performance and Direction	2
7500:308	Jazz History and Literature	3
7500:497	Elective in Jazz (see director of Jazz Studies)	2
7510:115	Jazz Ensemble	4
7520:xxx	Applied Jazz Study	8

Music

7500:151	Theory I	3
7500:152	Theory II	3
7500:154	Music Literature I	2
7500:155	Music Literature II	2
7500:xxx	Music Elective (Selected from any 7500 course at 300 or 400 level)	2
7510:xxx	Music Organization (four semesters in a major conducted ensemble)	4
7520:xxx	Applied Music	8
	(This eight-credit requirement must be satisfied in four separate semesters. In order to complete the Minor in Music, the student must successfully jury to the "200" level.)	

Office Administration

General Secretarial - 19 credits

2440:103	Software Fundamentals	2
2440:125	Spreadsheet Software	2
2540:121	Introduction to Office Procedures	3
2540:129	Information/Records Management	3
2540:151	Intermediate Word Processing	3
2540:253	Advanced Word Processing	3
2540:281	Editing/Proofreading/Transcription	3

Word Processing - 20 credits

2440:103	Software Fundamentals	2
2440:120	Computer and Software Fundamentals	2
2440:125	Spreadsheet Software	2
2540:151	Intermediate Word Processing	3
2540:253	Advanced Word Processing	3
2540:270	Office Software Applications	4
2540:271	Desktop Publishing	3
2540:281	Editing/Proofreading/Transcription	3

Philosophy

Requirements

- A total of 18 semester credits in philosophy including: (a) at least three semester credits at the introductory level (introduction to philosophy, logic or ethics); and(b) at least six semester credits at the 300/400 level.
- Students may select courses related to their major area of study.

Minors

Major Area	*Philosophy Courses*
Arts	Philosophy of Art
Humanities	History of Philosophy
Natural sciences	Philosophy of Science
Computer sciences/mathematics	Philosophy of Mathematics
Law	Philosophy of Law
Business	Business Ethics
Teaching	Philosophy of Education
Theology	Philosophy of Religion
Political science	Political Philosophy
Communication/journalism	Philosophy of Language
Social work	Social Philosophy
Health professions	Biomedical Ethics
Technical writing	Philosophy of Language
Engineering	Philosophy of Technology

- Other minors in philosophy may be designed with the approval of the Department of Philosophy.
- Students should consult with the Department of Philosophy for courses appropriate to their minors.

Examples

- Examples of courses available for students majoring in arts, humanities and natural sciences follow:

Arts (Philosophy of Art)

3600:120 Ethics
3600:350 Philosophy of Art
3600:211, 312,13 History of Philosophy
3600:481/581 Philosophy of Language
3600:232 Philosophy of Religion
3600:424/524 Existentialism
3600:426/526 Phenomenology

Humanities (Philosophy)

3600:120 Ethics
3600:170, 374 Logic
3600:211, 312,13 History of Philosophy
3600:350 Philosophy of Art
3600:462/562 Theory of Knowledge
3600:481/581 Philosophy of Language
3600:424/524 Existentialism
3600:426/526 Phenomenology
3600:471/571 Metaphysics

Natural Sciences (Philosophy of Science)

3600:120 Ethics
3600:170, 374 Logic
3600:464/564 Philosophy of Science
3600:418/518 Analytic Philosophy
3600:471/571 Metaphysics
3600:426/526 Phenomenology
3600:462/562 Theory of Knowledge
3600:211 History of Ancient Philosophy
3600:462/562 Theory of Knowledge
3600:211 History of Ancient Philosophy

Physics*

- Required for all students:

		Credits
3650:291,2	Elementary Classical Physics I, II **	8
3650:301	Elementary Modern Physics	3
3650:3xx	Electives	7

- Recommended electives:

3650:310	Electronics and Measurement Techniques	3
3650:320	Waves	3
3650:322,3	Intermediate Laboratory I, II	6
3650:331	Intermediate Astronomy	3
3650:340	Thermal Physics	3
3650:350	Modeling and Simulation	3

Political Science

- Each student shall complete at least nine of the required credits in 300/400-level course work in political science.
- A student may select a minor concentration from one of the five following course sequences.

American Politics

3700:100	Government and Politics in the United States	4
Fourteen credits from the following:		
3700:210	State and Local Government and Politics	3
3700:341	The American Congress	3
3700:342	Minority Group Politics	3
3700:350	The American Presidency	3
3700:360	The Judicial Process	3
3700:370	Public Administration: Concepts and Practices	4
3700:380	Urban Politics and Policies	4
3700:395	Internship in Government and Politics#	2-9
3700:402	Politics and the Media	3
3700:440	Survey Research Methods	3
3700:470	Campaign Management I	3
3700:471	Campaign Management II	3
3700:472	Campaign Finance	3
3700:474	Political Opinion, Behavior and Electoral Politics	3
3700:475	American Interest Groups	3
3700:476	American Political Parties	3

Comparative Politics

3700:150	World Politics and Governments	3
3700:300	Comparative Politics	4
Eleven additional credits from the following:		
3700:304	Modern Political Thought	3
3700:320	Britain and the Commonwealth	3
3700:321	Western European Politics	3
3700:322	Politics of Post-Communist States	3
3700:323	Politics of China and Japan	3
3700:326	Politics of Developing Nations	3
3700:327	African Politics	3
3700:405	Politics in the Middle East	3
3700:425	Latin American Politics	3

International Politics

3700:150	World Politics and Government	3
3700:310	International Politics and Institutions	4
3700:415	Comparative Foreign Policy	3
Eight additional credits from the following:		
3700:220	American Foreign Policy	3
3700:300	Comparative Politics	4
3700:304	Modern Political Thought	3
3700:312	The Politics of International Trade and Money	3
3700:320	Britain and the Commonwealth	3
3700:321	Western European Politics	3
3700:322	Politics of Post-Communist States	3
3700:323	Politics of China and Japan	3
3700:326	Politics of Developing Nations	3
3700:327	African Politics	3
3700:405	Politics in the Middle East	3
3700:410	International Defense Policy	3
3700:425	Latin American Politics	3

* Courses not applicable to the minor in physics without written permission by a faculty committee are 3650:399, 488, 490, 497 and 498.

**3650:261,2, Physics for the Life Sciences, may be substituted for 3650:291,2, in whole or in part.

A maximum of three internship credits can be applied to minor degree

Interdisciplinary and Certificate Programs of Study

OVERVIEW

To add to the dimensions of the traditional disciplines, the University has established interdisciplinary and interdepartmental programs of study. In addition to a major, the student may elect to pursue one of these programs.

Interdisciplinary Studies programs feature courses which integrate and analyze issues and concepts from more than one field. The goal of this type of study is to place knowledge into a greater perspective than would be possible through any one traditional field. This is accomplished by taking courses from a variety of departments as well as courses which may be team taught. Interdisciplinary Studies and certificate programs will include coursework designated as 1800:.

Upon completion of any of these programs, a statement will be placed on the student's permanent record indicating the area of concentration. The certificate indicating the area of concentration will be awarded when the student completes requirements for a degree unless the program specifies that it is free standing and does not require participation in a degree program.

AGING SERVICES

This program is intended for individuals who wish to enhance their knowledge of the aging process, study issues pertinent to the elderly, and develop skills useful in working with senior citizens. This program is not limited to community services majors.

This certificate program is generally designed for individuals in one of the following categories:

- The person with no degree but who is contemplating working with senior citizens.
- The person with a degree who has not had specialized training in the field of gerontology, but who would like to work in this field.
- The person employed in this field who would like to upgrade his/her knowledge and skills.
- Persons interested in enhancing the quality of their post-retirement years or those of family and friends.

Persons interested in this program should consult with the Public Services Department. This certificate may be earned independent of earning a degree.

Requirements

		Credits
1850:450	Interdisciplinary Seminar in Gerontology	2
1850:486	Retirement Specialist	2
2020:121	English	4
2020:222	Technical Report Writing	3
2040:240	Human Relations	3
2040:244	Death and Dying	2
2260:150	Introduction to Gerontological Services	3
2260:278	Techniques of Community Work	4
2260:279	Technical Experience: Community and Social Services	5
7400:390	Family Relationships in Middle and Later Years	3

ALCOHOL SERVICES AIDE

This program is intended for individuals who wish to enhance their knowledge of alcohol use and abuse and the treatment of alcoholism. The program is not limited to community services majors. This certificate is generally designed for individuals in one of the following categories:

- The person with no degree but who is contemplating working in the field of alcoholism treatment.
- The person with a degree who has not had specialized training, but who would like to be employed in the field of alcoholism treatment.
- The person employed in this field who would like to upgrade his/her knowledge and skills.

Persons interested in this program should consult with the Public Services Department. This certificate may be earned independent of earning a degree.

Requirements

		Credits
2020:121	English	4
2020:222	Technical Report Writing	3
2260:260	Alcohol Use and Abuse	3
2260:261	Alcoholism Treatment	3
2260:262	Basic Helping Skills in Alcohol Problems	4
2260:263	Group Principles in Alcoholism	4
2260:278	Techniques of Community Work	4
2260:279	Technical Experience: Community and Social Services	5

APPLIED POLITICS

John C. Green, Ph.D., *Director*

The Ray C. Bliss Institute and the Department of Political Science have combined to offer a Certificate Program in Applied Politics for undergraduate students. The Certificate Program in Applied Politics offers course work in the history, organization and management of campaigns intended to influence the outcome of political decisions. Working from a set of core courses, students are allowed to concentrate in the area of applied politics of greatest interest—campaigns, communications, lobbying, political parties, etc. Believing that democracy is best served by having active and informed citizens, the certificate is designed for all students, no matter what their degree program, as long as they have a deep interest in practical politics.

Requirements

Persons are eligible for admission to the Certificate Program in Applied Politics if they have been admitted to study as special, non-degree or full-time students in any department of the University. Student shall seek admission to this program by filing an application with the Bliss Institute. The student shall schedule courses with the assistance of an advisor at the earliest possible time.

Core Courses

3700:470	Campaign Management I	3
3700:471	Campaign Management II	3
3700:395	Internship in Government and Politics	3

Electives

In addition to the core courses, students must complete 9 elective credits. Three credits must be from the following:

3700:402	Politics and the Media	3
3700:440	Survey Research Methods	3
3700:472	Campaign Finance	3
3700:473	Voter Contact and Elections	3
3700:474	Public Opinion, Behavior and Electoral Politics	3
3700:475	American Interest Groups	3
3700:476	American Political Parties	3
7600:450	ST:Communication in Political Campaigns	3

Completed electives must also include an additional 6 credits from above or from approved courses in Political Science, Communication, or other departments. Students must maintain at least a "B" (3.0) average in their coursework for the certificate.

Certificate

Political Science majors will, upon completion of the program, be awarded a B.A. or B.S. degree in Political Science with a Certificate in Applied Politics. Majors in other disciplines will have the Certificate noted on their permanent record.

CANADIAN STUDIES

Mary K. Kirtz, Ph.D., Director

Requirements

The student in the Canadian Studies Certificate Program will complete 15 hours of coursework offered by the designated departments in the Buchtel College of Arts and Sciences. An independent study or a course with Canadian content not on the following list may be substituted for one of the electives with the approval of the Canadian Studies Committee. Persons admitted to study as special, non-degree or full-time students are eligible to apply for the certificate.

Required Course:

		Credits
3005:300	Introduction to Canadian Studies	3

Electives (4 must be taken):

3300:382	Contemporary Canadian Literature	3
3300:489	Seminar in English: Traditional American Indian Tales	3
3300:489	Seminar in English: Great Lakes Indians — Languages and Literatures	3
3350:350	Geography of U.S. and Canada	3
3400:352	The West in the Development of the United States	3
3400:366	History of American Transportation	3
3700:330	Canadian Politics	3
3850:365	Special Topics: Comparing Society	3
3500:315	French-Canadian Literature	3
3400:414	History of Canada	3

CARTOGRAPHIC SPECIALIZATION

Charles Monroe, Ph.D., *Department Chair*

Requirements

This program of professional and scientific education is intended to enhance cartographic training in data handling, analysis and graphic communication of simple and complex geographic data and information. The program is not limited to geography majors and is designed to introduce automated and traditional cartographic skills to the student in a wide spectrum of disciplines. These training opportunities provide for specialized study in the rapidly changing and significant area of cartography as a method of graphic communication. The program is flexible to meet the varied backgrounds and interests of the individual student.

In addition to cartographic courses in the Department of Geography and Planning, many useful courses are found in other departments. The program is designed to permit the student to combine interesting and useful elements of art, science and technology. This certificate may be earned independent of a degree program.

Cartography has a very long and rich history and, while it is eminently practical, has a strong component of theory. For this reason, a student may elect to take cartographic courses simply because they are focused on an interesting and exciting liberal arts subject. Other students choose cartography courses with the thought of increasing their potential of finding a position subsequent to graduation. There is a well-documented need for persons trained in cartographic awareness and skill in business, industry and government, as well as the academic community.

Core

Complete five of the following basic courses:

3350:305	Maps and Map Reading	3
3350:340	Cartography	3
3350:405	Geographic Information Systems	3
3350:442	Thematic Cartography	3
3350:444	Applications in Cartography and Geographic Information Systems	3
3350:447	Introduction to Remote Sensing	3
3350:448	Advanced Cartography	3
3350:449	Advanced Remote Sensing	3

Electives

Each student must complete at least seven credits distributed between professional, technical and research offerings in departments other than the Department of Geography and Planning. These courses will be selected in consultation with the program's director. Similar courses completed at other universities, up to five years prior to admission to candidacy, may be approved by the director.

The electives help develop a diverse cartographic skill and perspective which is significant and useful for persons working with data systems management, urban planning and environmental impact studies. To be truly effective and comprehensive in a career, the student must know a variety of professional and technical approaches to cope with social, economic, political, geographical, physical design and governmental problems. Selecting courses that duplicate or continue topical interests already well established in a particular student's background will be discouraged.

Internship

Internship in an agency, firm or office engaged in related graphic and cartographic work; or an internship in the University's Laboratory for Cartographic and Spatial Analysis.

Final Examination and Defense of Cartographic Works

After the completion of coursework each student undergoes an oral examination covering samples of the student's cartography, conducted by two members of the department and one from the elective area. Questions cover the specific projects and topics covered in the coursework completed specifically for the program. One week before the scheduled examination, the student submits samples of cartographic work.

The works must be acceptable to the examination committee and reduced photographic copies will be kept for permanent record in the laboratory's file. After passing the oral examination and the acceptance of the samples of cartography, the student is considered to have completed the program.

A minimum grade of "C" is required in all elective courses taken as part of the certificate program. In the five core courses, an average grade of "B" is required.

CHEMICAL DEPENDENCY

This program is intended for individuals who wish to enhance their knowledge of chemical dependency treatment. The program is not limited to community service majors. This certificate, which requires 42 credits of course work, is designed for individuals in one of the following categories.

- The person with no degree but who is interested in working in the field of chemical dependency.
- The person with a degree who has not had specialized training, but who would like to have specialized training.
- The person employed in this field who would like to upgrade his/her knowledge and skills.

Persons interested in this program should consult with the Public Services Department. This certificate may be earned independent of earning a degree.

Requirements

		Credits
2260:100	Introduction to Community Services	3
2260:240	Chemical Dependency I	3
2260:241	Chemical Dependency II	3
2260:260	Alcohol Use and Abuse	3
2260:261	Alcohol Treatment	3
2260:262	Basic Helping Skills in Alcohol Problems	4
2260:263	Group Principles in Alcoholism	4
2260:278	Techniques of Community Work	4
2260:279	Technical Experience in Community and Social Services	5
2260:286	Counselor Assistant Internship	4
xxxx:xxx	Electives in Chemical Dependency	6

CHEMICAL DEPENDENCY EDUCATION AND PREVENTION

2260:210	Chemical Dependency Education and Prevention I	4
2260:211	Chemical Dependency Education and Prevention II	4
2260:212	Chemical Dependency Education and Prevention Internship I	5
2260:213	Chemical Dependency Education and Prevention Internship II	4
2260:240	Chemical Dependency	3
2260:260	Alcohol Use and Abuse	3
2260:264	Children of Alcoholics	3
2260:xxx	Electives in Chemical Dependency	6

CHILD CARE WORKER

Requirements

This certificate program provides basic vocational training for child-care practitioners. The course of study is a means of meeting the short range goals of students interested in acquiring skills for job placement in early childhood settings. This certificate may be attained independent of earning a degree.

		Credits
2040:240	Human Relations	3
2200:245	Infant/Toddler Day-Care Programs	3
2200:250	Observing and Recording Children's Behavior	3
5200:310	Introduction to Early Childhood Education	3
5200:315	Issues and Trends in Early Childhood Education	3
5200:360	Teaching in the Nursery Center	2
5200:370	Nursery Center Laboratory	2
7400:265	Child Development	3
7400:270	Theory and Guidance of Play	3
7400:280	Creative Activities for Pre Kindergarten Children	4

COMPUTER INFORMATION SYSTEMS

The certificate provides the opportunity to become proficient in the use of popular micro computer software. This certficate may be obtained independent of a degree.

2440:121	Introduction to Logic/Programming	3
2440:140	Internet Tools	3
2440:170	Visual BASIC	3
2440:175	Microcomputer Application Support	3

COMPUTER INFORMATION SYSTEMS — NETWORK TECHNOLOGIES

The certificate provides the opportunity to become proficient in the use of popular micro computer software. This certficate may be obtained independent of a degree.

2440:270	Network Administration	3
2440:272	Network Technologies	2
2440:274	Network Service and Support	3
2440:276	Network Advanced Administration	2
2440:xxx	Electives	2

Electives:

2440:273	Network Printing	2
2440:275	TCP/IP Fundamentals	2
2440:278	Network Directory Design and Implementation	2
2440:279	Network Intranets and Intranets Ware	1
2440:280	Network Installation and Configuration	1

COMPUTER PHYSICS

E. Von Meerwall, Ph.D., *Director*

Requirements

To qualify for the certificate program, a student must be in good academic standing in the major department and must submit a written request for admission to the director of the program. This course of study adds a component of both physics and computer science to a major in a traditional area of science. The physics courses, beyond Elementary Classical Physics, emphasize computer applications, including interfacing and data acquisition, data analysis and use of computers to solve physical problems.

Physics		*Credits*
3650:291,2	Elementary Classical Physics I, II	8
3650:350	Modeling and Simulation	3
3650:468	Digital Data Acquisition	3
Mathematics		
3450:221,2	Analytic Geometry-Calculus I, II	8
Computer Science		
3460:206	Introduction to C Programming	3
3460:209	Introduction to Computer Science	4
3460:210	Data Structures and Algorithms I	4

The certificate program has been structured to be accessible to most students working toward an undergraduate degree in a traditional area of science. The certificate may be combined with a minor in physics for students who wish to obtain a background in physics which emphasizes applications and uses of computers to collect and analyze data and to solve physical problems.

COMPUTER SCIENCE

Phillip H. Schmidt, Ph.D., *Department Chair*

Requirements

Entrance

To qualify for the Computer Science Certificate Program, a student must be in good academic standing in the major department, must have completed four credits of mathematics in the Department of Mathematical Sciences and must submit to the department head a written request for admission to the program. The request will outline the student's reasons and goals for enrolling in the program. The area of concentration adds a further dimension of both mathematics and computer science to the student's major in one of the traditional academic disciplines. A minimum grade-point average of 2.00 in the certificate is required. The Certificate in Computer Science will only be granted upon completion of a degree program or if a degree has already been earned.

Courses

3450:208	Discrete Mathematics	4
3450:215	Concepts of Calculus I	4
	or	
3450:221	Analytic Geometry-Calculus I	4
3460:209	Introduction to Computer Science	4
3460:210	Data Structures and Algorithms I	4
3460:306	Assembly Language Programming	3
3460:316	Data Structures and Algorithms II	3
xxxx:xxx	Approved 300/400-Level Computer Science Electives	6

CONFLICT MANAGEMENT

For information, contact the Director of the Center for Conflict Management at (330) 972-7008.

This program analyzes, from a multi-disciplinary perspective, the sources and causes of violence as well as the methods for mediating and resolving conflict.

Admission Requirements and Procedures

Students must:

- be formally admitted as an undergraduate or be a post-baccalaureate student.
- complete a formal application to the program. Forms are available at the Center for Conflict Management Office, Room 201, Leigh Hall.

Students need not be enrolled in certificate program to take Conflict Management courses.

A minimum of 21 semester credit hours required. Eleven of these must be at the 300/400 level.

Certificate for Conflict Management

Core Courses (9 credits)

		Credits
3003:230	Introduction to Conflict Management/Resolution	3
3003:430	Integrative Approaches to Conflict Management/Resolution	3
3003:495	Internship in Conflict Management	3-6

Basic Background Courses (3 credits)

3003:378	Introduction to Human Rights Concepts	3
3250:100	Introduction to Economics	3
3600:120	Introduction to Ethics	3
3600:170	Introduction to Logic	3
3600:324	Social and Political Philosophy	3
3700:303	Introduction to Political Thought	3
3700:304	Modern Political Thought	3
3750:340	Social Psychology	4
3870:150	Cultural Anthropology	4
7600:235	Interpersonal Communication	3
7600:325	Intercultural Communication	3

Topical Courses (9 credits)

Choose courses in one of the following areas.

- Business/Economics/Labor
- Family/Community
- International

Business/Economics/Labor

3250:330	Labor Problems	3
3250:431	Labor and Government	3
3250:432	Economics and Practice of Collective Bargaining	3
3600:362	Business Ethics	3
3750:240	Introduction to Industrial/Organizational Psychology	4
3750:440	Personal Psychology and the Law	4
3750:443	Human Resource Management	4
3750:444	Organizational Theory	4
3750:445	Psychology and Small Group Behavior	4
3850:335	Social Behavior in Organization	3
6400:325	Business and Society	3
6500:301	Management: Principles and Concepts	3
6500:302	Introduction to Organizational Behavior	3
6500:341	Human Resource Management	3
6500:342	Labor Relations	3
6500:455	Management of Arbitration	3
6500:458	Managerial Arbitration, Mediation, Conciliation	1-3
6600:475	Business Negotiations	3
7600:435	Communication In Organizations	3

Family/Community

3003:300	Special Topics: Alternatives to Violence	3
3600:232	Philosophy of Religion	3
3600:361	Biomedical Ethics	3
3600:421	Philosophy of Law	3
3700:361	Politics of the Criminal Justice System	3
3750:400	Personality	4
3750:435	Cross Cultural Psychology	4
3750:441	Clinical and Counseling Psychology	4
3750:445	Psychology and Small Group Behavior	4
3850:315	Sociological Social Psychology	3
3850:320	Social Inequality	3
3850:341	Political Sociology	3
3850:421	Racial and Ethnic Relations	3
3870:461	Language and Culture	3
3870:463	Social Anthropology	3
7400:201	Courtship, Marriage and the Family	3
7400:362	Family Life Management	3
7400:401	Family Life Patterns in the Economically Deprived Home	2
7400:404	Adolescence in the Family Context	3
7400:496	Parenting Education	3
7600:225	Listening	1
7600:227	Nonverbal Communication	3
7600:252	Persuasion	3
7600:344	Group Decision Making	3
7750:270	Poverty in the United States	3
7750:410	Minority Issues in Social Work Practice	3
7750:430	Human Behavior and Social Environment for Social Workers	3

International

3003:300	Special Topics: Alternatives to Violence	3
3003:301	Value Concepts: Peace and War	3
3003:378	Introduction to Human Rights Concept	3
3003:382	The Vietnam War	3
3250:450	Comparative Economic Systems	3
3250:460	Economic Development and Planning for Underdeveloped Countries	3
3250:461	Principles of International Economics	3
3350:350	Geography of US and Canada	3
3350:353	Latin America	3
3350:356	Europe	3
3350:358	Russia and Associated States	3
3350:360	Asia	3
3350:363	Africa South of the Sahara	3
3400:438	Nazi Germany	3
3400:460	U.S. Diplomacy to 1919	3
3400:461	U.S. Diplomacy since 1914	3
3600:324	Social and Political Philosophy	3
3700:310	International Politics and Institutions	4
3700:312	The Politics of International Trade and Money	3
3700:322	Politics of Post-Communist States	3
3700:326	Politics of Developing Nations	3
3700:405	Politics in the Middle East	3
3700:410	International Defense Policy	3
3700:415	Comparative Foreign Policy	3
6800:421	International Business Practices	3

CRIMINAL JUSTICE TECHNOLOGY

Requirements

The program specified is designed to provide background, proficiency and updating in the criminal justice area. In the immediate geographic area there are approximately 2,200 police officers and support personnel in police departments. While many of these police officers have completed a degree, many more would benefit by this type of approach. The designed program would provide a measure of recognition for those students enrolled and completing the program. The program would be continually monitored and has been included in many localities as an incentive for promotion, pay increases and lateral movement within the police agency. This certificate may be obtained independent of a degree.

2200:100	Introduction to Criminal Justice	3
2220:102	Criminal Law for Police	3
2220:104	Evidence and Criminal Legal Process	3
2220:240	Vice and Organized Crime	3
2220:250	Criminal Case Management	6
3850:100	Introduction to Sociology	4

CRIMINAL JUSTICE/ SECURITY EMPHASIS

Requirements

The program specified is designed as an integrated approach to provide proficiency and updating in the security field. The security field is one of the fastest growing areas of business today. There are approximately 750,000 individuals in the United States dealing with security problems. In the state of Ohio, there are approximately 70,000 and in the local area, 2,500 security personnel. The field is upgrading very rapidly by accepted state training and there is a move now for more education to be provided at the college level.

This certificate may be obtained independent of a degree.

		Credits
2220:101	Introduction to Security	4
2220:290	Special Topics in Criminal Justice	3
2220:296	Current Topics in Criminal Justice	3
2230:204	Fire Hazards Recognition	3
2230:250	Hazardous Materials	4
2230:257	Fire Protection for Business and Industry	3

Corrections Option

2220:100	Introduction to Criminal Justice	3
2200:102	Criminal Law for Police	3
2200:106	Juvenile Justice Process	3
3850:100	Introduction to Sociology	4
3850:330	Criminology	3
3850:429	Probation and Parole	3
3850:431	Corrections	3
		22

Advanced Officer Training

2220:212	Traffic Accident Investigator	4
2220:222	Interview and Interrogation	3
2220:242	Organized Crime/Vice Crime	3
2220:252	Advanced Criminal Case Management	4
2220:262	Police Administration	3
2220:290	Special Topics: Occult Crime	3
		20

DIGITAL ELECTRONICS AND MICROPROCESSORS

Requirements

The certificate program in Digital Electronics and Microprocessors is designed for students who desire a formal, structured program in a specific area in the field of electronics, but, because of time or work constraints, are unable to pursue a complete associate or baccalaureate degree program.

The following 26 semester hours are required:

2030:152	Elements of Mathematics II	2
2030:153	Elements of Mathematics III	2
2030:154	Elements of Mathematics IV	3
2860:120	DC Circuits	4
2860:122	AC Circuits	3
2860:123	Electronic Devices	3
2860:136	Introduction to Digital Concepts	1
2860:237	Digital Circuits	4
2860:238	Microprocessor Fundamentals	4

All courses taken may be applied toward the Associate Degree in Electronic Engineering Technology.

DRAFTING AND COMPUTER DRAFTING TECHNOLOGY

Requirements

The certificate program in Drafting and Computer Drafting Technology is intended for individuals who wish to enhance or update their drafting skills. The program has been designed so that an individual can emphasize a specific area of drafting. A minimum of 18 credits is required. All courses taken may be applied toward an associate degree in Drafting and Computer Drafting Technology. This certificate may be earned independent of any degree program.

The following 9 semester hours are required:

		Credits
2940:121	Technical Drawing I	3
2940:122	Technical Drawing II	3
2940:210	Computer Aided Drawing I	3

A minimum of 9 semester hours selected from the following:

2940:170	Surveying Drafting	3
2940:200	Advanced Drafting	3
2940:211	Computer Aided Drawing II	3
2940:230	Mechanical Systems Drafting	3
2940:240	Electrical & Electronic Drafting	3
2940:250	Architectural Drafting	3
2980:223	Fundamentals of Map Production	3
2980:250	Structural Drafting	2

All courses taken may be applied toward the Associate Degree in Drafting and Computer Drafting Technology.

ENTREPRENEURSHIP

This certificate program prepares potential entrepreneurs. It provides students with exposure to entrepreneurial activities and builds critical skills needed for entrepreneurial activities. (Courses in this program may not be subsequently used to satisfy any College of Business Administration core course requirements.)

Requirements

A total of 18 credit hours is required for the certificate program. The student must complete 15 credit hours of required courses. In addition, a 3 credit hour course must be selected from a list of electives.

Program:

- Required: Complete all courses - 15 hours

6300:201	Introduction to Entrepreneurship	3
6300:301	Entrepreneurial Management and Operations*	3
6300:330	Entrepreneurial Issues in Accounting and Finance	3
6300:360	Entrepreneurial Field Project	3
6300:450	Entrepreneurial Strategic Planning	3

- Electives: Complete one course - 3 credits

6300:370	Entrepreneurial Principles & Practices	3
6300:490	Entrepreneurship: Selected Topics	1-3
6300:499	Independent Study in Entrepreneurship	1-3

* Students who have taken 6500:301 and 330 will complete 6300:303 Entrepreneurial Management Issues (1 credit) in lieu of 6300:301. Such students should then select 2 more credits of entrepreneurial electives.

ENVIRONMENTAL STUDIES

Annabelle M. Foos, Ph.D., *Interim Director*

Requirements

To qualify for the certificate program, students must be in good academic standing with their major department and request admission to the program by completing the certificate application form. A student's plan of study for this certificate will be developed in consultation with the director of the Center for Environmental Studies. Students will select elective courses from areas outside their academic major.

Core (required)

		Credits
3010:201	Introduction to Environmental Studies	2
3010:401	Seminar in Environmental Studies	2

Students will select courses from areas other than their major.

Students' plans of study for this certificate will be developed in consultation with the director of the Center for Environmental Studies.

Electives (minimum of 12 credits)

2230:250	Hazardous Materials	4
3010:401	Seminar in Environmental Studies (may be repeated as an elective)	2
3010:490/590	Workshop in Environmental Studies	1-4
3010:602	Evaluation of Environmental Data	3
3010:661	Graduate Seminar in Environmental Studies	3
3100:217	General Ecology	3
3100:421	Tropical Field Biology	4
3100:424/524	Freshwater Ecology	3
3100:426/526	Applied Aquatic Ecology	4
3150:100	Chemistry and Society	3
3250:385	Economics of Natural Resources and Environment	3
3250:389	Economics of Energy	3
3350:310	Physical and Environmental Geography	3
3350:314	Climatology	3
3350:335	Recreational Resource Planning	3
3350:351	Ohio Environment and Society	3
3350:405/505	Geographic Information Systems	3
3350:436/536	Urban Land Use Analysis	3
3350:447/547	Introduction to Remote Sensing	3
3350:495/595	Soil and Water Field Studies	3
3370:126, 129, 130, 131, 134, 135	Concepts in Geology	1
3370:200	Environmental Geology	3
3370:201, 202	Exercises in Environmental Geology	1
3370:301	Engineering Geology	3
3370:470/570	Geochemistry	3
3370:474/574	Ground Water Hydrology	3
3370:674	Advanced Ground Water Hydrology	3
3370:678	Urban Geology	3
3400:471/571	American Environmental History	3
3700:412/512	Global Environmental Politics	3
3850:321	Population	3
4100:203	Environmental Science and Engineering	3
4200:463/563	Pollution Control	3
4200:750	Advanced Pollution Control	3
4300:323	Water Supply and Pollution Control	4
4300:423/523	Chemistry for Environmental Engineers	3
4300:426/526	Environmental Engineering Design	3
4300:427/527	Water Quality Modeling and Management	3
4300:428/528	Hazardous and Solid Waste	3
9200:661	Environmental Law	3

FIRE PROTECTION TECHNOLOGY

Requirements

Although fire continues to be a growing problem in the United States with more than 2,300,000 fires annually causing 6,000 fatalities and 30,000 injuries, many municipalities are financially unable to provide a full-time fire department and instead must depend upon the dedicated volunteer firefighter. As this trend continues, the need for the well-educated volunteers will be even more critical as these citizens assume responsible officer positions.

The Fire Protection Technology certificate will assist the student in acquiring the skills and knowledge to function effectively as a volunteer/paid on-call firefighter or officer in addition to receiving a certificate of completion and accomplishment.

		Credits
2230:100	Introduction to Fire Protection	3
2230:102	Fire Safety in Building Design and Construction	3
2230:104	Fire Investigation Methods	4
2230:202	Fire Suppression and Emergency Response Methods	4
2230:204	Fire Hazards Recognition	3
2230:205	Fire Detection and Suppression Systems I	3
2230:250	Hazardous Materials	4

GERONTOLOGY

Harvey L. Sterns, Ph.D., *Director*
Isadore Newman, Ph.D., *Associate Director*
Terry H. Albanese, Ph.D., *Program Coordinator, Gerontology Certificate Program; Practicum Coordinator*
Jerome Kaplan, Ph.D., *Program Coordinator,Nursing Home Administrator Program*

Requirements

This certificate program is a special course of study in gerontology that compliments undergraduate degree programs in various departments and colleges throughout the University. Individuals who already hold an undergraduate degree may also pursue the certificate. The program represents a concentration involving current knowledge and research in gerontology. It adds another dimension to the knowledge and skills a student is able to offer in the many professions that are becoming specialized in research and service to adults and older adults. This course of study coordinates multidisciplinary training of personnel in adult development and aging and helps to meet the critical shortage of trained individuals in the field of gerontology.

The undergraduate curriculum committee of the Institute for Life-Span Development and Gerontology will oversee this certificate program and certify through the director of the institute that all requirements for the certificate have been completed.

A sequence of study is available in Nursing Home Administration through the institute. The undergraduate certificate is included in the Ohio Board of Examiners of Nursing Home Administrators approved course of study in Nursing Home Administration which combines a Bachelor of Science degree in management (Human Resource Management Concentration) with a Certificate in Gerontology.

B.S./M.D. students may complete the Practicum/Internship and electives from courses available from the institute or the Office of Geriatric Medicine and Gerontology, NEOUCOM.

Admission

To participate in the program, a student must:

- Obtain admittance to The University of Akron as an undergraduate or postbacalaureate student.
- Submit an application to the program countersigned by the student's major academic adviser.
- Participate in an interview with the Director or a designated faculty member of the Institute for Life-Span Development and Gerontology.
- Consult with the Director or a designated faculty member to formulate a program of study.
- Receive written notification of admission from the Director of the Institute for Life-Span Development and Gerontology.

Program

Minimum: 20 credits.

Core

		Credits
3006:450	Interdisciplinary Seminar in Gerontology	2
3006:495	Practicum/Internship (within Institute or in individual departments)	3
3100:392	Biology of Aging Prerequisite: 3110:112 or 265 or 206 or 207 or equivalent	3
3750:475	Psychology of Adulthood and Aging Prerequisite: 3750:100 or permission	4
3850:343	The Sociology of Aging Prerequisite: 3850:100 or permission	3

Electives (must be outside of student's major degree department)

3006:486	Retirement Specialist	2
3006:490	Workshop Women: Middle and Later Years	2
3006:490	Workshop Aging: Process and Intervention	2
3006:485-001	Special Topics Long Term Care: Case Management/Patient Services	3
3006:485-003	Special Topics Long Term Care: Health and Nutrition	3
2040:244	Death and Dying	2
3700:480	Policy Problems: Aging*	3
3850:365	Special Topics in Sociology: Death and Dying	3
3850:444	Social Issues in Aging	3
5400:440	Life-Span and Community Education	2
6500:480	Introduction to Health Care Management	3
7400:390	Family Relationships in Middle and Later Years	3
7700:110	Introduction to Disorders of Communication	3
7750:450	Social Needs and Services: Aging	3

For students in course sequence for Nursing Home Administration, the following courses are required:

3006:485	ST: Long Term Care Administration	3
3006:485	ST: Long Term Care Case Management and Patient Services	3
3006:485	ST: Long Term Care Health and Nutrition	3
3006:485	ST: Long Term Care Administrator-in-Training Experience	3

Many courses have prerequisites which must be met.

HOME-BASED INTERVENTION

Helen Cleminshaw, Ph.D., *Coordinator*

This certificate program is a special course of study along with the undergraduate degree programs in various departments and colleges throughout the University. Undergraduate students will earn the certificate upon their graduation in their degree program. Individuals who already hold an undergraduate degree may pursue the certificate in the postbaccalaureate program. The program represents a concentration in current theoretical knowledge and practice in home-based intervention. It adds another dimension to the knowledge and skills a student is able to offer in the many professions that relate to services to at-risk children and their families. This course of study coordinates multidisciplinary training of personnel in home-based intervention and helps to meet the need for trained professionals in home-based intervention.

The undergraduate curriculum committee of the Center for Family Studies will oversee the certificate program and certify through the certificate program director that all requirements for the certificate have been completed.

Admission

To participate in the program the student should:

- Be formally admitted to The University of Akron as an undergraduate or postbaccalaureate student.
- Make written application to the program countersigned by the student's major adviser (if applicable).
- Have an interview with the director of the certificate program in Home-based Intervention.
- Consult with the director to formulate a program of study.
- Receive written notification from the director of admission to the program.

* Offered every other year.

Program

All students enrolled in the home-based certificate program will enroll in the core courses in Home-based Intervention. Students will complete 18 credits in core and elective course work.

Core (9-11 credits)

1820:403	Home-based Intervention Theory
1820:404	Home-based Intervention Techniques and Practice
1820:405	Home-based Intervention Internship

Eligibility courses (9 credits)

Students must have completed at least nine undergraduate credits in theoretical frameworks from their discipline or in related areas as follows:

Students will select at least one course from each area or document the same or an equivalent course from transcripts.

Psychology		*Credits*
3750:100	Introduction to Psychology	3
3750:230	Developmental Psychology	4
3750:335	Dynamics of Personality	4
Family and Consumer Sciences		
7400:265	Child Development	3
7400:360	Parent-Child Relations	3
7400:362	Family Life Management	3
Sociology/Social Work		
7750:276	Introduction to Social Welfare	4
7750:455	Black Family Issues	3
7750:455	The Black Family	3
3850:100	Introduction to Sociology	4
3850:340	The Family	3

Electives (9 credits)

Select one course from three different disciplines. (Must be outside student's major degree area.)

Family and Consumer Sciences		
7400:401	Family Life Patterns in the Economically Deprived Home	2
7400:404	Adolescence in the Family Context	3
7400:406	Family Resource Management	3
7400:440	Family Crisis	3
7400:442	Human Sexuality	3
7400:492	Parenting Skills	3
Sociology		
3850:410	Social Structures and Personality	3
3850:412	Socialization: Child to Adult	3
3850:430	Juvenile Delinquency	3
3850:450	Sociology of Mental Illness	3
Psychology		
3750:400	Personality	4
3750:420	Abnormal Psychology	4
3750:430	Psychological Disorders of Children	4
Social Work		
7750:410	Minority Issues in Social Work Practice	3
7750:451	Social Work and Child Welfare3	
7750:452	Social Work and Mental Health3	
7750:454	Social Work in Juvenile Justice3	
Multicultural Education		
5630:482	Characteristics of Culturally Different Youth	3
Special Education		
5610:440	Developmental Characteristics of Exceptional Individuals	3
5610:446	Developmental Characteristics of Behaviorally Disordered Individuals	3
5610:459	Communication and Consultation with Parents and Professional	3
5610:468	Advanced Behavioral Management	3

HOSPITALITY MANAGEMENT

Program

The Hospitality Management certificates in Culinary Arts, Hotel/Motel Management, and Restaurant Management are intended to meet the need of persons who are active or wish to become active in the hospitality industry and are seeking to acquire specific knowledge which will be of immediate use in their careers. The certificates are also of use to non-hospitality majors who wish to broaden their skills and employability by completing the required 32 credits of class and laboratory credits.

NOTE: The award of these certificates are not contingent upon completion of a degree program. All courses taken may be applied toward an associate degree in hospitality management.

Culinary Arts

		Credits
2280:101	Introduction to Hospitality	3
2280:120	Safety and Sanitation	3
2280:121,2	Fundamentals of Food Preparation I, II	8
2280:230	Advanced Food Preparation	4
2280:232	Dining Room Service and Training	2
2280:233	Restaurant Operation and Management	4
2280:245	Menu, Purchasing and Cost Control	4
2280:261	Baking and Classical Desserts	4

Hotel/Motel Option

2280:101	Introduction to Hospitality	3
2280:120	Safety and Sanitation	3
2280:121	Fundamentals of Food Preparation I	4
2280:160	Wine and Beverage Service	3
2280:232	Dining Room Service and Training	2
2280:237	Internship	1
2280:240	Systems Management and Personnel	3
2280:245	Menu, Purchasing and Cost Control	4
2280:256	Hospitality Law	3
2280:268	Revenue Centers	3
2280:278	Hotel Catering and Marketing	3

Restaurant Management Option

2280:101	Introduction to Hospitality	3
2280:120	Safety and Sanitation	3
2280:121	Fundamentals of Food Preparation I	4
2280:122	Fundamentals of Food Preparation II	4
2280:160	Wine and Beverage Service	3
2280:232	Dining Room Service and Training	2
2280:233	Restaurant Operation and Management	4
2280:237	Internship	1
2280:240	Systems Management and Personnel	3
2280:245	Menu, Purchasing and Cost Control	4
2280:256	Hospitality Law	3

INTERIOR DESIGN

Carolyn Albanese, M.S., *Associate Professor*

Requirements

The certificate of interior design is an interdisciplinary program between the School of Family and Consumer Sciences and the School of Art which qualifies the student as an interior design assistant. The interior design assistant is qualified by education and experience to assist clients with the selection and arrangement of interior furnishings, materials and space planning; perform the basic skills necessary to implement a design, including taking measurements, providing cost estimates, preparing drawings and business documents, and consulting with workrooms, installers, and other support specialists; and assist the professional interior designer. The certificate program is open to undergraduates in other disciplines as well as persons with baccalaureate degrees from The University of Akron or other accredited institutions. The certificate must be issued simultaneously with a baccalaureate degree or to those already holding a baccalaureate degree. Students interested in this program must meet with an academic advisor in order to sign a contract of study and obtain information on sequencing of required courses.

Required:

		Credits
7100:131	Drawing I	3
7100:244	Two-Dimensional Design	3
7100:491	Architectural Presentations I	3
7100:492	Architectural Presentations II	3
7400:158	Introduction to Interior Design	3
7400:225	Textiles	3
7400:258	Light in Man-Made Environments	3
7400:335	Specifications for Interiors II	3
7400:336	Principles and Practices of Design	3
7400:418	History of Interior Design I	4
7400:419	History of Interior Design II	4
7400:433	Residential Design	3
7400:434	Commercial Design	3
7400:435	Decorative Elements in Interior Design	1
7400:497	Internship: Interior Design	3
	Total Hours Required	45

Select one of the following:

Preservation Track

7400:436	Textile Conservation	3
7400:459	Senior Design Synthesis	3
7400:485	Field Studies	3

Computer-Assisted Design

2940:210	Computer-Aided Drawing I	3
7100:185	Introduction to Computer Graphics	3
7400:257	AUTOCAD for Interior Designers	3

Business Track

2420:101	Essentials of Marketing	3
2520:212	Principles of Sales	3
7400:139	Fashion and Furnishings Industries	3

INTERNATIONAL BUSINESS

Dr. John Thanopoulos, *Coordinator*

This certificate program provides students with the opportunity to enhance their appeal on the job market by providing basic knowledge in international business. It is especially appropriate for students pursuing non-business degrees who have an interest in using their education in an international environment. It is also a valuable means for post baccalaureate students to learn about international business.

Requirements:

A total of 15 credit hours are required for the certificate program. The student must complete 6 credit hours of required coursework. In addition, a total of 9 credits must be selected from the list of electives.

- Required — Complete both courses (6 credits)

6800:305	International Business	3
6800:405	Multinational Corporations	3

- Electives — Complete at least three courses (9 credits)

6400:481	International Business Finance	3
6500:457	International Management	3
6600:385	International Marketing	3
6800:421	International Business Practices	3
6800:495	Internship in International Business	1-3
6800:496	Special Topics in International Business	1-3

LATIN AMERICAN STUDIES

Hugo Lijeron, Ph.D., *Director*

Requirements

The student in the Latin American Studies Certificate Program will major in the respective disciplines: economics, geography, history, political science, sociology and Spanish.

In addition, the student will take 12 credits in the three separate disciplines chosen from the following list:

Political Science

		Credits
3700:425	Latin American Politics	3

History

3400:415	Latin America: National Origins	3
3400:416	Latin America: 20th Century	3
3400:417	United States, Latin America and Imperialism	3
3400:418	Mexico	3
3400:419	Central America and the Caribbean	3

Geography

3350:353	Latin America	3

Sociology/Anthropology

3870:355	Indians of South America	3
3870:356	New World Prehistory	3

Economics

3250:460	Economic Development and Planning for Underdeveloped Countries	3

The student is also required to study three years of Spanish or the equivalent.

LEGAL ASSISTING

Admission Requirements:

Students interested in the certificate program must meet one of the following criteria in order to be admitted:

- Bachelor's degree or beyond;
- Associate degree;

Graduation Requirements:

- 2.0 GPA in major;
- Minimum of 31 credits as in curriculum outline;
- No grade below a C in major.
- Required coursework includes

2290:101	Introduction to Legal Assisting	3
2290:104	Basic Legal Research and Writing	3
2290:106	Business Associations	3
2290:108	Real Estate Transactions	3
2290:118	Probate Administration	4
2290:220	Legal Assisting Internship	4

- Students are required to take 15-16 hours from the following courses

2290:110	Tort Law	3
2290:112	Family Law	3
2290:204	Advanced Legal Research	3
2290:214	Civil Procedures	3
2290:216	Debtor-Creditor Relations	3
2290:218	Advanced Probate Administration	3

Students interested in a **Probate** emphasis shall take 2290:204, 2290:218, 2290:220, and two other courses Spring Semester.

Students interested in a **Civil Litigation** emphasis shall take 2290:204, 2290:214 and 2290:220 and two other courses of their choice during the Spring Semester.

LINGUISTIC STUDIES

Arthur Palacas, Ph.D., *Director*

Requirements

Completion of six linguistically oriented courses as follows: the foundation course, two core courses and at least three elective courses. Three or more of the courses must be at the 300/400 level. (Subject to approval by the program director, other theoretically oriented linguistics courses may substitute for core courses.)

To obtain the certificate, the student must have at least two semesters of language. A student entering the program should discuss plans with the director.

Foundation (Required)

		Credits
3300:371	Introduction to Linguistics	3

Core (Minimum of two of the following)

3300:472	Syntax	3
3600:481	Philosophy of Language	3
3870:461	Language and Culture	3
7700:230	Speech and Language Development	3
	or	
7700:430	Aspects of Normal Language Development	3

Electives

3300:400	Anglo Saxon	3
3300:470	History of the English Language	3
3300:471	U.S. Dialects: Black and White	3
3300:473	ST: Teaching ESL: Theory and Method	3
3300:489	ST: Sociolinguistics	3
3460:460	Artificial Intelligence and Heuristics Programming	3
3460:470	Automata, Computability and Formal Language	3
3580:405,6	Spanish Linguistics	8
3600:170	Introduction to Logic	3
3600:374	Symbolic Logic	3
3600:418	Analytic Philosophy	3
3600:471	Introduction to Metaphysics	3
5200:335	Teaching of Language Arts	5
5630:481	Multicultural Education in the United States	3
7600:325	Intercultural Communication	2
7700:111	Introduction to Phonetics	2
7700:271	Language of Signs I	3

MANUAL COMMUNICATION

Mona S. Klingler, M.A., *Coordinator*

This certificate, designed for those who use American Sign Language to communicate with the hearing impaired population, is open to undergraduate majors in any discipline as well as persons with a baccalaureate degree from the University or any other accredited institution. This certificate may also be earned independent of earning a degree.

Requirements

7700:101	Beginning Sign Language I	3
7700:102	Beginning Sign Language II	3
7700:120	Introduction to Audiology/Aural Rehabilitation	4
7700:121	Psychosocial Aspects of Deafness	2
7700:201	Intermediate Sign Language	3
7700:202	Advanced Sign Language	3
7700:222	Survey of Deaf Culture in America	2

Note: For students majoring in Speech-Language Pathology and Audiology, 7700:140 and 7700:240 (departmental required courses) will be substituted for 7700:120.

MARKETING AND SALES TECHNOLOGY

This program is designed for students who desire a formal, structured program in the field of Marketing and Sales but do not wish to pursue an associate or baccalaureate degree. In addition, students may have already received an associate or baccalaureate degree in another area and be interested in receiving formal training in the marketing segment of their career field.

Requirements

		Credits
2420:101	Essentials of Marketing Technology	3
2520:103	Principles of Advertising	3
2520:106	Visual Promotion	3
2420:211	Basic Accounting I	3
2520:211	Math of Retail Merchandising	3
2520:212	Principles of Sales	3
In addition, select one the following:		
2520:215	Advertising Projects	2
2520:217	Merchandising Projects	2
2520:219	Sales Projects	2

MARKETING AND SALES TECHNOLOGY: ADVERTISING

This program is designed for students who desire a formal, structured program in the field of Advertising but do not wish to pursue an associate or baccalaureate degree. In addition, students may have already received an associate or baccalaureate degree in a different area and be interested in receiving formalized training in advertising due to the pervasiveness of the field in virtually all areas of commerce.

Requirements

2520:103	Principles of Advertising	3
2020:224	Writing for Advertising	4
2520:215	Advertising Projects	2
2520:221	AAF—I	2
2520:222	AAF—II	2
2520:234	Humor in Advertising	2

NETWORK TECHNOLOGY

The Network Technology Certificate provides the network administration and technical support skills needed by a variety of computer specialists in business and industry.

Requirements

2440:270	Network Administration	3
2440:272	Network Technologies	2
2440:274	Network Service and Support	3
2440:276	Network Advanced Administration	2
2440:xxx	Electives	2
		12
Electives:		
2440:273	Network Printing	2
2440:275	TCP/IP Fundamentals	2
2440:278	Network Directory Design and Implementation	2
2440:279	Network Building Intranets and IntranetWare	1
2440:280	Network Installation and Configuration	1

Note: The required courses listed above carry prerequisites that must be honored except by the written permission of the program coordinator.

OFFICE ADMINISTRATION

Administrative Assistant

Requirements

This 32 credit program is designed for the individual who has had previous college training and/or extensive office experience and who wishes to add administrative secretarial skills to enhance career opportunities. The student will develop effective letter writing ability, use new office machines and correlate secretarial skills and administrative ability.

		Credits
2040:251	Human Behavior at Work	3
2420:103	Essentials of Management Technology	3
	or	
2540:265	Women in Management	3
2420:211	Basic Accounting I	3
2440:103	Software Fundamentals	2
2440:125	Spreadsheet Software	2
2540:129	Information/Records Management	3
2540:151	Intermediate Word Processing	3
2540:243	Internship	3
2540:253	Advanced Word Processing	3
2540:263	Business Communications	3
2540:270	Office Software Applications	4

Word Processing

Requirements

This 26 credit program is designed to enable the student who has some beginning keyboarding skills to prepare for an entry-level job in word processing. Study focuses on the applied use of word processing procedures and equipment in a word processing office environment. All courses may be applied toward an associate degree in Office Administration.

Courses

2440:103	Software Fundamentals	2
2440:125	Spreadsheet Software	2
2540:119	Business English	3
2540:151	Intermediate Word Processing	3
2540:253	Advanced Word Processing	3
2540:263	Business Communications	3
2540:270	Office Software Applications	4
2540:271	Desktop Publishing	3
2540:281	Editing/Proofreading/Transcription	3

PAN-AFRICAN STUDIES

For information, contact the Interdisciplinary Office, located in Leigh Hall 201, (330) 972-7008.

Requirements

To satisfy the requirements for the certificate, a student must complete at least 15 semester credits and five courses with a minimum 2.30 GPA from the list of elective courses or other courses identified as acceptable by the director. The requirements are as follows:

Required courses (6 credits):

		Credits
3002:201	Introduction to Pan-African Studies	3
3400:260	African-American People of the United States 1492-1877	3
	or	
3400:261	African-American People of the United States 1877-present	3

Elective Courses (9 credits)

2040:254	The Black American	2
3002:301	The Civil Rights Movement in America 1945-1974	3
3002:401	General Seminar in Pan-African Studies	3
3002:420	Special Topics in Pan-African Studies	1-3
3002:498	Independent Study	1-3
3300:350	Black American Literature	3
3300:471	United States Dialects: Black and White	3
3300:389	Special Topics: African-American Novel	3
3300:389	Special Topics: African-American Drama	3
3300:689	Special Topics: Seminar Wright/Ellison/Baldwin	3
3350:363	Africa South of the Sahara	3
3440:390	World Civilizations: Africa	2
3500:340	Special Topics: African Experiences in Latin America	3
3400:468	African-American Social and Intellectual History	3
3700:327	African Politics	3
3850:421	Racial and Ethic Relations	3
7750:270	Poverty in the United States	3
7750:276	Introduction to Social Welfare	4
7750:410	Minority Issues in Social Work	3
7750:455	Black Family Issues	3

A student undertaking the Pan-African Studies Certificate Program must have prior consultation with the director of Pan-African Studies.

Only students entering the certificate program after Fall 1996 will receive a certificate entitled Pan-African Studies. Students entering the program prior to Fall 1996 will receive a certificate entitled African-American Studies.

PLANNING WITH AN EMPHASIS ON CITY OR REGIONAL RESOURCE STUDIES

Charles Monroe, Ph.D., *Department Chair*

Requirements

This program is intended to enhance understanding of the planning function and to increase the research and analytical abilities of the person preparing for work in, or who is currently engaged in, city, urban, regional, environmental and resource planning. The program is open to the undergraduate, as well as a person with a baccalaureate degree, employed in local agencies doing related work, e.g., urban renewal, community redevelopment, community action, environmental protection and private industry. The person with a degree can enroll as a postbaccalaureate or special student.

Program

- Employment or internship in a planning agency or in an office engaged in related work; or a sincere intention to pursue a professional career in some aspect of government work or planning after graduation.
- A statement by the applicant giving reasons for wishing to participate in the planning certificate program.

Core

Complete five of the following:

		Credits
3250:244	Introduction to Economic Analysis	3
3350:320	Economic Geography	3
3350:433	Introduction to Planning	3
3350:495	Soil and Water Field Studies	3
3370:200	Environmental Geology	3
3400:436	The American City	3
3700:210	State and Local Government and Politics	3
3700:380	Urban Politics and Policies	4
3850:425	Sociology of Urban Life	3
4300:450	Urban Planning	2

Electives

Each student's program (subject to the program director's approval) is to include six elective courses distributed between professional, technical and research offerings. Three courses will be from the professional listing and three from the technical-research listing. In consultation with the program director, elective courses will be selected from University offerings either in the city planning or regional resource planning emphasis areas. Similar courses completed at this or other universities, up to five years prior to admission to candidacy, may be approved by the director.

The intent of the elective requirements is to facilitate the development of a diverse perspective which is significant for a person who will be or is already engaged in planning for present and changing future urban, regional, environmental, resource, energy and societal needs. The truly comprehensive planner must have academic acquaintance with a variety of professional and technical approaches to cope with social, geographical, physical design, economical and governmental problems. Selecting courses that duplicate or continue interests already well established in a student's background will be discouraged.

Project

Upon completion of the core and elective course requirements, the student will take 3350:385 Planning Seminar (one credit). In this seminar the student will produce a final paper covering a city or regional resource planning topic chosen by the student and approved by the director of the program. Each project will be presented to the seminar class and critically analyzed.

A grade of "C" or better is required in all courses undertaken as part of the certificate program. In the five core courses an average grade of "B" is required.

PROFESSIONAL COMMUNICATION

Joseph F. Ceccio, Ph.D.; Dudley Turner, Ph.D., *Co-directors*

Requirements

The program will help meet our technological society's growing need for educated people who can develop sophisticated strategies for effective communication of business and technical information. People in the business community increasingly depend on communication to solve complex management, sales and information processing problems. The communication demands of business and industry are significant, and in many ways, different from those dealt with in traditional courses and majors. Undergraduates in various fields and those who already possess a baccalaureate degree will wish to study specifically to meet communication demands. A formal certificate will recognize their preparation for handling the communication needs of business and industry. This certificate must be earned concurrently with an undergraduate (associate or bachelor's) degree. A student who already possesses an undergraduate degree may directly pursue this certificate.

Program

		Credits
3300:390	Professional Writing I	3
3300:391	Professional Writing II	3
7600:309	Public Relations Publications	3
7600:345	Business and Professional Speaking	3

Because all four courses have prerequisites, students should consult course descriptions in **Section 8** for each course description.

PROFESSIONAL SELLING

Jon M. Hawes, Ph.D., *Coordinator*

This certificate program provides students with the opportunity to develop and document professional selling skills. It is especially appropriate for students pursuing non-business baccalaureate degrees with an interest in technical sales careers upon graduation. It is also a valuable means for postbaccalaureate students to learn professional selling skills in order to enhance their employment potential.

Requirements

A total of 15 credit hours are required for the certificate program. The student must complete 9 credit hours of required courses. In addition, 6 credit hours must be selected from a list of electives. Students should contact the Director of Undergraduate Studies in Business for information on transfer credit and to request that notation of the certificate be included on the student's transcript upon completion of the 15 credits.

Program

- Required: Complete all 9 credits

6600:300	Marketing Principles	3
6600:375	Professional Selling	3
6600:475	Business Negotiations	3

- Elective: Select any 6 credits

6600:350	Advertising	3
6600:355	Buyer Behavior	3
6600:370	Purchasing	3
6600:470	Business to Business Marketing	3
6600:480	Sales Management	3
7600:235	Interpersonal Communication	3
7600:252	Persuasion	3

REAL ESTATE

Requirements

Prelicensing Courses – Real Estate Sales

Successful completion of the four (4) state required prelicensing courses prepares and permits students to sit for the Division of Real Estate state licensing exam in real estate sales.

Certificate Program and Prelicensing – Real Estate Broker

The certificate program is designed to serve the needs of the practicing real estate professional and prospective real estate broker. Course offerings are designed to allow a student to earn a Certificate in Real Estate and/or complete the course educational requirements to become licensed as a real estate broker. To receive the certificate, the student must complete the required courses with a minimum 2.00 grade-point average. A minimum of 12 credit hours must be earned in the University's Real Estate Program.

Admission

All prelicensing and certificate applicants must apply to the University and meet its admission requirements. The person wishing to pursue a certificate must sign a contract with the Community and Technical College which will indicate the required course of study and such work that may be transferred from real estate programs outside the University..

Program

Prelicensing - Sales

		Credits
2430:105	Real Estate Principles	2
2430:185	Real Estate Law	2
2430:245	Real Estate Finance	2
2430:255	Valuation of Residential Property	2

Certificate and Pre-Licensing - Broker

2430:105	Real Estate Principles	2
2430:185	Real Estate Law	2
2430:245	Real Estate Finance	2
2430:255	Valuation of Residential Property	2
2430:265	Real Estate Brokerage	2
2430:275	Real Estate Projects	2
2520:212	Principles of Sales	4

Electives Minimum of one course

2040:242	American Urban Society	3
2420:170	Business Mathematics	3
2420:202	Personnel Practices	3
2430:235	Commercial Real Estate	2
2440:103	Software Fundamentals	3
2520:103	Principles of Advertising	3

RETAIL MARKETING

Dale M. Lewison, Ph. D., *Coordinator*

This certificate program provides students with the opportunity: (1) to learn and apply the basic concepts, processes, and practices of retail marketing, (2) to develop and document the foundation skills needed to successfully complete the basic operating functions of a retail business and (3) to understand and appreciate the types of workplace competencies needed to be successful in the retailing industry. This certificate program is especially appropriate for students pursuing non-business degrees with an interest in working within the retailing industry. It is also a valuable means for postbaccalaureate students to gain additional training in order to enhance their potential for employment or promotion.

Requirements

A total of 15 credit hours is required for the certificate program. The student must complete 12 credit hours of required courses. In addition, a 3-credit hour course must be selected from a list of electives.

Program

- Required: Complete all courses - 12 credits

		Credits
6600:300	Marketing Principles	3
6600:305	Essential of Retailing	3
6600:309	Essential of Retail Merchandising	3
6600:450	Strategic Retail Management	3

- Electives: Complete one course - 3 credits

6600:350	Advertising	3
6600:355	Buyer Behavior	3
6600:375	Professional Selling	3
6600:390	Marketing Channels	3

RUSSIAN AREA STUDIES

Barbara Clements, Ph.D., *Coordinator*

Requirements

To obtain a certificate in Russian Area Studies, the undergraduate will satisfy the requirements for a baccalaureate major in the field of study of his or her choice. In addition the student will complete two years of Russian language(14 credits) and will also complete 12 additional credits in courses dealing with the study of Russia. These courses may be selected from the following list:

Economics

3250:450/550	Comparative Economic Systems	3

Geography

3350:358	U.S.S.R.	3

History

3400:458/558	Russia to 1801	3
3400:459/559	Russia since 1801	3

Political Science

3700:300	Comparative Politics	4
3700:322	Soviet and East European Politics	3

SMALL BUSINESS MANAGEMENT

This program is designed to address the expressed needs of small business students, many of whom are presently, or soon will be, small business owners and are interested in acquiring specific knowledge that will help them in their business immediately. This program would be valuable for many non-business majors who could benefit by this exposure to business concepts. The emphasis is on serving the objectives of those students seeking autonomy in exercising their initiative and ambition, including both traditional and non-traditional students.

The awarding of this certificate is not contingent upon completion of a degree program.

		Credits
2420:117	Small Business Development	3
2420:118	Small Business Management and Operations	3
2420:170	Business Mathematics	3
2420:211	Basic Accounting I	3
2420:227	Entrepreneurship Projects	4
2420:280	Essentials of Business Law	3
2440:103	Software Fundamentals	2
2540:119	Business English	3

SUPERVISION AND MANAGEMENT

The Supervision and Management Certificate Program is aimed at providing knowledge and skills to the new and existing supervisor as well as to the individual who aspires to a supervisory position. The certificate program has been carefully designed to be flexible in order to meet the needs of various organizations and individuals. This program is in response to what many employers in the area have identified as a need that the Community and Technical College could help them meet. This certificate may be earned independent of earning a degree.

A minimum of 21 semester hours is required as follows:

Interpersonal Skills

2040:240	Human Relations	3
2040:251	Human Behavior at Work	3

One course must be taken from each of the following three categories:

Management Theory and Skills

2250:260	Administration in the Public Services (Inactive)	3
2420:103	Essentials of Management Technology	3
2880:100	Basic Principles of Manufacturing Management	4

Communication Skills

2020:121	English	4
2020:222	Technical Report Writing	3
2540:263	Business Communications	3

Math

2030:151	Elements of Math I	2
2030:152	Elements of Math II	2
2420:170	Business Mathematics	3

In addition to the above courses, a minimum of 6 credits must be completed from the following:

2040:247	Survey of Basic Economics	3
2420:202	Personnel Practices	3
2420:211	Basic Accounting I	3
2440:103	Software Fundamentals	2
2540:265	Women in Management	3
2880:210	Controlling and Scheduling Production	2
2880:232	Labor Management Relations	3
2880:241	Introduction to Quality Assurance	3

SURGICAL TECHNOLOGIST

Melanie Ditchey, B.S.A.S., A.A., CSA, CST

The program provides skills necessary to function as a surgical technologist and all the courses needed to sit for the certifying exam. It will enable students to meet short-range goals in acquiring skills for immediate job placement. A certificate may be earned independent of earning a degree.

		Credits
2740:120	Medical Terminology	3
2740:230	Basic Pharmacology	3
2770:100	Introduction to Surgical Assisting Technology	4
2770:121	Surgical Assisting Procedures I	2
2770:131	Clinical Application I	2
	or	
2770:151	Clinical Experience I*	
2770:148	Surgical Anatomy I	3
2770:222	Surgical Assisting Procedures II	4
	or	
2770:249	Surgical Anatomy II*	
2770:232	Clinical Application II	5
	or	
2770:152	Clinical Experience II*	
2770:233	Clinical Application III	5
3100:130	Principles of Microbiology (Lab)	3
3100:208	Human Anatomy and Physiology (Lab)	4
3100:209	Human Anatomy and Physiology (Lab)	4

TEACHING ENGLISH AS A SECOND LANGUAGE†

Kenneth J. Pakenham, Ph.D., *Director*

Requirements

This program is intended for those who seek training in the teaching of English as a second language (ESL) at the elementary or high school level or who wish to obtain an initial qualification in teaching ESL in order to teach in settings other than the Ohio public school system. For Ohio certification in teaching ESL, see TESOL Validation requirements in **Section 4** of this Bulletin under the College of Education.

The program is designed to introduce the student to the central issues in the theory and practice of teaching English to non-native speakers through courses in modern and applied linguistics, in second language pedagogy and in related disciplines.

Students who do not have English as a native language must demonstrate adequate proficiency in English with a valid TOEFL score of at least 550.

Program

This certificate requires the completion of four core courses and two elective courses for a minimum of 18 credits.

Core

3300:473	Special Topics: Teaching ESL: Theory and Method	3
3300:489	Special Topics: Grammatical Structures of English	3
5630:481	Multicultural Education in the U.S.**	3
	or	
3300:489	Special Topics: Sociolinguistics**	3
5630:487	Techniques for Teaching ESL	4

Electives

		Credits
3300:371	Introduction to Linguistics	3
3300:389	Special Topics in Linguistics	3
3300:470	History of the English Language	3
3300:472	Syntax	3
3300:489	Special Topics: Sociolinguistics‡	3
3580:405	Spanish Linguistics	4
3870:461	Language and Culture	3
5630:485	Teaching Reading and Language Arts to Bilingual Students	4
7600:325	Intercultural Communication	3
7700:230	Speech and Language Development	3
7700:430	Aspects of Normal Language Development	3

TECHNICAL TRAINING

Persons are eligible for admission to the Certificate in Technical and Skills Training if they have been admitted to study as special, non-degree or full-time students in any department of the University. Undergraduate students will earn the certificate upon graduation from their degree program. Individuals who already hold undergraduate degrees or graduate degrees may also pursue the certificate. Students with an undergraduate degree and who do not seek a graduate degree may pursue the certificate at the post-baccalaureate level. Students enrolled in the undergraduate and post-baccalaureate program will enroll in the courses at the undergraduate level.

Those formally admitted to The University of Akron and meeting the Certificate entrance requirements may pursue the Certificate in Technical Training. Students shall seek admission to this program by filing an application with the Technical Education Certificate coordinator. The student will schedule courses with the assistance of an advisor in the Technical Education Program.

Requirements

Minimum: 18 credit hours

5100:420	Introduction to Instructional Computing	3
5400:400	The Postsecondary Learner	3
5400:403	Practicum Seminar in Technical Education	3
5400:415	Training in Business/Industry	3
5400:430	Curriculum Development in Technical Education	3
5400:435	Instructional Techniques in Technical Education	3

NOTES: The Practicum course is the last taken and cannot be taken until all other certificate courses have been completed with a 3.0 GPA or better. 5400:430 must be taken before 5400:435.

TRANSPORTATION STUDIES

The certificate program in Transportation Studies is aimed at developing technical knowledge and skills in the area of freight transportation management.

2560:110	Principles of Transportation	3
2560:118	Transportation Rate Systems	3
2560:221	Traffic and Distribution Management	3
2560:222	Microcomputer Applications in Transportation	3

In addition to the above core, a minimum of six semester credits must be completed from the following:

2560:115	Motor Transportation	3
2560:116	Air Transportation	2
2560:117	Water Transportation	2
2560:224	Transportation Regulation	3
2560:227	Transportation of Hazardous Materials and Waste	2

This certificate program in Transportation Studies may be earned independent of earning a degree.

† The awarding of this certificate is not contingent upon completion of a degree program. Undergraduate certificate programs require a 2.00 grade-point average; graduate certificate programs require a 3.00 grade-point average.

** Choice to be decided in consultation with the program director.

‡ May not be taken both as an elective and as a core course.

Research Centers and Institutes

University Research Council

Mark S. Auburn, Ph.D., *Interim Associate Provost (Interim Chair)*
Constance B. Bouchard, Ph.D., *History*
Roger Creel, Ph.D., *Dean, Buchtel College of Arts and Sciences*
Charles Dye, Ph.D., *Dean, Graduate School*
Frank Kelley, Ph.D., *Dean, College of Polymer Science and Polymer Engineering*
S. Graham Kelly, Ph.D., *Interim Dean, College of Engineering*
Noel L. Leathers, Ph.D., *Interim Senior Vice President and Provost*
Ted Mallo, J.D., *Vice President and General Counsel; Secretary, Board of Trustees*
Isadore Newman, Ph.D., *Education; Associate Director, Life Span Development and Gerontology*
Gerald M. Parker, *Director, Research Services and Sponsored Programs*
Mark B. Tausig, Ph.D., *Sociology*
James L. White, Ph.D., *Director, Institute of Polymer Engineering*

The University Research Council is responsible for encouraging, supporting, and making recommendations pertaining to sponsored and contractual research carried out at the University's departments, centers, and institutes. The council consists of the Interim Associate Provost, the Director of Research Services and Sponsored Programs, representatives of the Faculty Senate, various college deans and institute directors, and General Counsel. Sponsored research activities on campus are coordinated by the Interim Associate Provost and the Director of Research Services and Sponsored Programs.

Ray C. Bliss Institute of Applied Politics

John C. Green, Ph.D., *Director*

The Ray C. Bliss Institute of Applied Politics is a public education and research adjunct of The University of Akron and its Department of Political Science. The broad purposes of the institute, in keeping with the career of its namesake, Ray C. Bliss, are: to give all citizens, and particularly students, an opportunity to learn how to become active and competent in political life; to help maintain a tradition of ethical public service in politics; to foster useful relationships between applied politics and political science; to promote public comprehension of political organizations and the requirements for their effectiveness; and to improve understanding of continuity and change in American political institutions.

Institute for Biomedical Engineering Research

Stanley Rittgers, Ph.D., *Director*

This institute was established in 1979 to promote interdisciplinary studies in the rapidly growing areas of knowledge which overlap the fields of biology and medicine, on the one hand, and engineering and the physical sciences, on the other. It conducts seminars, courses and degree programs in biomedical engineering in association with the College of Engineering and individual departments.

In addition to its research and educational functions, the institute provides a research service to local hospitals and industry, as well as to private and government agencies. The premise for this program is that the combined resources of the University, Northeastern Ohio Universities College of Medicine and affiliated organizations will often permit more cost-effective solutions than would be possible by an individual or group doing the research independently.

The work of the institute is carried out by faculty of the Department of Biomedical Engineering in association with "members" selected from the faculties of The University of Akron and Northeastern Ohio Universities College of Medicine, as well as from the ranks of area physicians, engineers and scientists. The institute and the department occupy the third floor of the Olson Research Center on the north edge of the campus.

Center for Conflict Management

For information, contact the office, 201 Leigh Hall, (330) 972-6513.

The Center for Conflict Management provides students with an opportunity for an interdisciplinary program of study in resolving and managing conflicts in the areas of Business/Economics/Labor, Family/Community and the International arena. Course programs draw on the resources of a wide spectrum of the University's academic departments. Upon completion of all selected courses, students receive not only academic credits for the courses but a Certificate for Conflict Management in their area of specialization. The Center also sponsors workshops for teachers, special campus programs, and research projects. It also collaborates with community organizations and similar programs on other campuses.

Center for Economic Education

Fred M. Carr, Ph.D., *Director*

The center exists to improve the economic literacy of individuals to help them function competently as citizens, producers and consumers.

The center conducts workshops, seminars and economic programs for teachers, students and interested groups. It provides consulting services in the area of economic education and acts as a clearinghouse for the gathering and dissemination of economic education materials and programs. It also fosters an understanding and appreciation of the American economic system.

Center for Environmental Studies

Annabelle M. Foos, Ph.D., *Interim Director*

The Center for Environmental Studies matches the expertise of 95 affiliates in 33 disciplines with the needs of students seeking study and research opportunities in complex environmental issues. Since its founding in 1970, the center has sponsored, or in other ways supported, activities appropriate to the goal of attaining a quality environment for mankind.

The center coordinates special forums, workshops and seminars that address major issues. Examples include the National Energy Forum, the World Food Forum, and Evaluation of Environmental Data. Workshops on energy, natural history and environmental studies in England also emphasize the interdisciplinary approach to the resolution of issues.

Center for Family Business

Susan C. Hanlon, D.B.A., *Director*

The Center for Family Business provides seminars, conferences and round table groups to help business owners address problems unique to family enterprises. The center seeks to increase the survival rate of family-owned businesses by focusing on the special challenges inherent in multigenerational family enterprises.

Center for Family Studies

Helen K. Cleminshaw, Ph.D., *Director*

The Center for Family Studies, established in 1979, was designed to stimulate and encourage the interdisciplinary study of the family. It serves both the University and the community by fostering collaboration between faculty, students, practitioners and community leaders on curriculum development, educational conferences and seminars, research and training, and public policy relevant to important family issues.

The Center is represented by faculty from five colleges and over 15 disciplines. It also includes leaders from various community systems, such as schools, hospitals, courts, churches, mental health, social and health care agencies. In addition, the Center has a fellows program in which outstanding faculty and community leaders are named as either fellows, adjunct fellows or senior fellows.

The Center offers certificates in the following specialty areas: Divorce Mediation and Home-Based Intervention. For more information, please refer to the descriptions of Interdisciplinary and Certificate Programs in **Section 6** of this Bulletin.

Any student, faculty member or community person interested in family issues is invited to call the director to learn how they can participate or learn more about the Center's activities.

Center for Nursing

Elizabeth Kinion, Ed.D., *Director*

The Center for Nursing is a part of The University of Akron's College of Nursing. It is an education and practice center for College of Nursing faculty and students as well as faculty and students from other health care disciplines on campus.

Since 1981 the Center for Nursing has provided wellness services to campus students, faculty and staff as well as outreach services to community residents of all ages. Services include health assessments and nursing physicals, stress management and self-care assistance, family and group education and support sessions. Community outreach to vulnerable populations is a major emphasis of the center.

Center for Organizational Development

Mark Lewis, M.A., Director

The Center for Organizational Development in the College of Business Administration was established to meet the training and development needs of the business community. The Center offers management development seminars, programs, conferences, and consulting services designed to enhance the skills of individuals and improve company productivity in a rapidly changing world. The Center specializes in offering dedicated supervisory training and management development programs that are custom designed to meet the specific needs of companies.

Center for Small Business

Jeffrey C. Dilts, Ph.D., *Director*

Established in 1973, the Center for Small Business (formerly the Small Business Institute) offers full management assistance counseling to area businesses through the utilization of senior students, working as advisors under the supervision of College of Business Administration faculty. Over 350 firms have been serviced by the Center since its founding.

Center for Urban Studies

Nancy K. Grant, Ph.D., *Director*

The Center for Urban Studies (CUS) is The University of Akron's oldest policy research and professional service unit. Established in 1965, the Center acts as a bridge between the University and the Akron community, Ohio and beyond in pursuit of the University's urban mission.

Using the talents of faculty, researchers, support staff, and students, the Center explores important economic, social, and political issues; works with others to reach a better understanding of these issues; and assists groups and organizations actively engaged in problem solving, coalition building, or strategic planning.

This multidisciplinary approach encourages faculty and graduate student participation from all departments with an urban focus. A part of the Buchtel College of Arts and Sciences, the Center for Urban Studies provides the setting and facilities through which interested faculty and graduate students do become involved in urban research or professional service activities in the urban community. For many graduate students, experience gained in the Center for Urban Studies becomes an important complement to formal classroom training in their career participation.

Fisher Institute for Professional Selling

Jon M. Hawes, Ph.D., *Director*
James T. Strong, Ph.D., *Associate Director*

The Fisher Institute for Professional Selling was founded in 1994. Its mission is to enhance the image of the sales profession, to promote professional selling and sales management as a rewarding lifetime career, to provide high quality sales training and learning experiences, and to advance the knowledge of professional selling through the support of applied research.

William and Rita Fitzgerald Institute for Entrepreneurial Studies

In 1995, a generous gift from William and Rita Fitzgerald created the Fitzgerald Institute for Entrepreneurial Studies in the College of Business Administration. The Institute was established to promote the principles of free enterprise and encourage entrepreneurial spirit and practices both within the University's curriculum and throughout the business community.

The Fitzgerald Institute focuses on the development of curriculum appropriate for both new ventures and the entrepreneurial development and growth of existing businesses. The Institute provides the needed link between the University and the community of entrepreneurs critical to business development in the future. The Fitzgerald Institute also sponsors several outreach projects, such as the Center for Family Business, the Center for Small Business, and Students in Free Enterprise.

For information, contact the Institute, CBA 330, (330) 972-7038.

Institute for Futures Studies

Gary Gappert, Ph.D., *Director*

The Institute for Futures Studies and Research exists to initiate and provide comprehensive programs in salient and vital policy research, including a structural framework which encompasses strategic planning, environmental scanning, trends analysis and other innovative research methods.

The Institute for Futures Studies and Research was established in 1978, with its focus on interdisciplinary courses, lectures, publications, and activities relating to relevant issues which will impact the future of the local, state, national, and international arenas. It cooperates with the Center for Urban Studies and other research institutes.

Through its relationship with the Department of Public Administration and Urban Studies and The Center for Urban Studies, the Institute has organized and produced several books relating to the urban future including Cities in a Global Society and The Future of Urban Environments. It has also sponsored major conferences on George Orwell, Aldous Huxley, and Edward Bellamy in cooperation with the Ohio Humanities Council.

Institute for Global Business

James W. Barnett, B.B.A., *Director*

The University of Akron received special funding from the State of Ohio to expand its offerings of undergraduate and graduate degree programming in international business. Thus, the College of Business Administration (CBA) created the Institute for Global Business, which coordinates both credit and noncredit programming in international business. The institute also develops short courses and seminars designed to help improve the international competitiveness of area business.

Institute for Life-Span Development and Gerontology

Harvey L. Sterns, Ph.D., *Director*
Isadore Newman, Ph.D., *Associate Director*
Terry H. Albanese, Ph.D., *Program Coordinator, Gerontology Certificate Program; and Practicum Coordinator*
Jerome Kaplan, Ph.D., *Program Coordinator, Nursing Home Administrator Program*

The Institute for Life-Span Development and Gerontology, founded in 1976, coordinates multidisciplinary credit certificate programs in gerontology at the undergraduate and graduate levels. In addition, this certificate is included in the Ohio Board of Examiners of Nursing Home Administrators approved course of study in Nursing Home Administration which combines a Bachelor of Science degree in management (Human Resource Management Concentration) with a Certificate in Gerontology.

The Institute of Life-Span Development and Gerontology has grown into a campus-wide program involving more than 65 faculty in 23 different departments, representing six colleges. Students in the certificate programs carry out field placements at numerous community service settings. There are more than 40 courses at the undergraduate and graduate levels. Research, education, training and service support has been received from the U.S. Administration on Aging, National Institute on Aging, U.S. Department of Education, Office of Special Education and Rehabilitation Services, National Institute on Disability and Rehabilitation Research, AARP Andrus Foundation, Ohio Department of Aging,

and Area Agency on Aging 10B. The Institute also serves as a major site for the Rehabilitation Research and Training Center Consortium on Aging and Developmental Disabilities involving seven universities in six states.

Examples of outreach activities include the Elderhostel program, offered each summer for older adults who participate in a week-long residential learning experience.

The institute is a member of the Northeastern Ohio Consortium on Geriatric Medicine and Gerontology, joining together with the Office of Geriatric Medicine and Gerontology, Northeastern Ohio Universities College of Medicine; Gerontology Center, Kent State University; and Gerontology Committee, Youngstown State University.

Institute for Policy Studies

Jesse F. Marquette, Ph.D., *Director*
AnneMarie Scarisbrick-Hauser, Ph.D., *Associate Director*
Richard W. Stratton, Ph.D., *Associate Director*

The Institute for Policy Studies houses a number of programs, located in two units, the Urban and Policy Research Division and Institutional Research.

The Urban and Policy Research Division houses the University of Akron Survey Research Center with responsibility for external grant and contract research, research support for the Urban University Linkage Program, sponsored research for faculty, and internal University surveys. The research facility is equipped to facilitate telephone interviewing, mail surveys, focus group administration, intercept studies and personal interviews, database analysis, and computer assisted data entry and multiple method studies. Most of the work conducted at the Urban and Policy Research Division is on behalf of government or non-profit agencies. Institutional professional staff are available for consultation in the development of grant proposals and budgets.

The Urban and Policy Research Division (URPD) also has responsibility for the administration of the Ohio Board of Regent's Urban University Program (UUP) which links eight state universities to collaborate on the identification of urban problems and propose solutions designed to improve urban regions in Ohio. The University of Akron Urban University Program, in addition to the collaborative mission of the Ohio UUP, coordinates community oriented research and policy analysis. The URPD also houses an Ohio State Data center and coordinates GIS activities with the Department of Geography and Planning.

The Institutional Research Division has responsibility for research and analysis of University operations and assessment. The Institutional Research Division mission is to ensure the timely submission of all appropriate Ohio Board of Regents reports and to coordinate the development and maintenance of the appropriate data structures for the continuing analysis of university operations and assessment. The Institutional Research Division also maintains a regularly updated web site of institutional information.

Institute of Polymer Engineering

James L. White, Ph.D., *Director*

The Institute of Polymer Engineering carries out fundamental and applied research in polymer processing, engineering performance and associated characterization.

The institute, founded in 1983, seeks to be a major intellectual and research resource in northeast Ohio. The institute maintains up-to-date and futuristic processing and characterization laboratories, with continued interest in development investigation of new process technology and new materials. Its activities also include organization of scientific symposia and various seminars related to polymer processing and engineering.

The Maurice Morton Institute of Polymer Science

Frank Harris, Ph.D., *Director*

The institute is concerned with basic and applied research in polymers. It was established in 1956 as the Institute of Rubber Research and in 1964 became the interdisciplinary Institute of Polymer Science. The University's first Ph.D. program in polymer chemistry was started in 1956 and was administered by the institute until a separate Department of Polymer Science was established in 1967. The institute maintains extensive laboratory facilities, an applied research group, a macromolecular modeling center, and a mini pilot plant for polymer synthesis. It is the principal organization responsible for external funding of research projects and graduate fellowships in polymer science.

Microscale Physiochemical Engineering Center (MPEC)

George G. Chase, *Director*

The Microscale Physiochemical Engineering Center (MPEC) was established in 1996 by faculty with a common research interest in materials composed of very small particles. These small particles occur, for example, in heterogeneous catalysts, fluid/solid separations, paper-pulp processing, soil remediation, waste water decontamination, and solid transport.

The unique feature of MPEC is the ability to form multi-disciplinary teams of faculty and graduate students to solve specific industrial problems.

The Center hosts an annual conference, promotes networking, provides a forum for industrial-university cooperation, and is a consortium of industrial sponsors for fundamental and applied research in microscale physiochemical engineering.

Process Research Center (PRC)

Sunggyu Lee, Ph.D., *Director*
Kathy L. Fullerton, Ph.D., *Assistant Director*

The Process Research Center (PRC), founded in 1990, focuses on fundamental and applied research involving new chemical processes and novel materials.

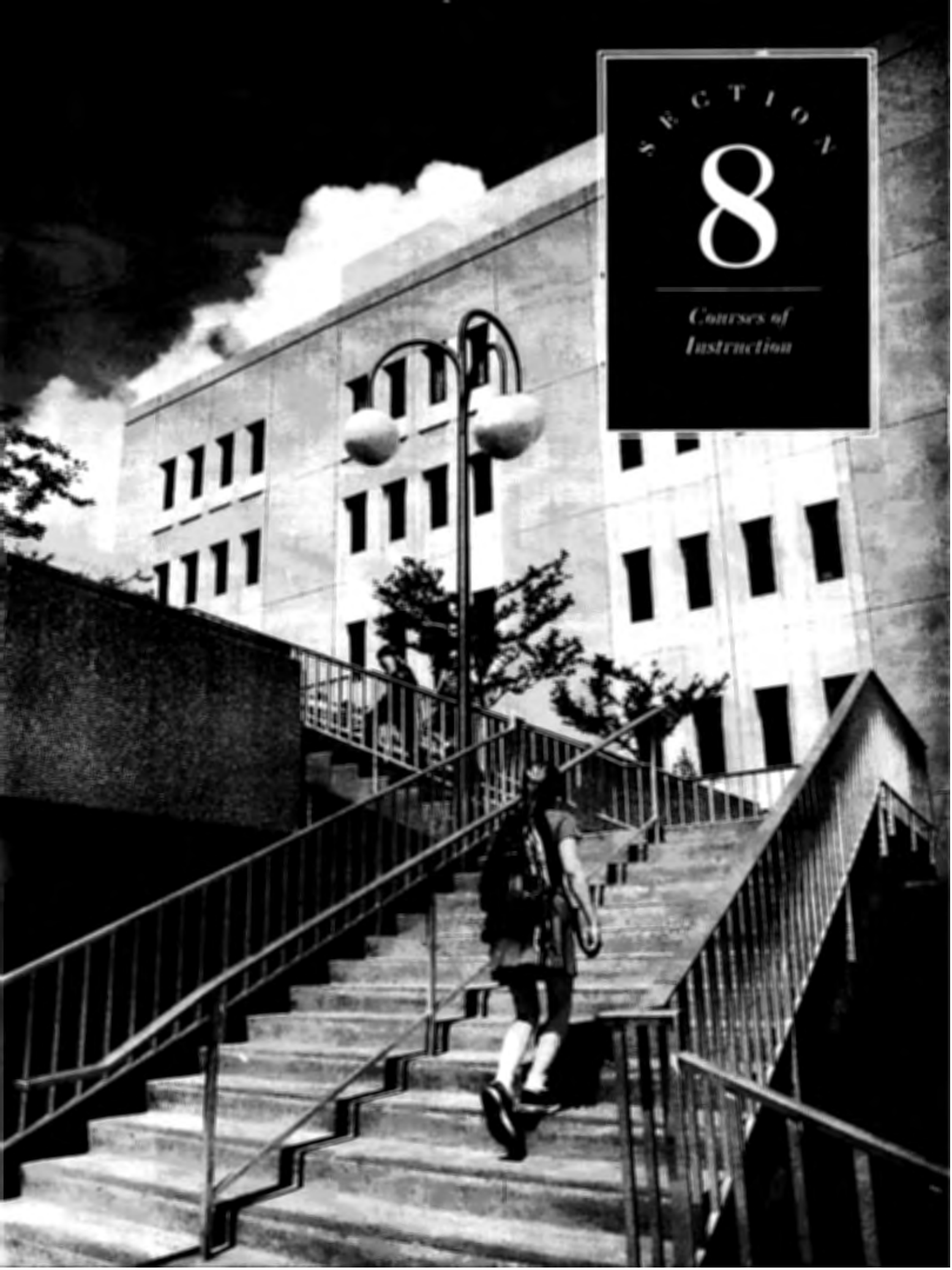
The specialties of the PRC include chemical reactions, separation technology, new polymeric materials, biotechnology, and environmental engineering. In conjunction with this, the Center operates several scale-up and minipilot plant facilities.

The PRC aims at responding more positively to the needs of industries and enhancing cooperation between the University and industries. Great opportunities are available for both graduate and undergraduate students to conduct practical research.

Training Center for Fire and Hazardous Materials

David H. Hoover, Ph.D., *Director*

The Training Center for Fire and Hazardous Materials brings the University, government and industry together into one comprehensive regional center to integrate educational programs, fire and hazardous materials training and other applications of fire and safety technology. The center coordinates seminars and workshops presented by the Federal Emergency Management Agency (FEMA), the Division of State Fire Marshal and other related organizations. Training in all phases of hazardous materials containment and fire prevention and control is provided under contract to various municipalities, industries and agencies. The programs are supported by the faculty of the Fire Protection Technology degree program in association with other state and nationally recognized professionals.



SECTION

8

Courses of Instruction

Course Numbering System

INDEX

** Graduate-level courses only. See *Graduate Bulletin.*

Department of Developmental Programs

DEVELOPMENTAL PROGRAMS (non-degree)

1020:

042 BASIC WRITING *4 load hours***
Provides intensive practice in the process of writing, in sentence structure and punctuation, and in correct written expression. Upon successful completion of Basic Writing II, the student should be prepared to enter English (2020:121), or English Composition I (3300:111). Writing Lab hours are required.

050 BASIC MATHEMATICS I *4 load hours***
Prerequisite: Placement. An intensive review of arithmetic and an introduction to the concepts of elementary algebra. Emphasis is placed on developing learning strategies and controlling anxieties. Upon successful completion of Basic Mathematics I, the student should be prepared to enter Basic Mathematics II.

052 BASIC MATHEMATICS II *4 load hours***
Prerequisite: Basic Mathematics I (1020:050), or Placement. A brief review of arithmetic and intensive instruction in elementary algebra. Emphasis is placed on developing learning strategies and controlling anxieties. Upon successful completion of Basic Mathematics II, the student should be prepared to enter Business Mathematics (2420:170); Introduction to Technical Math (2020:130); Elements of Math I (2030:151); or Preparatory Math (3450:100).

060 COLLEGE READING *4 load hours***
Prerequisite: Placement. Designed to strengthen the basic comprehension skills needed for academic work, including recognition of main points and key supporting ideas, inferencing, summarizing, and vocabulary development. Upon satisfactory completion of College Reading, the student should be prepared to enter College Reading and Study Skills (1020:062). Reading Lab hours are required.

062 COLLEGE READING AND STUDY SKILLS *4 load hours***
Prerequisite: College Reading (1020:060) or placement. Continued practice of comprehension strategies with emphasis on textbook reading, and implementation of effective study strategies such as note-taking, test-taking, and memory techniques. Upon successful completion of College Reading and Study Skills, the student should be prepared to apply reading and study strategies in college classes. Reading Lab hours are required.

064 APPLIED STUDY STRATEGIES *2 load hours***
Corequisite: Selected General Education Courses taken concurrently. Designed to help students apply various study strategies to a specific course, such as psychology, sociology and others. Includes lecture and textbook analysis, memory techniques, and test-taking strategies.Lab hours are required.

066 CRITICAL READING AND REASONING *2 load hours***
Prerequisite: Placement score on Reading test or ACT/SAT. Designed to aid students who have adequate basic reading skills but need to focus on the higher thinking skills. It will involve cognitive strategies that can bolster analytic thinking, retention, and test performance through self-monitoring and decision-making. Lab hours are required.

071 DEVELOPMENTAL CHEMISTRY *4 load hours***
Prerequisite: Basic Mathematics II (1020:052) or equivalent. A mathematics review applied to chemistry and intensive instruction in principles of general chemistry. Emphasis is placed on developing learning strategies and controlling anxieties.

** Load hours do not carry academic credit toward a degree program but do count in computing a student's course load for financial aid or student employment, and are used in probation and dismissal decisions.

ENGLISH LANGUAGE INSTITUTE

1030:

091 ENGLISH LANGUAGE INSTITUTE: WRITING
Provides intensive instruction in English writing for native speakers of languages other than English who are planning to seek admission to a United States university.

092 ENGLISH LANGUAGE INSTITUTE: READING
Provides intensive instruction in vocabulary and reading skills designed to develop the English reading ability of native speakers of languages other than English who are planning to seek admission to a United States university.

093 ENGLISH LANGUAGE INSTITUTE: SPEAKING/GRAMMAR
Provides intensive instruction in English grammar, with an emphasis on oral skills, for native speakers of languages other than English who are planning to seek admission to a United States university.

094 ENGLISH LANGUAGE INSTITUTE: LISTENING
Provides intensive laboratory and class instruction designed to improve the English listening skills of native speakers of languages other than English who are planning to seek admission to a United States university.

095 ENGLISH LANGUAGE INSTITUTE: COMPREHENSIVE
Provides intensive instruction in English writing, reading, listening and speaking for speakers of languages other than English who are planning to seek admission to a United States university. Offered only during the summer.

University College

GENERAL EDUCATION

1100:

100 UA STUDY ABROAD *12-20 credits*
Academic study at an affiliated institution outside the continental United States.

101 UNIVERSITY ORIENTATION *2 credits*
Acquisition of the skills, techniques, information, and strategies necessary to aid new students in their transition from high school or work to the college environment.

191 SPECIAL TOPICS: GENERAL EDUCATION *1-4 credits*

Air Force ROTC

AEROSPACE STUDIES

1500:

113,4 FIRST YEAR AEROSPACE STUDIES *1.5 credits each*
(AS100), General Military Course. Missions and organizations of Air Force and current events discussed to show how the military contributes to national defense. Leadership laboratory required.

253,4 SECOND YEAR AEROSPACE STUDIES *1.5 credits each*
(AS200), General Military Course. Emphasis on air power history. Films, lectures and class discussions. The politico-military environment is presented. Leadership laboratory required.

303,4 THIRD YEAR AEROSPACE STUDIES *3 credits each*
(AS300), Professional Officer Course. Management concepts in the military. Leadership theory, functions and practices; professionalism; and responsibilities. Communicative skills are developed. Leadership laboratory required.

453,4 FOURTH YEAR AEROSPACE STUDIES *3 credits each*
(AS400), Professional Officer Course. Focuses attention on the military profession, military justice systems, civil-military interactions, and the framework and formulation of defense policy. Communicative skills are developed. Leadership laboratory required.

Army ROTC

MILITARY SCIENCE

1600:

100 INTRODUCTION TO MILITARY SCIENCE I *2 credits*
Study of the mission of the Army, the principles of basic military leadership and management, land navigation, and opportunities in the Army. A geographical and cultural examination of the countries where U.S. soldiers are located. Leadership laboratory optional. No military obligation incurred.

101 INTRODUCTION TO MILITARY SCIENCE II *2 credits*
Study of the principles and techniques of military leadership and human resource management. Introduction to drill and ceremony, small unit tactics, briefing techniques, and public speaking. Leadership laboratory optional. No military obligation incurred.

200 BASIC MILITARY LEADERSHIP *2 credits*
Study of the principles of war and the art of leadership. Basic military skills taught through practical applications in marksmanship, map reading, first aid, and drill and ceremony. Leadership laboratory required. No military obligation incurred.

201 SMALL UNIT OPERATIONS *2 credits*
Study and application of the Leadership Development Program (LDP). Introduction to tactics, patrolling, and basic military skills. Leadership laboratory required. No military obligation incurred.

300 ADVANCED LEADERSHIP I *3 credits*
Prerequisites: 100, 101, 200, 201 and/or permission. Study in the application of military tactics, military history, military briefing techniques and equipment. Practical work with operations orders and planning, organizing, and executing training. Leadership laboratory required.

301 ADVANCED LEADERSHIP II *3 credits*
Prerequisite: 300 or permission. Study of leadership, leadership counseling and tactics at the small-unit level. Practical work with land navigation, marksmanship training, squad and platoon movement, and battlefield survival. Leadership laboratory required.

400 MILITARY MANAGEMENT I *3 credits*
Prerequisites: 300, 301, or permission. Intensive investigation of the leadership process to include applicatory work emphasizing officer ethics, duties, and responsibilities. Management and supervisory skills. Practical experience with the Leadership Development Program (LDP). Leadership laboratory required.

401 MILITARY MANAGEMENT II *3 credits*
Prerequisites: 300, 301, or permission. Study of officer leadership and managerial responsibilities. Study of Army command organization and procedures, training management, personnel system, Uniform Code of Military Justice, and continued emphasis on counseling and human relations. Leadership laboratory required.

490 SPECIAL TOPICS IN MILITARY SCIENCE *1-3 credits*
Prerequisite: permission. (May be repeated for a maximum of six credits) Content varies with special topics. Texts to be selected according to topic and will use relevant library periodicals and journals. Existing library resources are adequate to support the course. Basic Camp, Advanced Camp, Airborne, and other specialty schools qualify for course credit.

Interdisciplinary Programs

HONORS PROGRAM

1870:

250 HONORS COLLOQUIUM: HUMANITIES *2 credits*
Prerequisite: admission to University Honors Program. Interdisciplinary colloquium on important issues in humanities.

360 HONORS COLLOQUIUM: SOCIAL SCIENCES *2 credits*
Prerequisite: admission to University Honors Program. Interdisciplinary colloquium on important issues in social sciences.

470 HONORS COLLOQUIUM: NATURAL SCIENCES *2 credits*
Prerequisite: admission to University Honors Program. Interdisciplinary colloquium on important issues in natural sciences.

MEDICAL STUDIES

1880:

201 MEDICAL SEMINAR AND PRACTICUM I *3 credits*
Prerequisites: 3100:191. Provides field experiences in health-care delivery in geographic area served by Northeastern Ohio Universities College of Medicine and The University of Akron. Student directed in supervised roles of professional and paraprofessional in meeting health-care needs of community. Open to first-year student in Phase 1 of B.S./M.D. program.

301 MEDICAL SEMINAR AND PRACTICUM II *1-3 credits*
(May be repeated to a maximum of three credits) Prerequisites: 201 and permission. Continuation of 201 offered at an advanced level of professional involvement. Open to second-year student in Phase 1 of B.S./M.D. program, others by permission.

310 MEDICINE AND THE HUMANITIES *3 credits*
Medical history, literature, and ethics from the perspective of the Humanities, with readings from original sources and literary works on medical subjects.

401/501 SPECIAL TOPICS: MEDICAL EDUCATION *1-3 credits*
(May be repeated with a change of topic with a maximum of three credits toward graduation.) Prerequisites: upper-college student status and permission. Selected topics on medical education offered by professionals. Intended to provide advanced undergraduate education and continuing education for student and practitioners in the health sciences. Graded CR/NCR.

Community and Technical College

COOPERATIVE EDUCATION

2000:

201,301 COOPERATIVE EDUCATION *0 credits*
(May be repeated) Prerequisite: cooperative education students only. Work experience in business, industry or governmental agency. Comprehensive performance evaluation and written report required.

ASSOCIATE STUDIES ENGLISH

2020:

121 ENGLISH *4 credits*
English composition focused on considered thought and writing. Includes inventive writing, essay structure, consideration of strength and source of evidence, and study of various options for development.

222 TECHNICAL REPORT WRITING *3 credits*
Prerequisite: 121, 3300:111 or equivalent. Prepares student to write the types of reports most often required of technicians, engineers, and scientists. Includes types of reports, memoranda, and letters; techniques of research, documentation and oral presentations.

224 WRITING FOR ADVERTISING *4 credits*
Prerequisite: 121, 3300:111 or equivalent. Introduction to the copywriter's role in print advertising and collateral materials. Study of advertising language; practice in writing advertisements, brochures, sales letters. Includes writing for a portfolio.

226 ELECTRONIC REFERENCE RESOURCES IN THE COMPUTER AGE *3 credits*
Prerequisites: 2020:121 or 3300:111. Designed for individuals to broaden their scope and understanding of various electronic research techniques. Study, evaluation, and use of current emerging technologies will be examined.

290 SPECIAL TOPICS: ASSOCIATE STUDIES *1-4 credits*
(May be repeated with a change in topic) Prerequisite: permission. Selected topics on subject areas of interest in associate studies.

ASSOCIATE STUDIES MATHEMATICS

2030:

130 INTRODUCTION TO TECHNICAL MATHEMATICS *3 credits*
Elements of basic algebra; operations on signed numbers and polynomials; solutions and applications of first- and second-degree equations; English and metric systems; various types of graphs with applications; linear systems; trigonometry of right triangle. May not be used to meet General Studies mathematics requirement.

151 ELEMENTS OF MATHEMATICS I *2 credits*
Prerequisites: Two years of high school algebra and placement test. Fundamental concepts and operations, functions, graphs, factoring and algebraic fractions, variation, and quadratic equations.

152 ELEMENTS OF MATHEMATICS II *2 credits*
Prerequisite: 151 or three years high school mathematics and placement test. Trigonometric functions, systems of linear equations, determinants, trigonometric functions of any angle, the straight line, radians, the μ-operator.

153 ELEMENTS OF MATHEMATICS III *2 credits*
Prerequisite: 152 or equivalent. Complex fractions, exponents and radicals, binomial theorem, exponential and logarithmic functions. Arithmetic and geometric sequences, series optional.

154 ELEMENTS OF MATH IV *3 credits*
Prerequisite: 153 or equivalent. Graphs of trigonometric functions, complex numbers in polar form, trigonometric identities and equations, higher degree equations, analytic geometry of the straight line and conic sections.

161 MATHEMATICS FOR MODERN TECHNOLOGY *4 credits*
Prerequisite: 151 or placement by adviser. Numeration systems. Analytical geometry of the straight line, linear system. Matrices and matrix methods, determinants. Sets and logic. Probability and statistics. Math of finance.

255 ELEMENTS OF CALCULUS *3 credits*
Prerequisite: 154 or equivalent. The derivative, applications of the derivative, derivatives of the trigonometric, logarithmic, and exponential functions. Integration by antidifferentiation.

290 SPECIAL TOPICS: ASSOCIATE STUDIES MATHEMATICS *1-4 credits*
(May be repeated with a change in topic) Prerequisite: permission. Selected topics on subject areas of interest in associate studies.

345 BASIC TECHNIQUES FOR DATA ANALYSIS *2 credits*
Prerequisite: 154 or 161. Data summarization including graphic presentation, numerical measures, introduction to probability, confidence intervals and hypothesis testing. Computer usage incorporated. For Community and Technical College students only.

356 CALCULUS FOR TECHNICAL APPLICATIONS *3 credits*
Prerequisite: 255 or equivalent. Methods and applications of integration, first and second order differential equations, series expansion, Laplace transforms, partial derivatives, and double integrals.

ASSOCIATE STUDIES SOCIAL SCIENCES

2040:

230 TECHNICAL CAREER SEARCH SKILLS *1 credit*
Students will develop specific skills in resume writing, interviewing, self-directed job search, networking, researching employers, as well as learning the fundamentals of the job market.

240 HUMAN RELATIONS *3 credits*
Examination of principles and methods which aid in understanding the individual's response to society and the relationship between society and individuals.

241 TECHNOLOGY AND HUMAN VALUES *2 credits*
Examination of impact of scientific and technical change upon people, their values and institutional arrangements. Topics include biomedical technology, automation, economic growth, natural environment and technology and quality of life.

242 AMERICAN URBAN SOCIETY *3 credits*
Multidisciplinary treatment of urban processes and problems. Concerns historical, political, social, economic and other environmental forces which impact the individual in an urban setting.

244 DEATH AND DYING *2 credits*
Multidisciplinary approach to death and dying. Emphasis on coping with death and loss on the professional and personal levels.

247 SURVEY OF BASIC ECONOMICS *3 credits*
Introduction to economic analysis and issues designed for the student taking only one course in economics. Coverage includes economic systems, exchange, money and banking, national income, employment, fiscal policy and current domestic economic problems.

251 HUMAN BEHAVIOR AT WORK *3 credits*
Examination of relationship between human behavior and the work organization. Emphasis on how contemporary organizations are changing and what makes individuals within their organizations more effective.

254 THE BLACK AMERICAN *2 credits*
Prerequisite: 2020:121 or 3300:112. Examination of the black American including origins, historical achievements and present striving to achieve first-class citizenship in American society. Emphasis on analysis of forces in American society that create racial separation.

255 CONTEMPORARY ISSUES IN BLACK AMERICA *3 credits*
Examine contemporary issues in Black America, 1954-present. Compare segregation, integration, desegregation with equal opportunity and diversity as strategies ameliorating discrimination, racism and cultural differences.

290 SPECIAL TOPICS: ASSOCIATE STUDIES SOCIAL SCIENCES *1-4 credits*
(May be repeated with a change in topic) Prerequisite: permission. Selected topics on subject areas of interest in the social sciences.

INDIVIDUALIZED STUDY

2100:

190 INDIVIDUALIZED STUDY EVALUATION *1 credit*
Prerequisite: admission to program. A continuing assessment of the student's progress and program. Enrollment required during first semester in the Individualized Study Program.

EDUCATIONAL TECHNOLOGY

2200:

245 INFANT/TODDLER DAY-CARE PROGRAMS *3 credits*
Survey of infant/toddler development. Principles of infant/toddler care giving. Design of environment and curriculum based on child's needs. Includes observation of children. (20 field hours required)

246 MULTICULTURAL ISSUES IN CHILD CARE *3 credits*
The study of cultural differences in child care and preschool settings to improve caregiving practices and enhance communication between caregivers and parents.

247 DIVERSITY IN EARLY CHILDHOOD LITERACY *3 credits*
Examination and analysis of children's books and materials on diversity reflecting differences and similarities of groups of people that make up our society.

250 OBSERVING AND RECORDING CHILDREN'S BEHAVIOR *3 credits*
Prerequisite: 7400:265 or permission. Develops observing and recording skills using different types of records and assesses children's development and behavior. (23 field hours required)

290 SPECIAL TOPICS: EDUCATIONAL TECHNOLOGY *1-3 credits*
Prerequisite: permission. Selected topics on subject areas of interest in educational technology.

297 INDEPENDENT STUDY *1-3 credits*
(May be repeated for a total of six credits) Prerequisite: permission. Selected topics and special areas of study under supervision and evaluation of selected faculty member with whom specific arrangements have been made.

AMERICAN SIGN LANGUAGE INTERPRETING AND TRANSLITERATING TECHNOLOGY

2210:

111 INTRODUCTION TO SIGN, DEAFNESS AND INTERPRETING SERVICES *3 credits*
An introduction to gesturing, American Sign Language, fingerspelling, the Deaf community. It's culture and the use of interpreting services.

112 AMERICAN SIGN LANGUAGE I *4 credits*
Beginning ASL interpersonal communication skills will be introduced through a functional-notional approach.

114 AMERICAN SIGN LANGUAGE SEMANTICS AND STRUCTURE I *3 credits*
Prerequisite or corequisite: 112. Vocabularies and grammatical skills are developed through targeted sets of lexicons and structures in ASL.

122 AMERICAN SIGN LANGUAGE II *4 credits*
Prerequisite: Admission; 114. Advanced beginning ASL interpersonal communication skills will be continued through a functional-notional approach.

124 AMERICAN SIGN LANGUAGE SEMANTICS AND STRUCTURE II *3 credits*
Prerequisite or corequisite: 122. Further development of vocabularies and grammatical skills through targeted sets of lexicons and structures in ASL.

126 ADVANCED FINGERSPELLING AND NUMBERS *2 credits*
Prerequisite: 114. Advanced fingerspelling and number skills. Focus will be on increasing accuracy, clarity, speed and rhythm in the application of comprehensive and production skills.

128 THE PROFESSION OF INTERPRETING *3 credits*
Prerequisite: 111. A working knowledge of interpreting, including its history, interpreting service models, ethical issues, and overview of settings for interpretation.

232 AMERICAN SIGN LANGUAGE III *4 credits*
Prerequisite: 124. Designed to provide students with an intermediate level of study and application of American Sign Language grammar/syntax, idiomatic expressions, and colloquialisms.

234 TRANSLATIONS/INTERPRETING SKILLS: ENGLISH AND ASL *4 credits*
Prerequisite or corequisite: 232; corequisite: 236, required. A progression of developing intralingual skills in ASL and English from translations to introducing cognitive multi-tasking interpreting skills.

236 CONSECUTIVE INTERPRETING *4 credits*
Corequisite: 234, required. Consecutive interpretations of prepared and spontaneous texts from a progression of interpreting with substantial delays to immediate reconstruction at completion of the source message in the target language.

238 AMERICAN DEAF CULTURE *3 credits*
Prerequisite: 111. The culture of American Deaf communities, the roles and impact of sociolinguistic factors and oppression will be covered.

242 AMERICAN SIGN LANGUAGE IV *4 credits*
Prerequisite: 236. Designed to provide students with an advanced level of study and application of American Sign Language grammar/syntax, idiomatic expressions, and colloquialisms.

244 SIMULTANEOUS INTERPRETING *4 credits*
Prerequisite or corequisite: 242. Focus is on simultaneous multi-cognitive tasking skills with minimum time lag from the source message to target language.

246 THE INTERPRETER IN THE EDUCATIONAL SETTING *3 credits*
Prerequisite or corequisite: 244. A working knowledge of interpreting/transliterating in the educational setting with application of manual code systems and technical vocabularies.

248 INTERPRETING PRACTICUM I *2 credits*
Prerequisite or corequisite: 246. Provides the opportunity to integrate skills and knowledge through actual interpreting/transliterating in selected and controlled situations. Includes special communicative techniques with deaf consumers.

252 INTERPRETING PRACTICUM II *3 credits*
Prerequisite: 248; corequisite: 254, required. This course provides the opportunity to integrate skills and knowledge through actual interpreting in a variety of practicum settings.

254 APPLIED SITUATIONAL INTERPRETING *4 credits*
Corequisite: 252, required. Professional interpreting issues, application of situational interpreting skills and individual preparation and feedback for certification.

290 SPECIAL TOPICS: AMERICAN SIGN LANGUAGE INTERPRETING AND TRANSLITERATING TECHNOLOGY *1-5 credits*
Selected topics on subject areas of interest in American Sign Language Interpreting and Transliterating Technology.

297 INDEPENDENT STUDY: AMERICAN SIGN LANGUAGE INTERPRETING AND TRANSLITERATING *1-4 credits*
Prerequisite: Permission. (May be repeated for a maximum of 6 credits.) Selected topics and special areas of study under supervision and evaluation of selected faculty member with whom specific arrangements have been made.

CRIMINAL JUSTICE TECHNOLOGY

2220:

100 INTRODUCTION TO CRIMINAL JUSTICE *3 credits*
Overview of criminal justice system, its history, development and evolution within the United States including subsystems of police, courts, corrections. Constitutional limitations, current criminal justice practices human relations, professionalization, prevention.

101 INTRODUCTION TO SECURITY *4 credits*
Overview of functions, problems and strategies of contract and proprietary security agencies. Philosophy of the protection of assets based on risk analysis and cost effectiveness.

102 CRIMINAL LAW FOR POLICE *3 credits*
Prerequisite: 2220:100. Historical development and philosophy of the law. Thorough study of modern criminal law including Ohio Criminal Code and defenses to particular crimes.

104 EVIDENCE AND CRIMINAL LEGAL PROCESS *3 credits*
Prerequisite: 2220:100. Study of evidence law, constitutional perspectives and law enforcement officer's relationship thereto. Court procedures from arrest to incarceration.

106 JUVENILE JUSTICE PROCESS *3 credits*
Prerequisite: 2220:100. Examination of juvenile justice system, functions of its various components; adolescent subculture, legislation, causative factors, prevention and treatment methodologies and programs.

210 POLICE PATROL/TRAFFIC OPERATIONS *3 credits*
Prerequisite: 100. Designed to meet peace officer certification requirements. Emphases placed on basic patrol procedures, traffic enforcement, traffic engineering, and traffic safety education.

212 TRAFFIC ACCIDENT INVESTIGATOR *4 credits*
Prerequisite: OPOTC Certification. Traffic accident investigation basics with a further emphasis on technical aspects of investigation and follow-up.

222 INTERVIEW AND INTERROGATION *3 credits*
Prerequisite: OPOTC Certification. A course of study on interview and interrogation which will teach the student how to obtain information in an orderly, effective, and legally sufficient manner.

240 VICE AND ORGANIZED CRIME *3 credits*
Prerequisites: 100 and permission. An overview of organizations operating nationally and internationally in a variety of criminal activities with a particular emphasis on narcotics trafficking.

242 ORGANIZED CRIME/VICE CRIME *3 credits*
Prerequisite: 100. Comprehensive examination of origins, forms, and histories of organized crime, gambling, prostitution, and substance abuse; with special emphasis on law enforcement efforts and methods.

246 MULTICULTURAL ISSUES IN CHILD CARE *3 credits*
The study of cultural differences in child care and preschool settings to improve caregiving practices and enhance communication between caregivers and parents.

250 CRIMINAL CASE MANAGEMENT *6 credits*
Prerequisites: 100, 2820:105 and permission. Reconstruction of chronological sequence of a crime including searching, collection, preserving and evaluation of physical and oral evidence. Scientific approach to criminal investigation.

252 ADVANCED CRIMINAL CASE MANAGEMENT *4 credits*
Prerequisite: OPOTC Certification. Designed to meet the in-service police officer/investigators need to understand new/updated technology and approaches in managing criminal cases.

262 POLICE ADMINISTRATION *3 credits*
Prerequisite: OPOTC Certification. Approaches to police administration from an overview perspective providing the fundamentals of administration and management while giving the law enforcement student a framework for understanding.

290 SPECIAL TOPICS: CRIMINAL JUSTICE *1-4 credits*
(May be repeated for a total of six credits) Prerequisite: permission. Workshops and special programs in selected areas of criminal justice such as community relations, crime statistics, ethics, survival.

291 SPECIAL TOPICS: CRIMINAL JUSTICE *1-4 credits*
(May be repeated for a total of six credits). Prerequisite: permission. Workshops and special programs in selected areas of criminal justice such as community relations, crime statistics, ethics, survival.

292 SPECIAL TOPICS: CRIMINAL JUSTICE *1-4 credits*
(May be repeated for a total of six credits). Prerequisite: permission. Workshops and special programs in selected areas of criminal justice such as community relations, crime statistics, ethics, survival.

293 SPECIAL TOPICS: CRIMINAL JUSTICE *1-4 credits*
(May be repeated for a total of six credits). Prerequisite: permission. Workshops and special programs in selected areas of criminal justice such as community relations, crime statistics, ethics, survival.

294 CRIMINAL JUSTICE INTERNSHIP EVALUATION *1 credit*
Prerequisites: 100. Thirty credits and permission; corequisite: 2220:295. Analysis by student and instructor of internship experience. A sharing of knowledge gained by student during internships.

295 CRIMINAL JUSTICE INTERNSHIP *3 credits*
Prerequisites: 100. Thirty credits and permission. Supervised work experience in criminal justice agency for purpose of increasing student understanding of criminal justice process.

296 CURRENT TOPICS IN CRIMINAL JUSTICE *3 credits*
Prerequisite: 100. A variety of course topics on current subjects relative to law enforcement and the Criminal Justice System.

297 INDEPENDENT STUDY: CRIMINAL JUSTICE *1-3 credits*
Prerequisite: 100 and permission. Selected topics and special areas of study in Criminal Justice Technology under the supervision of a selected faculty member with whom specific arrangements have been made.

298 APPLIED ETHICS IN CRIMINAL JUSTICE *3 credits*
Prerequisite: 100. This course deals with ethical considerations which confront justice practitioners and the legal ramifications of misconduct.

FIRE PROTECTION TECHNOLOGY

2230:

100 INTRODUCTION TO FIRE PROTECTION *3 credits*
History and philosophy of fire protection; introduction to agencies involved; current legislative developments; discussion of current related problems, expanding future of fire protection and career orientation.

102 FIRE SAFETY IN BUILDING DESIGN AND CONSTRUCTION *3 credits*
Exploration of building construction and design with emphasis on fire protection concerns; review of related statutory and suggested guidelines local, state and national scope.

104 FIRE INVESTIGATION METHODS *4 credits*
History of fire investigation; gathering of evidence and development of technical reports; fundamentals of arson investigation; processing of criminal evidence and procedures related to local and state statutes.

153 PRINCIPLES OF FIRE PROTECTION AND LIFE SAFETY *3 credits*
Recognition of specialized fire hazards. Maintenance and utilization of portable and automatic fire extinguishing devices. Fire prevention methods, code compliance. Organizing fire safety training programs.

202 FIRE SUPPRESSION AND EMERGENCY RESPONSE METHODS *4 credits*
Efficient and effective utilization of human resources, equipment and apparatus. Emphasis on preplanning, fireground organization problem solving related to fireground decision making and attack tactics and strategy.

204 FIRE HAZARDS RECOGNITION *3 credits*
Inspection techniques and procedures; setting up a fire prevention bureau. Recognition and correction of fire hazards. Public relations and code enforcement.

205 FIRE DETECTION AND SUPPRESSION SYSTEMS I *3 credits*
Design, installation, maintenance and utilization of portable fire extinguishing appliances and pre-engineered automatic systems; fire detection and alarm signaling systems operational capabilities, requirements.

206 FIRE DETECTION AND SUPPRESSION SYSTEMS II *3 credits*
Prerequisite: 205. Design, installation and operation of automatic fire suppression systems. Includes sprinkler, foam, carbon dioxide, dry chemical, halogenated agent systems.

250 HAZARDOUS MATERIALS *4 credits*
Prerequisite: 100. Study of chemical characteristics and reactions related to storage, transportation and handling of hazardous materials. Emphasis on emergency situations, fire fighting and control.

254 FIRE CODES AND STANDARDS *3 credits*
Prerequisite: 104. Study of legal rights and duties, liabilities and responsibilities of fire department organizations.

257 FIRE PROTECTION FOR BUSINESS AND INDUSTRY *3 credits*
Industrial fire protection problems including specialized hazards, automatic extinguishing systems, codes and standards, fire safety planning, fire brigade organizations.

280 FIRE SERVICE ADMINISTRATION *4 credits*
Prerequisites: 100. Fire officer professional qualifications; federal, state regulations governing department operations–OSHA, EPA; emergency and non-emergency operations procedures–ICS, IMS, Emergency Operations Center are presented.

290 SPECIAL TOPICS: FIRE PROTECTION TECHNOLOGY *1-2 credits*
(May be repeated for a total of four credits) Prerequisite: permission. Selected topics or subject areas of interest in fire protection technology.

295 FIRE PROTECTION INTERNSHIP *4 credits*
Prerequisites: 30 credits in program and permission of program coordinator. Supervised work experience in fire protection to increase student understanding of fire technology; analysis by student and instructor of internship experience; sharing of knowledge gained during internship.

297 INDEPENDENT STUDY: FIRE PROTECTION *1-3 credits*
Prerequisite: 2230:100 and permission. Selected topics and special areas of study in fire protection technology under the supervision and evaluation of a selected faculty who assigns specific arrangements.

COMMUNITY SERVICES TECHNOLOGY

2260:

100 INTRODUCTION TO COMMUNITY SERVICES *3 credits*
Introductory course to familiarize student with role of community services technician in service delivery. Use, history and rationale for paraprofessionals, programs, volunteer experiences, self-awareness, and interaction in community services. Students are required to do 105 hours of volunteer work.

121 SOCIAL SERVICE TECHNIQUES I *3 credits*
Prerequisite: 171. Preparation to provide helping interventions as Social Work Assistants. Focuses on helping relationships, helping and problem-solving processes, social work values, attending skills and interview techniques.

122 SOCIAL SERVICE TECHNIQUES II *3 credits*
Corequisite: 121. Focus on enhancing self-awareness. Provides basic knowledge about social group work and opportunities for students to practice beginning group work techniques by co-facilitating group discussions and experiential activities.

150 INTRODUCTION TO GERONTOLOGICAL SERVICES *3 credits*
Basic orientation to gerontology and role of community service technician in service delivery to aged. Topics include social, biological, economical, and psychological aspects of aging; national and state legislation; services and service provider.

172 CAREER ISSUES IN SOCIAL SERVICES I *1 credit*
Corequisite: 7750:276. Orients students to human service education and introduces them to the knowledge, skills and attitudes essential for future educational and career success.

172 CAREER ISSUES IN SOCIAL SERVICES II *1 credit*
Prerequisite: 171. Addresses attitudes and behavior necessary to succeed in field work and on the job. Topics include appropriate professional behavior, using supervision effectively and workplace competencies.

210 CHEMICAL DEPENDENCY AND PREVENTION I *4 credits*
In-depth understanding of prevention/education programming, with emphasis on: targeting high-risk individuals; program models; program effectiveness; and community/school needs, expectations, capabilities and limitations.

211 CHEMICAL DEPENDENCY AND PREVENTION II *4 credits*
Development of skills in prevention/education program development for schools, communities and agencies; experiential emphasis on developing personal effectiveness as a prevention/education provider.

212 TECHNICAL EXPERIENCE IN CHEMICAL DEPENDENCY EDUCATION AND PREVENTION *5 credits*
Placement in community and social service agencies for supervised experience with concepts and skills from academic studies. Students required to complete 200 hours of field experience.

213 PREVENTION/EDUCATION INTERNSHIP *4 credits*
Integrates advanced prevention service provider experience with concepts and skills from academic studies. Students required to complete 200 hours of field experience.

223 SOCIAL SERVICES TECHNIQUES III *3 credits*
Prerequisite: 122. Corequisites: 172 or 173. Provides knowledge base for working with individuals in crisis. Students apply crisis theory to developmental and situational crises and practice crisis intervention techniques.

230 COMMUNITY-BASED RESIDENTIAL SERVICES *3 credits*
Orientation to community-based residential services and role of community services technician in delivery of services to mentally disabled. Includes historical, social and legal forces in community-based services and practical aspects of operation of a residential facility.

240 CHEMICAL DEPENDENCY I *3 credits*
Basic introduction to drug use and abuse. Includes pharmacology, basic helping and crisis intervention skills, motivations, theories of treatment, and exploration of some typical drug crisis situations.

241 CHEMICAL DEPENDENCY II *3 credits*
Prerequisite: 240 or permission. Continued in-depth exploration of drug usage patterns, causes of chemical abuse and treatment modalities. Skills to develop alternatives to drug abuse are studied and rehearsed.

260 ALCOHOL USE AND ABUSE *3 credits*
Survey of use and abuse of alcohol in our society with particular emphasis on replacing common stereotypes, myths and attitudes with improved understanding.

261 ALCOHOLISM TREATMENT *3 credits*
Prerequisite: 260. Survey of theory and practices in treatment of alcohol problems. Special emphasis on applicability and effectiveness of various resources and approaches.

262 BASIC HELPING SKILLS IN ALCOHOL PROBLEMS *4 credits*
Prerequisite: 278. Introduces the student to basic concepts of helping skills; provides opportunity to help; develops ability to give and receive feedback about relevancy and effectiveness of behavior; develops responsibility for their own learning as related to working with alcohol problems.

263 GROUP PRINCIPLES IN ALCOHOLISM *4 credits*
Prerequisite: 260 or permission. Introduces student to group dynamics; provides opportunity to examine their role as group members; and explores unique factors in alcoholism that influence group treatment. Practical group dynamics sessions.

264 CHILDREN OF ALCOHOLICS *3 credits*
A didactic and experiential in-depth study of the characteristics, behaviors, problems, and programs of recovery of children and adults who have lived in an alcoholic home.

265 WOMEN AND CHEMICAL DEPENDENCY *3 credits*
Exploration of social, psychological, physical, and family consequences as contributing factors in the misuse of alcohol and drugs by women.

266 SOCIAL SERVICE TECHNIQUES WITH CHILDREN AND FAMILIES *3 credits*
Prerequisite: 122. Preparation for working with children individually and in their families. Content includes child development in relation to environmental factors, social policy concerns and helping interventions.

273 CAREER ISSUES IN SOCIAL SERVICES III *1 credit*
Prerequisite: 122 and 171. Explores strategies to promote optimal effectiveness in human service careers. Topics include self-care, preventing burnout, ethical dilemmas, human diversity and the professional use of self.

275 THERAPEUTIC ACTIVITIES *3 credits*
Prerequisite: 150. Preparation for planning, adapting and implementing individual and group therapeutic activities to meet diverse psychological needs. Emphasizes program planning, motivational techniques and group work skills.

276 PRACTICUM IN THERAPEUTIC ACTIVITIES *1 credit*
Prerequisite: 150. Corequisite: 275. Supervised 90-hour experience in long-term care facility observing, planning and providing therapeutic activities. Students practice program planning, documentation and group work skills.

277 CASE MANAGEMENT IN COMMUNITY SERVICES *3 credits*
Case by case study of Social Service delivery in six primary areas of Human Services. Emphasis on case management skills, documentation and ethics.

278 TECHNIQUES OF COMMUNITY WORK *4 credits*
Prerequisites: 100 and 2020:121. For those intending to work in community organizations in the United States and for others desiring an understanding of technical community service roles. Covers such topics as ethics, liability issues, communication and problem solving skills, values clarification, stress management systems theory, and assertive behavior.

279 TECHNICAL EXPERIENCE IN COMMUNITY AND SOCIAL SERVICES *5 credits*
Prerequisite: 278 and permission. Individual placement in selected community and social service agencies for educationally supervised experience in community and social services technician position. Does not substitute for 7750:421 or 495.

285 SOCIAL SERVICES PRACTICUM I *1-4 credits*
Prerequisites: 122, 172 and 273. Supervised field placement in a human service organization. Students apply classroom learning to actual helping situation, test career interests and gain practical, on-the-job experience.

286 COUNSELOR ASSISTANT INTERNSHIP *4 credits*
Prerequisites: 279 and permission of instructor. Integrates counselor assistant experience with fundamental concepts and skills from academic studies. Students required to complete 200 hours of supervised field experience.

287 SOCIAL SERVICES PRACTICUM II *1-4 credits*
Prerequisites: 172, 273, 285 and permission. Second supervised field placement in a human service organization. Students apply classroom learning to actual helping situation, test career interests and gain practical, on-the-job experience.

288 TECHNIQUES OF COMMUNITY WORK II *4 credits*

290 SPECIAL TOPICS: COMMUNITY SERVICES TECHNOLOGY *1-3 credits*
Prerequisite: permission. Selected topics or subject areas of interest in community services technology.

294 SOCIAL SERVICES PRACTICUM SEMINAR *1-2 credits*
Taken concurrently with Social Services Practicum I and II to discuss practicum experiences confidentially, integrate classroom learning with practical field work situations, and support learning.ß

297 INDEPENDENT STUDY *1-3 credits*
Prerequisite: permission. Selected topics and special areas of study under the supervision and evaluation of a selected faculty member with whom specific arrangements have been made.

HOSPITALITY MANAGEMENT 2280:

101 INTRODUCTION TO HOSPITALITY *3 credits*
Explores the various segments of the hospitality industry and introduces the knowledge and skills required for success.

120 SAFETY AND SANITATION *3 credits*
Introduction to food service sanitation, safety practices pertinent to hospitality manager. Emphasis on sanitation laws, rules, food microbiology, safe food handling, storage practices, accident prevention.

121 FUNDAMENTALS OF FOOD PREPARATION I *4 credits*
Skills and basic knowledge of food preparation procedures in a laboratory situation.

122 FUNDAMENTALS OF FOOD PREPARATION II *4 credits*
Prerequisites: 120 and 121. Continuation of 121. Food preparation techniques presented in laboratory situations for public consumption in a restaurant setting.

160 WINE AND BEVERAGE SERVICE *3 credits*
Intensive examination of wine as related to hospitality industry. Emphasis on business practices. History and development of viticulture, enology.

230 ADVANCED FOOD PREPARATION *4 credits*
Prerequisites: 101 and 122. Lecture and demonstration followed by hands-on experience in the preparation of classical American dishes as well as cuisines and techniques from around the world.

232 DINING ROOM SERVICE AND TRAINING *2 credits*
In-depth study of the styles of dining service, development of job descriptions, importance of courtesy, customer relations.

233 RESTAURANT OPERATIONS AND MANAGEMENT *4 credits*
Prerequisite: 122, and 232 for restaurant management option. Additional prerequisite: 261 for culinary arts majors. Introduction to large quantity food service procedures with emphasis on sound principles of food handling service and sanitation in large quantity operations. Gourmet meals served in simulated restaurant atmosphere.

237 INTERNSHIP *1 credit*
Prerequisite: permission. On/off campus observation/work experience integrated with academic instruction. Concepts applied to practical situations. May be repeated for a total of two credits.

240 SYSTEMS MANAGEMENT AND PERSONNEL *3 credits*
Identifies systems utilized in successful food service operations. General principles of each system, its interrelationships with total food service organization explored.

243 FOOD EQUIPMENT AND PLANT OPERATIONS *3 credits*
Prerequisite: 120. Available food service equipment, its selection, use and care. Field trips taken to wholesale outlets and food service establishments to see food service equipment demonstrated and in operation.

245 MENU, PURCHASING AND COST CONTROL *4 credits*
Prerequisites: 101 and 2420:170. Menu design and merchandising integrated with purchasing principles, specifications and receiving, as well as financial controls and procedures within the hospitality environment.

256 HOSPITALITY LAW *3 credits*
Introduction to hotel, restaurant, travel law. Fundamental constitutional, statutory, administrative rules, regulations applicable to hospitality industry. Case study, problem-solving approaches applied to legal problems confronting hospitality executives.

261 BAKING AND CLASSICAL DESSERTS *4 credits*
Prerequisite: 122. Techniques and production of quick breads, yeast products, cakes, cookies, specialty desserts and pies. Emphasis on equipment, formulas, ingredient selection and product quality evaluation.

268 REVENUE CENTERS *4 credits*
Prerequisite: 101. Techniques and production of quick breads, yeast products, cakes, cookies, specialty desserts and pies. Emphasis on equipment, formulas, ingredient selection and product quality evaluation..

278 HOTEL CATERING AND MARKETING *3 credits*
Prerequisite: 101. Hotel sales office operation/supervision are presented. Marketing and promotion of the property, planning, internal/external selling, the sales contract and execution of functions.

290 SPECIAL TOPICS: HOSPITALITY MANAGEMENT *1-3 credits*
(May be repeated for a total of four credits) Prerequisite: permission. Selected topics or subject areas of interest in food service management.

299 WORKSHOP *1-5 credits*
Workshops offered to meet community training needs.

LEGAL ASSISTING TECHNOLOGY 2290:

101 INTRODUCTION TO LEGAL ASSISTING *3 credits*
Covers the basics of legal assisting emphasizing the fundamental concepts of the legal system. Includes overview of legal assistant career and ethical considerations relative thereto.

104 BASIC LEGAL RESEARCH AND WRITING *3 credits*
Prerequisite: 101. Will provide the student with basic research abilities necessary in law offices. Includes the use of law library tools (reporter systems, legal encyclopedias, codes, and computer).

106 BUSINESS ASSOCIATIONS *3 credits*
Prerequisite: 101. Instructs students in different types of business entities, from sole proprietorships to corporations. Preparation of forms and necessary governmental filings will be stressed.

108 REAL ESTATE TRANSACTIONS *3 credits*
Prerequisite: 101. Acquaints students with basic real property law, including different types of deeds, ownerships, easements, and mortgages. Problems arising from sales agreements will be covered.

110 TORT LAW *3 credits*
Prerequisite: 101. Covers the traditional civil wrongs, from the plaintiff's and defendant's standpoints. Actual cases will be briefed and discussed. Stresses importance of preparation prior to trial.

112 FAMILY LAW *3 credits*
Prerequisite: 101. Covers divorce and dissolution of marriage including child support, custody, alimony, etc. Client interviewing is stressed. Juvenile court procedures are covered, including neglect and abuse.

118 PROBATE ADMINISTRATION *4 credits*
Prerequisite: 101. Covers law necessary to draft and interpret wills, trusts. Includes administration of a typical estate within Probate Court. Touches on guardianship, commitment of mentally ill.

204 ADVANCED LEGAL RESEARCH *3 credits*
Prerequisite: 101; 104. Continuation of 104. Will especially stress importance of clear, concise legal writing. Students will write briefs, motions, and complaints as part of their endeavor.

214 CIVIL PROCEDURE *3 credits*
Prerequisite: 101. Covers aspects of legal assisting in different types of civil litigation. Includes Ohio Rules of Civil Procedure, preparation of complaints, answers, motions, basic trial preparation.

216 DEBTOR-CREDITOR RELATIONS *3 credits*
Prerequisite: 101. Course covers bankruptcy, collection methods, consumer law, and credit. Course stresses law and procedures and the numerous forms that are part of this practice.

218 ADVANCED PROBATE ADMINISTRATION *3 credits*
Prerequisite: 101; 118. This is a continuation of 118 but will cover the more complicated trusts and estates and will stress both state and federal tax filings.

220 LEGAL ASSISTING INTERNSHIP *4 credits*
Prerequisite: 101; Student must have completed all first-year courses. Gives students experience in law or law-related office. Students work 14 hours per week in their placement and meet regularly with the Internship Coordinator.

290 SPECIAL TOPICS: LEGAL ASSISTING TECHNOLOGY *1-3 credits*
Prerequisites: 101, 104 or permission. (May be repeated for a maximum of six credits.) Selected topics on subject areas of interest in Legal Assisting Technology.

297 INDEPENDENT STUDY: LEGAL ASSISTING *3-5 credits*
Prerequisite: 101. (May be repeated for a maximum of six credits.) Selected topics and special areas of study in Legal Assisting Technology.

BUSINESS MANAGEMENT TECHNOLOGY

2420:

101 ESSENTIALS OF MARKETING TECHNOLOGY *3 credits*
Study of basic principles and methods in distribution. Presentation of marketing process as it relates to consumer and industrial products. Emphasis on pricing, product, promotion, as well as distribution.

103 ESSENTIALS OF MANAGEMENT TECHNOLOGY *3 credits*
Prerequisites: 170 and 2040: 240 and 2040:247; or permission. Presentation of basic management techniques; motivation, planning, organizing, leading and controlling. Elements of group behavior, communication and employee compensation.

104 INTRODUCTION TO BUSINESS *3 credits*
Survey course of business in its entirety including production, distribution, finance, control and personnel functions. Emphasis on descriptive materials, technical vocabulary and career opportunities and responsibilities in various business fields.

111 PUBLIC RELATIONS *2 credits*
Study of philosophy, techniques and ethics of the management function known as public relations. Defines variety of publics and methods of communication.

113 INTRODUCTION TO BANKING *2 credits*
Covers fundamentals of banking in operational perspective. Emphasis on bank functions, types of accounts, relationship to depositors, loans, investments trust, safe deposit operations, internal and external control, public service obligations.

117 SMALL BUSINESS DEVELOPMENT *3 credits*
Prerequisite: 104. Fundamentals of small business operations, emphasis on small business marketing.

118 SMALL BUSINESS MANAGEMENT AND OPERATIONS *3 credits*
Prerequisite: 117. Designed to provide greater insight into the management and financial aspects of small business operations. Emphasis on small business management.

123 FEDERAL REGULATION OF BANKING *2 credits*
Corequisite: 113. Study of agencies regulating banks, bank charters, bank reports and examinations, federal limitations on banking operations and regulation of bank expansion. Supervision of employees to conform with regulation.

125 PERSONAL FINANCIAL COUNSELING *3 credits*
Family resource management; consumer decision making including consumer credit and family budget decisions, retirement planning, types of insurance, annuities and savings, consumer education, types and techniques of counseling.

170 BUSINESS MATHEMATICS *3 credits*
Review of fundamentals of mathematics applicable to business, trade prices, retail pricing, interest and discounts, compound interest and annuities, consumer credit, payroll, income taxes, depreciation methods, financial statements and elementary statistics.

202 PERSONNEL PRACTICES *3 credits*
Prerequisite: 103 or permission. Provides information necessary to develop policies and programs that attract, retain and motivate employees. Includes staffing, human resources development, compensation plans, labor and management relations, appraisal systems and career planning.

211 BASIC ACCOUNTING I *3 credits*
Accounting for sole proprietorships and partnerships. Service and merchandising concerns. Journals, ledgers, work sheets, and financial statements. Includes handling of cash, accounts receivable, notes, inventories, plant and equipment, and payroll.

212 BASIC ACCOUNTING II *3 credits*
Prerequisite: 211. Study of accounting principles as applied to corporate form of business, and of manufacturing accounting for job order and process costing, budgeting and standard costs.

213 BASIC ACCOUNTING III *3 credits*
Prerequisite: 212. Study of information needs of management. Emphasis on the interpretation and use of accounting data by management in planning and controlling business activities.

214 ESSENTIALS OF INTERMEDIATE ACCOUNTING *3 credits*
Prerequisite: 212. Study of development of financial accounting theory and its application to problems of financial statement generation, account valuation, analysis of working capital, and determination of net income.

216 SURVEY OF COST ACCOUNTING *3 credits*
Prerequisite: 213. Provides student with conceptual understanding of how accounting information is developed and used for product costing, decision making and managerial planning and control.

217 SURVEY OF TAXATION *4 credits*
Prerequisite: 212. Survey course of basic tax concepts, preparation of returns, supporting schedules and forms for individuals and businesses. Federal, state and local taxes are discussed. The major emphasis of this course is on business taxes.

227 ENTREPRENEURSHIP PROJECTS *4 credits*
Prerequisite: 118. An overview of small business management. A project course during which students create a hypothetical business.

233 INSTALLMENT CREDIT *2 credits*
Prerequisite: 113. Pragmatic course emphasizing evaluation, maintenance of consumer, commercial credit. Covers evaluation, legal aspects, collection, direct and indirect installment lending, leasing and other special situations, credit department management.

243 SURVEY IN FINANCE *3 credits*
Prerequisites: 170 and 211 and 2040:247 or permission. Survey of field including instruments, procedures, practices and institutions. Emphasis on basic principles.

253 ELEMENTS OF BANK MANAGEMENT *2 credits*
Prerequisite: 113. Applied course in bank operation and management. Bank case studies utilized to focus on objectives, planning, structure, control, and interrelationship of bank functions and departments.

273 MONETARY SYSTEMS AND THE PAYMENTS MECHANISM *3 credits*
Prerequisite: 280. Structure of banking system, Federal Reserve System policies and operations, Article IV of the 4CC, paperless electronic payments mechanism, bank responsibilities in deposit, collection, dishonor and return, payment of checks.

280 ESSENTIALS OF BUSINESS LAW *3 credits*
Brief history of law and judicial system, study of contracts with emphasis on sales, agency, commercial paper and bailments.

290 SPECIAL TOPICS: BUSINESS MANAGEMENT TECHNOLOGY *1-3 credits*
(May be repeated for a total of four credits) Prerequisite: permission. Selected topics or subject areas of interest in business management technology.

REAL ESTATE

2430:

105 REAL ESTATE PRINCIPLES *2 credits*
Introduction to real estate as a profession, process, product and measurement of its productivity. The student is responsible for reading and discussions relative to real estate and the American system.

185 REAL ESTATE LAW *2 credits*
Prerequisite: 105. Contents of contemporary real estate law. The student is responsible for readings covering units on estates, property rights, license laws, contracts, deeds, mortgages, civil rights, and zoning.

245 REAL ESTATE FINANCE *2 credits*
Prerequisites: 105, 185. Study of contents of contemporary real estate finance. Units on reading and discussion include mortgage instruments, financial institutions, mortgage market, govern mental influence on finance, and risk analysis and mortgage lending.

255 VALUATION OF RESIDENTIAL PROPERTY *2 credits*
Prerequisites: 105, 185. Methods used to estimate value in residential property including cost of reproduction, market data and income approach. Student prepares an appraisal on a residential property.

265 REAL ESTATE BROKERAGE *2 credits*
Prerequisites: 105, 185. Application of management functions of planning, organizing, directing, controlling and staffing to real estate brokerage office. Student activities include reading, discussion and research.

275 SPECIAL PROJECT IN REAL ESTATE *2 credits*
Prerequisites: 105, 185, 245, 255, and 265. Student demonstrates knowledge of real estate by preparing a written report covering brokerage process as it relates to a parcel of property.

290 SPECIAL TOPICS: REAL ESTATE *1-3 credits*
Prerequisite: permission. Selected topics or subject areas of interest in real estate.

COMPUTER INFORMATION SYSTEMS

2440:

101 FUNDAMENTAL COMPUTER CONCEPTS *1 credit*
Bridge course designed to provide a general introduction to and general overview of fundamental computer concepts that will be necessary for subsequent computer-oriented courses.

102 INTRODUCTION TO WINDOWS *1 credit*
Bridge course includes instruction in Microsoft Windows operating system, as well as subdirectories, data transfer, and file management.

103 SOFTWARE FUNDAMENTALS *2 credits*
Bridge course is an introduction to various microcomputer software packages. Hands-on work provides the skills and knowledge to create word processing documents, spreadsheets and databases.

121 INTRODUCTION OF LOGIC/PROGRAMMING *3 credits*
Prerequisite: Must pass department placement test, admitted to program, or permission from program director. An introduction to business problem solving using computer-based solutions. Topics include structured design, documentation and modularity. Includes a component of hands-on programming.

125 SPREADSHEET SOFTWARE *2 credits*
Emphasizes mastery of spreadsheet applications using Excel.

140 INTERNET TOOLS *3 credits*
Prerequisite: Must pass departmental placement test, complete bridge courses or permission from program director. This course concentrates on using the Internet as a tool in business. Topics include electronic mail and browsing with an emphasis on internet document publishing.

145 OPERATING SYSTEMS *3 credits*
Prerequisite: Must pass departmental placement test, complete bridge courses or permission from program director. Course explores vital functions that an operating system performs. Single user and multi-user operating systems are studies from a functional and hands-on approach.

160 JAVA PROGRAMMING *3 credits*
Prerequisite: 140. Corequisite: 170. Course introduces the JAVA programming language. Programming techniques are demonstrated through the coding, testing and debugging of JAVA applications and applets.

170 VISUAL BASIC *3 credits*
Prerequisites: 121. Course includes hands-on experience with Visual BASIC, design of Graphical User Interface (GUI) applications, event-driven programming, linking of windows, and accessing relational databases.

175 MICROCOMPUTER APPLICATION SUPPORT *3 credits*
Prerequisites: 101, 102, 103 and 2540:140 or permission from program director. This course is an continuation of Software Fundamentals. In-depth use of word processing and spreadsheet software packages.

180 DATABASE CONCEPTS *3 credits*
Prerequisites: 121 and 145 . Overview of models and functions of Database Management Systems. Data definition and data manipulation in the relational model using SQL. Introduction to database design.

210 CLIENT/SERVER PROGRAMMING *3 credits*
Prerequisites: 170 and 180. Introduces student to client/server programming. Includes hands-on experience using a Rapid Application Development (RAD) tool to show integration of database and program development.

234 ADVANCED BUSINESS PROGRAMMING *3 credits*
Prerequisite: 210. Course emphasizes programming and documentation skills to solve business problems, Topics include business application programming, file handling, and advanced data manipulation.

235 CURRENT PROGRAMMING TOPICS *2 credits*
Prerequisite: 170 and 180. Emphasizes new developments related to programming.

241 SYSTEMS ANALYSIS AND DESIGN *3 credits*
Prerequisite: 170 and 180. Covers all phases of business systems analysis, design, development, and implementation. Such principles as system flowcharting and file and document design emphasized.

245 INTRODUCTION TO DATABASES FOR MICROS *3 credits*
Prerequisite: 120. Explains fundamental data base concepts and provides hands-on experience using database software.

247 HARDWARE SUPPORT *3 credits*
Prerequisites: Admission to program or permission of program director. This course introduces the student to the basic skills required to troubleshoot, maintain and repair computers.

251 COMPUTER APPLICATIONS PROJECTS *3 credits*
Prerequisites: 210, 241and 256. Using a simulated work environment, project teams are set up and required to analyze an unstructured problem, prepare alternative designs and implement a solution.

256 C++ PROGRAMMING *3 credits*
Prerequisite: 160. This course explores object-oriented programming through C++ program development.

257 MICROCOMPUTER PROJECTS *3 credits*
Prerequisite: 175 and 267. Course is designed to be the capstone course for the Microcomputer Specialist Option and will include integration of desktop applications resulting in a comprehensive project.

267 MICRO DATABASE APPLICATIONS *3 credits*
Prerequisite: 170 and 180. Students receive hands-on experience using a database applications package. Topics include database creation, organization, updates, queries and generation of reports.

268 NETWORK CONCEPTS *2 credits*
Prerequisite: Admission to program or permission from program director. An introduction to network concepts and terminology of network computing. Data communications, network components, the OSI reference model, and popular industry communication protocols are explored.

270 NETWORK ADMINISTRATION *3 credits*
Prerequisites: 120, PC DOS proficiency or permission from program director. Corequisite: 272. Learn the basics of managing a Novell Networking Operating System. Emphasis on administrative tools to improve information access, system performance and data security.

272 NETWORK TECHNOLOGIES *2 credits*
This course provides the background information needed for network administration.

273 NETWORK PRINTING *2 credits*
Prerequisites: 270 and 276. Learn how to manage a network printing environment from hands-on experience configuring workstations, customizing print jobs, and managing print queues, and remote printers.

274 NETWORK SERVICE AND SUPPORT *3 credits*
Prerequisite: 276. This course focuses on the prevention, diagnosis and resolution of hardware-related Novell networking problems.

275 TCP/IP FUNDAMENTALS *2 credits*
Prerequisite: 270 and 276. Learn how to install and configure TCP/IP software on a network; how to use Telnet and FTP; and how to troubleshoot common problems.

276 NETWORK ADVANCED ADMINISTRATION *2 credits*
Prerequisites: 270. This course emphasizes advanced administration skills such as overseeing complex Novell networking environments, partitioning and replication, and time synchronization.

278 NETWORK DIRECTORY DESIGN AND IMPLEMENTATION *2 credits*
Prerequisite: 270 and 276. Learn how to design and create a network implementation plan for a case-study company using proscribed templates and strategies.

279 NETWORK BUILDING INTRANETS WITH INTRANET WARE *1 credit*
Prerequisite: 276. This Novell networking course teaches skills needed to implement Web service components of Intranet Ware, converting existing network to an intranet.

280 NETWORK INSTALLATION AND CONFIGURATION *1 credit*
Prerequisite: 276. This Novell networking course allows students to receive additional hands-on experience installing and configuring a network.

290 SPECIAL TOPICS: DATA PROCESSING *1-3 credits*
Prerequisite: permission. Seminar in topics of current interest in data processing or special individual student projects in data processing.

299 WORKSHOP *1-5 credits*
Workshops offered to meet community training needs.

MARKETING AND SALES TECHNOLOGY

2520:

103 PRINCIPLES OF ADVERTISING *3 credits*
Prerequisite: 2420: 101. Review of basic principles and functions of current advertising practice. Includes overview of related distributive institutions, media types and economic functions of advertising.

106 VISUAL PROMOTION *3 credits*
Studio course in retail display and promotion techniques. Window, interior and point of purchase categories; principles of design as applied to commercial art; function in visual design, elements of design, color theory, lettering, printing process, layout to camera-ready art.

201 PRINCIPLES OF WHOLESALING *3 credits*
Examination of wholesaler and wholesaling function. Attention given to buying process and relationship of ultimate consumer to wholesaler.

202 RETAILING FUNDAMENTALS *3 credits*
Presents basic principles and practices of retailing operations, including site selection, buying, pricing and promotion practices. Use is made of extensive projects and investigations and actual retail operations.

203 FUNDAMENTALS OF INDUSTRIAL DISTRIBUTION *3 credits*
Prerequisite: 2420:101. An introductory examination of the industrial distribution network and pertinent middlemen involved. Includes wholesalers, service institutions and other channel members.

207 TECHNIQUES OF MERCHANDISING RESEARCH *2 credits*
Prerequisite: 2420:101. Introduction to merchandising research. Uses of research for merchandisers, concepts in planning research. Approaches to research in a non-mathematical approach to analysis. Case histories of small merchandisers.

210 CONSUMER SERVICE FUNDAMENTALS *2 credits*
Prerequisite: 2420:101. Discussion of problems facing business today created by social issues in society. Emphasis on understanding viewpoints of all groups involved.

211 MATHEMATICS OF RETAIL DISTRIBUTION *3 credits*
Prerequisite: 2420:170. Basic course dealing with merchandising mathematics. Includes understanding markup types, retail method of inventory (sales and stock planning), and open-to-buy computations.

212 PRINCIPLES OF SALES *3 credits*
Study of basic principles of selling, emphasizing individual demonstrations and sales projects. Includes review of sales function as integral part of marketing process.

215 ADVERTISING PROJECTS *2 credits*
Prerequisites: 103, 106. A workshop for students interested in developing their advertising and creative promotional skills. Projects would include "real world" situations facing prospective users of advertising.

217 MERCHANDISING PROJECTS *2 credits*
Prerequisites: 2420:101; 202*. Students would be charged with "creating" a retail operation including the establishment and defense of planning, site selection, merchandise and pricing, and promotion strategies.

219 SALES PROJECTS *2 credits*
Prerequisite: 212*. Allows students to sharpen skills necessary to make an effective sales presentation. Extensive use of video-tape analysis. Team as well as individual sales presentations.

221, 222 AAF ADVERTISING CAMPAIGN I, II *2 credits each*
Prerequisite: permission. These sequential courses have one function: to have students prepare an entry for the annual American Advertising Federation's Collegiate Advertising Competition.

234 HUMOR IN ADVERTISING *2 credits*
Course looks at humor in our society and how and why it has been used by advertising practitioners; uses individual and group projects.

290 SPECIAL TOPICS: MARKETING AND SALES *1-3 credits*
(May be repeated for a total of four credits) Prerequisite: permission. Selected topics or subject areas of interest in sales and merchandising.

OFFICE ADMINISTRATION

2540:

119 BUSINESS ENGLISH *3 credits*
Fundamentals of English language with emphasis on grammatical correctness, acceptable usage, spelling and punctuation. Limited writing primarily involves choice of precise words and effective sentence structure with some attention to paragraph development.

120 KEYBOARDING SKILL DEVELOPMENT *1 credit*
Prerequisite: Previous keyboard training and keyboard familiarity. For students who want to increase keyboarding speed and/or accuracy. Individual goals are set after diagnostic timings. Drill assignments based on individual proficiency. (May be repeated for a maximum of 2 credits.)

121 INTRODUCTION TO OFFICE PROCEDURES *3 credits*
Introduction to concepts regarding role of office worker, human relations, communications, productivity, reference materials, technological advances in processing information and employment opportunities.

129 INFORMATION/RECORDS MANAGEMENT *3 credits*
Overview of records used in business. Includes filing procedures, equipment, supplies, classification systems, alphabetic rules, electronic database systems, and management and control of records systems.

* May be taken concurrently.

131 COMPUTERIZED DOCUMENT CONTROL *4 credits*
Prerequisite: 130. A study of the planning and controlling of documents from the time of their creation until their final disposition with emphasis on automated storage and retrieval systems.

140 KEYBOARDING FOR NON-MAJORS *2 credits*
Beginning keyboarding for the non-secretarial student. Fundamentals in the operation of the keyboard; application emphasis on individual student needs such as resumes, application letters and forms, term reports, abstracting, etc. Credit not applicable toward associate degree in Office Administration.

141 WORD PERFECT, BEGINNING *2 credits*
Prerequisite: Basic touch typing skills. Introduction to WORD PERFECT word processing software for non-majors. Training on personal computers for personal and business communications.

142 WORD PERFECT, ADVANCED *2 credits*
Prerequisite: 141 or permission.Intermediate and advanced skills of WORD PERFECT to include tables, importation of spreadsheets, outlines, advanced file management, macros, merges, labels and graphics.

143 MICROSOFT WORD, BEGINNING *2 credits*
Prerequisite: Basic touch typing skills. Introduction to word processing software for non-Office Administration majors. Training on personal computers for personal and business communications using Microsoft Word software.

144 MICROSOFT WORD, ADVANCED *2 credits*
Prerequisite: 143 or permission. Intermediate and advanced skills of Microsoft Word to include tables, importation of spreadsheets, outlines, advanced file management, macros, merges, labels and graphics.

150 BEGINNING KEYBOARDING *3 credits*
For the beginning student or one who desires a review of fundamentals. Includes basic keyboard, letters, tables and manuscripts. Minimum requirement: 30 wpm with a maximum of 5 errors for 5 minutes.

151 INTERMEDIATE WORD PROCESSING *3 credits*
Prerequisite: Permission. Further development of word processing skill. Advanced letter styles, forms, reports, and shortcuts. Minimum requirement: 40 wpm with a maximum of 5 errors for 5 minutes.

171 SHORTHAND PRINCIPLES *4 credits*
Gregg shorthand theory is taught. Minimum attainments: reading from notes at 100 wpm and taking dictation from new material at 50 wpm for 3 minutes. Credit not allowed if taken after 172. Offered at Wayne Campus only.

172 SHORTHAND REFRESHER AND TRANSCRIPTION *4 credits*
Accelerated review of Gregg shorthand theory. Minimum attainments: reading from notes at 100 wpm and taking dictation from new material at 60 wpm for 3 minutes. Credit allowed if taken after 171. Offered at Wayne Campus only.

173 SHORTHAND AND TRANSCRIPTION *4 credits*
Prerequisite: 171; corequisite or prerequisite: 151. Emphasis on developing skill in taking shorthand dictation and transcribing at typewriter. Minimum speed attainment of 70 wpm for 5 minutes on new material required. Offered at Wayne Campus only.

241 INFORMATION MANAGEMENT *3 credits*
Prerequisite: 150 or equivalent. Study of creation, classification, encoding, transmission, storage, retention, transfer and disposition of information. Emphasis on written, oral and machine language communication media used in business information systems. Offered at Wayne campus only.

243 INTERNSHIP *2-3 credits*
Prerequisites: 119; 121; 129; 130; 253; 270; and 281. Work experience in an office environment related to the student's degree major. Application of office administration skills/knowledge.

247 AUTOMATED OFFICE SYSTEMS *4 credits*
Prerequisite: 131. Examination of automated methods of controlling information. Application of office information management techniques.

248 ADVANCED OFFICE TECHNOLOGIES *3 credits*
Prerequisites: 131; 247. Study and application of advanced automated office systems. Emphasis on the automation of administrative support functions.

253 ADVANCED WORD PROCESSING *3 credits*
Prerequisites: 151. To increase student's ability to produce office documents on computers. Minimum requirement: 50 wpm with maximum of 5 errors for 5 minutes.

255 LEGAL OFFICE PROCEDURES I *3 credits*
Prerequisite: 151. Concentration on ethics, responsibilities, and document production for the career legal secretary.

263 BUSINESS COMMUNICATIONS *3 credits*
Prerequisites: 119 and 2020:121 or permission. Business writing with emphasis on communicating in typical business situations and expressing ideas effectively to achieve specific purposes. Includes business letters, memoranda, application letters, resumes, and a business report.

264 ADVANCED BUSINESS COMMUNICATIONS *3 credits*
Prerequisite: 263 or equivalent. Provides information about and practice in oral and advanced written communications to strengthen skills necessary in today's business world.

265 WOMEN IN MANAGEMENT *3 credits*
Deals with gender-related needs and problems of women in management and supervision.

270 OFFICE SOFTWARE APPLICATIONS *4 credits*
Prerequisite: 253. An advanced course in document production incorporating databases, spreadsheets, and graphics into various types of documents.

271 DESKTOP PUBLISHING *3 credits*
Prerequisites: 253 or permission. Desktop publishing software used to create printed materials such as newsletters, brochures, business forms, and resumes. Course addresses design/layout decision and editing for the office worker.

273 COMPUTER-BASED GRAPHIC PRESENTATION *3 credits*
Prerequisites:7600:105 or 106 and 2440:155. An introduction to the basic principles of preparation, design, and organization necessary to produce exciting and effective computerized graphic presentations. Current graphic software will be taught.

279 LEGAL OFFICE PROCEDURES *4 credits*
Prerequisite: 255. Provides an understanding of various facets of the law, when and how to use documents, important legal procedures and typical office routine.

281 EDITING/PROOFREADING/TRANSCRIPTION *3 credits*
Prerequisites: 119;151; or permission. Editing and proofreading skills emphasized on the transcription of taped dictation, processing of rough-draft manuscripts, and drafting of original documents.

289 CAREER DEVELOPMENT FOR BUSINESS PROFESSIONALS *2 credits*
Fundamentals of job search technique, professional image development and personal and interpersonal dynamics within the business environment.

290 SPECIAL TOPICS: OFFICE ADMINISTRATION *1-3 credits*
(May be repeated for a total of four credits) Prerequisite: permission. Selected topics or subject areas of interest in office administration.

299 WORKSHOP *1-5 credits*
Workshops offered to meet community training needs.

TRANSPORTATION 2560:

110 PRINCIPLES OF TRANSPORTATION *3 credits*
Analysis of role of transportation in nation's economic development. Survey of historical development and economic aspects of rail, highway, water, air, and pipeline.

115 MOTOR TRANSPORTATION *3 credits*
Prerequisite: 110 is to be taken in the first semester of the first year of the program. Study of economic characteristics of commercial motor industry with emphasis on problems, practices, rates, regulations, fares, tariffs, operations, equipment, and financial aspects.

116 AIR TRANSPORTATION *2 credits*
Corequisite: 110. Analysis of economic characteristics of commercial air industry. Study of its problems, practices, regulations, rates, fares, tariffs, and services.

117 WATER TRANSPORTATION *2 credits*
Prerequisite: 110. Theories, practices, regulations of inland and ocean-going water transportation including classification, rates, practices, and tariffs.

118 TRANSPORTATION RATE SYSTEMS *3 credits*
Prerequisite: 110. Analysis of freight rates, tariffs and classifications with particular attention to their application in motor transport field and extensive study through progressive problem solving.

221 TRAFFIC AND DISTRIBUTION MANAGEMENT *3 credits*
Prerequisite: 110. Principles and practices applicable to industrial traffic management and factors affecting transportation decisions. Some items analyzed are operations, services, warehousing, privileges, and documentation.

222 MICROCOMPUTER APPLICATIONS IN TRANSPORTATION *3 credits*
Prerequisite: 110; corequisite: 2440:120. Microcomputer solutions to selected transportation problems. Lease vs. buy analysis, modal selection based on cost, use of transportation algorithms, and computer simulations.

224 TRANSPORTATION REGULATION *3 credits*
Prerequisite: 110. Interstate Commerce Act and related acts including leading cases involving interstate commerce. Regulatory procedures including practice and procedure before federal regulatory agencies.

227 TRANSPORTATION OF HAZARDOUS MATERIALS AND WASTES *2 credits*
Prerequisite: 110. Review of federal regulations covering hazardous material shipments; identification and classification of hazardous materials; marking; labeling; placarding; and documentation.

228 INTRODUCTION TO TRAVEL *2 credits*
Prerequisite: 110. Travel geography, overview of passenger transportation systems, role of travel agent, discussion of trends in travel industry.

229 PASSENGER TICKETING *2 credits*
Prerequisite: 228. Overview of the ticketing process and the use of the Official Airline Guide. Use and preparation of tour orders, ticket exchange notices, refund notices, and internal documents used by travel agent organizations.

230 TOUR PLANNING AND PACKAGING *2 credits*
Prerequisite: 228. Planning and packaging of independent and escorted tours. Cost estimating, time distribution, itinerary preparation and routing. Cruise, hotel, and rental car operations are also examined.

231 COMPUTERIZED RESERVATIONS I *2 credits*
Prerequisite: 228. Corequisite: 229. Hands-on experience in computerized reservation entries and applications. Course is offered off-campus at an area travel agency using a major airline reservations system.

232 COMPUTERIZED RESERVATIONS II *2 credits*
Prerequisite: 231. Continuation of 231. Advanced computerized reservations topics are examined. Off-campus location.

290 SPECIAL TOPICS: TRANSPORTATION *1-3 credits*
(May be repeated for a total of four credits) Prerequisite: permission. Selected topics, subject areas in transportation.

HISTOTECHNOLOGY

2730:

225 HISTOTECHNOLOGY PRACTICUM *5 credits*
Prerequisites: 3100:366 and permission. Instruction and practical experience in a cooperative hospital, research laboratory.

290 SPECIAL TOPICS IN HISTOTECHNOLOGY *1-2 credits*
Prerequisite: permission. Selected topics or subject areas of interest

MEDICAL ASSISTING

2740:

100 INTRODUCTION TO MEDICAL ASSISTING *2 credits*
Medical assistant's role on allied health team, history of medicine, medical practice, medical law and ethics.

120 MEDICAL TERMINOLOGY *3 credits*
Study of language used in medicine.

121 STUDY OF DISEASE PROCESSES FOR MEDICAL ASSISTING *3 credits*
Prerequisite: 120. Study of diseases of major body systems.

135 MEDICAL ASSISTING TECHNIQUES I *4 credits*
Introduction to medical laboratory, theories and procedures essential for a medical assistant's career.

230 BASIC PHARMACOLOGY *3 credits*
Overview of drugs used in a medical setting

235 MEDICAL ASSISTING TECHNIQUES II *4 credits*
Prerequisite: 135. Advanced medical laboratory theories and practices essential for a medical assistant's career.

240 MEDICAL MACHINE TRANSCRIPTION *3 credits*
Prerequisites: 2540:151; 120. Designed to correlate word processing and typing skills necessary for the transcription of a physician's dictation.

241 MEDICAL RECORDS *3 credits*
Prerequisites: 2540:130; 120. Introduction to insurance procedures and codings used in a physician's office.

260 EXTERNSHIP IN MEDICAL ASSISTING *3 credits*
Prerequisites: permission. A period of practical experience held in the office of a qualified physician.

290 SPECIAL TOPICS: MEDICAL ASSISTING *1-2 credits*
Prerequisite: permission. Selected topics or workshops of interest in medical assisting technology.

RADIOLOGIC TECHNOLOGY

2760:

101 INTRODUCTION TO RADIOLOGIC TECHNOLOGY *2 credits*
Prerequisite: admission to the program. Introduction to field of radiology including history of medicine and radiology. Ethical and professional responsibilities of radiologic technologist. Basic protection and basic skills. Orientation to radiology departments of affiliated hospitals. General patient care.

140 MEDICAL AND SURGICAL DISEASES, RADIOLOGY *3 credits*
Prerequisites: 101 and 161. Fundamental principles of disease processes, functional derangements. Background in pathology needed for radiographer will be provided by lecture and demonstrations.

161 PHYSICAL SCIENCE FOR RADIOLOGIC TECHNOLOGY I *2 credits*
Prerequisites: 2030:130 or 2030:151 and permission. Introduction to systems of measurement. Matter, force, motion, work, power, energy, basic electricity, and magnetism.

165,6 RADIOGRAPHIC PRINCIPLES I, II *3 credits, 2 credits*
Sequential. Prerequisite: 161. Elementary principles of ionizing radiation and their application in medical setting. Radiographic accessories and chemical processing of exposed x-ray film.

170 RADIOGRAPHIC POSITIONING I *3 credits*
Corequisite: 101. Introductory course in instructing student in basic positioning nomenclature and radiologic positions. Positioning laboratory experience included.

171 RADIOGRAPHIC POSITIONING II *3 credits*
Prerequisite: 170. Continuation of 170. Includes additional positioning and refinement of positioning strategies. Laboratory.

184 CLINICAL APPLICATION I *4 credits*
Corequisites: 101 and 170. Introduction to clinical procedures including clinical experience in hospital radiology departments. Lectures and laboratory experience correlated and clinical experience closely supervised. Film critique stressed. Observation rotation through nuclear medicine, therapy and diagnostic techniques. Largely student observation.

185 CLINICAL APPLICATION II *4 credits*
Prerequisite: 184. Continuation of 184 with more involvement by student continuing underclose supervision. Special procedures introduced. Student observations and student participation.

230 RADIOGRAPHIC TECHNIQUE AND CONTROL *3 credits*
Prerequisite: 261. Technique and control as related to basic positioning procedures for various parts of body. Relationship among electricity, time, distance, films and contrast on radiograph. A student performs experiments to demonstrate effects of these factors. Energized but nonclinical equipment utilized.

261 PHYSICAL SCIENCE FOR RADIOLOGIC TECHNOLOGY II *3 credits*
Prerequisite: 161. Fundamentals of electricity and radiation physics. Principles of x-ray equipment and other radiation sources used in medical setting.

272 RADIOGRAPHIC POSITIONING III *3 credits*
Prerequisite: 171. Continuation of 171. Includes additional positioning and refinement of positioning strategies. Laboratory.

273 RADIOGRAPHIC POSITIONING IV *3 credits*
Prerequisite: 272. Continuation of 272 utilizing advanced techniques and providing concentration of different age groups in positioning care and special techniques for pediatric and geriatric patients. Laboratory.

286 CLINICAL APPLICATION III *5 credits*
Prerequisite: 185. Summer clinic internship in which student practices all radiographic procedures under supervision. Some independent performance with minimal supervision.

287 CLINICAL APPLICATION IV *4 credits*
Prerequisites: 286 and permission. Clinical performance with supervision. Application at an advanced level. Special techniques, nuclear medicine, therapy, medical surgical pathology, film examination and critique. Maintenance of equipment, department administration, ethical, legal, and professional responsibilities. Clinical experience in hospital radiology departments.

288 CLINICAL APPLICATION V *4 credits*
Prerequisite: 287. Clinical experience and minimally supervised clinical procedures of diagnostic radiography.

289 CLINICAL APPLICATION VI *5 credits*
Prerequisite: 288. Continuation of 288; final internship. Terminal course including review, lecture on correlation and interpretation of radiologic technology. Prepares student for certification examination.

290 SPECIAL TOPICS: RADIOLOGIC SCIENCE *1-3 credits*
(May be repeated with a change in topic) Prerequisite: permission. More advanced study in one or more topics in radiological sciences. Emphasis and topics vary from year to year but will be in areas where a formal course is not otherwise available.

SURGICAL ASSISTING

2770:

100 INTRODUCTION TO SURGICAL ASSISTING TECHNOLOGY *4 credits*
Prerequisite: admission to the program. Study of basic principles which underlie patient care in the operating room. Role of operating room technician and legal and ethical responsibilities defined.

121 SURGICAL ASSISTING PROCEDURES I *2 credits*
Prerequisite: Admission to the program. Corequisite: 100. Didactic and laboratory practice in principles and practices of surgical asepsis, the surgical patient, surgical procedures, care and maintenance of equipment and materials, immediate postoperative responsibilities and emergency situations in operating room.

131 CLINICAL APPLICATION I *2 credits*
Corequisites: 100 and 121. Student assigned to surgical service of affiliated hospitals. Emphasis on aseptic techniques and skills associated with their implementation.

148 SURGICAL ANATOMY I *3 credits*
Corequisite: 3100:206. Emphasis on human anatomy and understanding the body in its three dimensions and the relationships of parts to one another in the various surgical specialties.

222 SURGICAL ASSISTING PROCEDURES II *4 credits*
Prerequisite: 121. Continuation of 121.

232 CLINICAL APPLICATION II *5 credits*
Prerequisite: 131; corequisite: 222. Student assigned to surgical service of affiliated hospitals. Emphasis on "scrubbing" on general surgery and gynecology procedures.

233 CLINICAL APPLICATION III *5 credits*
Prerequisites: 232 and 222. Student assigned to surgical service of affiliated hospitals. Emphasis on "scrubbing" in the specialty areas.

249 SURGICAL ANATOMY II *3 credits*
Prerequisite: 148. Emphasis on human anatomy and understanding the body in its three-dimensions and the relationships of parts to one another in the various surgical specialties.

290 SPECIAL TOPICS: SURGICAL ASSISTING *1-2 credits*
Prerequisite: permission. Selected topics or workshops of interest in surgical assisting technology.

ALLIED HEALTH

2780:

106, 107 ANATOMY AND PHYSIOLOGY FOR ALLIED HEALTH I, II *3 credits each*
Prerequisite: permission. Introduction to the study of human structure and function. No laboratory.

290 SPECIAL TOPICS: ALLIED HEALTH *1-2 credits*
(May be repeated for a total of four credits) Prerequisite: permission. Selected topics or subject areas of interest in allied health.

RESPIRATORY CARE

2790:

121 INTRODUCTION TO RESPIRATORY CARE *3 credits*
Prerequisite: admission to program. Basic science and laws governing gases as well as appliances to administer and monitor oxygen. Covers equipment used to generate and give aerosol therapy. Lecture/laboratory.

122 RESPIRATORY PATIENT CARE *3 credits*
Prerequisites: 2780:106 (or equivalent) 2790:121. Corequisite: 2780:107 (or equivalent). Covers basic hospital practices in sterile technique, suctioning and postural drainage. Lecture/laboratory.

123 MECHANICAL VENTILATORS *3 credits*
Prerequisite: 122, 131, 141. Introduction to different brands of ventilators and their functions. Airway and airway complications.

131 CLINICAL APPLICATIONS I *3 credits*
Prerequisites: 121, 2780:106. Corequisite: 2780:107. Full admission to the program. (Implies the student has a clinical space. Students identified as Alternates do not have a clinical space.) Introduction to work in hospital and hands-on experience on hospital equipment. Laboratory.

132 CLINICAL APPLICATIONS II *2 credits*
Prerequisites: 122, 131, 141, 2780:107 (or equivalent). First of several rotations through hospitals. Mechanical ventilation is stressed.

133 CLINICAL APPLICATIONS III *5 credits*
Prerequisites: 123, 132, 201. Semester is broken into three, five-week rotations, one at each hospital to cover specialty area for that site. Laboratory.

134 CLINICAL APPLICATIONS IV *5 credits*
Prerequisites: 133, 223, 242. Semester has three, five-week sessions. They will be spent at different clinical sites working on their specialty areas. Laboratory.

141 PHARMACOLOGY *2 credits*
Corequisites: 2820:105 and 3100:130. Drugs administered by respiratory therapy and effect, route of action in the body. Lecture.

201 ANATOMY AND PHYSIOLOGY OF CARDIOPULMONARY SYSTEMS *3 credits*
Prerequisite: 2780:107 (or equivalent). Study of normal anatomy and physiology of heart and lungs. Lecture.

223 ADVANCED RESPIRATORY CARE *3 credits*
Prerequisites: 123, 201. Covers EKG, Pulmonary functions, research studies and radioactive pulmonary function studies. Lecture/laboratory.

224 PULMONARY REHABILITATION AND THE RESPIRATORY CARE DEPARTMENT *2 credits*
Prerequisites: 223, 242. Covers area of pulmonary rehabilitation. Includes essentials of establishing a respiratory therapy department. Lecture/laboratory.

242 PATHOLOGY FOR RESPIRATORY CARE *3 credits*
Prerequisites: 201, 3100:130. Discussion of disease processes, diseases of lung and heart, their effect on respiratory therapy.

290 SPECIAL TOPICS: RESPIRATORY CARE *3 credits*
(May be repeated for a maximum of three credits) Prerequisite: permission. Selected topics or subject areas of interest in respiratory therapy technology.

GENERAL TECHNOLOGY

2820:

100 INTRODUCTION TO ENGINEERING TECHNOLOGY *2 credits*
Introductory course describing various engineering technologies in terms of job skills, nature of careers, and employment opportunities. Overview of technical terminology.

105 BASIC CHEMISTRY *3 credits*
Elementary treatment of facts and principles of chemistry emphasizing biological application. Elements and compounds important in everyday life, biological processes and medicine. Introduction to laboratory techniques. Primarily for medical assistant, criminal justice and allied health students. Laboratory.

110 PHYSICAL SCIENCE FOR TECHNICIANS *3 credits*
Elementary presentation of theory and facts of general chemistry and physics (excluding electricity). Includes atomic structure, chemical reactions, energy, electromagnetic radiation, sound and mechanics.

111 INTRODUCTORY CHEMISTRY *3 credits*
Corequisite: 2030:152. Facts and theories of general chemistry. Elements and compounds and their uses. Elementary treatment of atomic structure, gaseous state, periodic table, water, solutions. Laboratory.

112 INTRODUCTORY AND ANALYTICAL CHEMISTRY *3 credits*
Prerequisite: 111 or permission. Chemical equilibria, ionization, radioactivity. Properties of selected metals and nonmetals. Introduction to organic chemistry. Basic concepts of qualitative analysis. Identifications of cations and anions. Laboratory.

121 TECHNICAL COMPUTATIONS *1 credit*
Prerequisite: 2030:151; corequisite for drafting technology students only: 2940:151. Use of computer to solve typical problems in engineering technology. Concepts of flow charting, looping, variables, arrays, subroutines examined. BASIC computer language introduced.

131 SOFTWARE APPLICATIONS FOR TECHNOLOGY *1 credit*
Prerequisite: 2030:151. Operating systems basics. Internet usage and searches. Emphasis on using spreadsheets to analyze and graph data, databases for data input, and technical report compilation.

161 TECHNICAL PHYSICS: MECHANICS I *2 credits*
Corequisite: 2030:152. Principles of mechanics that include motion, vectors, forces, equilibrium; also, significant figures and unit conversions. Laboratory.

162 TECHNICAL PHYSICS: MECHANICS II *2 credits*
Prerequisite: 161; corequisite: 2030:153. Principles of mechanics that include work, power, conservation of energy, rotational motion, torque. Laboratory.

163 TECHNICAL PHYSICS: ELECTRICITY AND MAGNETISM *2 credits*
Prerequisites: 161; corequisite: 2030:153. Principles of electricity and magnetism. Electrostatics, basic direct current circuits, magnetism and electromagnetism, alternating currents, basic AC circuits. Laboratory.

164 TECHNICAL PHYSICS: HEAT AND LIGHT *2 credits*
Prerequisites: 161 and 2030:153. Topics include thermal behavior of matter,thermodynamics, light, geometric and physical optics. Introduction to atomic and nuclear physics.

290 SPECIAL TOPICS: GENERAL TECHNOLOGY *1-2 credits*
(May be repeated for a total of four credits.) Prerequisite: Permission. Selected topics of subject areas of interest in Chemical Technology.

310 PROGRAMMING FOR TECHNOLOGISTS *2 credits*
Prerequisites: 121 and 2030:153. An in-depth study of a technical programming language, plus basic operating system commands and hardware configurations. Limited to students in Engineering and Science Technology Division.

ELECTROMECHANICAL SERVICE TECHNOLOGY

2830:

110 ELECTROMECHANICAL DEVICES *4 credits*
Prerequisite: 2860:110. Application-oriented study of electromagnetic sensors and the electronic devices and circuits used to implement industrial control sensors.

210 MOTION CONTROL I *4 credits*
Prerequisite: 110. Principles, applications, and troubleshooting of AC and DC electric generators and motors. Introduction to basic mechanical and motion control.

220 MOTION CONTROL II *3 credits*
Prerequisite: 210. Integration of basic devices with the speed and position controlling systems for DC and AC motors, servomotors, stepper motors, and hydraulic valves and cylinders.

230 MACHINE AND PROCESS CONTROL *4 credits*
Prerequisite: 110. Introduction to the integration of control components into a complete industrial machine or process control system. Study of the types of systems and the required documentation.

240 INDUSTRIAL COMPUTER CONTROL *3 credits*
Prerequisite: 110. Introduction to digital electronics as it applies to industrial control. Survey of number systems, basic digital devices, microprocessors, microcomputer-based control components.

250 PROGRAMMABLE CONTROLLERS *3 credits*
Prerequisite: 230. Principles of operation, application, and troubleshooting of programmable controllers. Includes programming of ladder logic systems.

260 ELECTRICAL POWER AND WIRING *3 credits*
A study of electrical power distribution, residential, commercial, industrial wiring, and electrical safety. Emphasis on the requirements of the National Electrical Code.

270 TROUBLESHOOTING AND REPAIR PRACTICES *3 credits*
Prerequisite: 210, 230. Surveys mechanical, hydraulic, pneumatic, electrical, and electronic troubleshooting and repair practices. Problem isolation, repair, and shop practices are considered. Safety practices are emphasized.

POLYMER TECHNOLOGY

2840:

111 POLYMER TECHNOLOGY I *3 credits*
Introduction to chemical and physical structure, properties and applications of polymers. Interaction between materials properties, product design and processing. CHaracterization of the major processes.

112 POLYMER TECHNOLOGY II *3 credits*
Prerequisite: 111. This course emphasizes the processing of thermoplastics and thermosetting plastics. The laboratory introduces students to some of the major processes and equipment operation.

202 INSTRUMENTAL METHODS *4 credits*
Prerequisites: 2820:111, 2840:111, 2860:110. Instrumentation employed in qualitative and quantitative analysis. Theory and practice in chromatographic, spectrophotometric and other instrumental methods. Laboratory.

211 POLYMER TECHNOLOGY III *3 credits*
Prerequisites: 2820:131, 2840:101, 112. This course emphasizes the testing and characterization of materials used in polymer product fabrication, and the testing and analysis of finished polymer products.

220 CASE STUDIES IN POLYMER DESIGN AND PROCESSING *2 credits*
Prerequisite: 211. Combines study of polymer properties, processing, and design guidelines to analyze complete manufacturing, testing, and quality assurance programs. Examples of significant applications analyzed in detail.

260 COMPOUNDING METHODS *2 credits*
Prerequisites: 102, 121 or permission. Principles and methods of selecting and compounding rubber for specific end uses. The compounder's art. Processing and testing of basic elastomers and products. Laboratory.

270 NATURAL AND SYNTHETIC ORGANIC POLYMERS *4 credits*
Prerequisite: 121 or permission. Structure and properties of macromolecules with particular reference to carbohydrates, proteins, nucleic acids, rubber, synthetic thermoplastic, thermosetting and elastomeric polymers.

281 POLYMER LAB PROJECT *2 credits*
Prerequisite: 211. Student teams, choosing their own projects, design a polymeric product, select materials, processes, and simulate design and development of the product. Individual final reports required.

290 SPECIAL TOPICS: POLYMER TECHNOLOGY *1-2 credits*
(May be repeated for a total of four credits) Prerequisite: permission. Selected topics or subject areas of interest in chemical technology.

ELECTRONIC ENGINEERING TECHNOLOGY

2860:

110 BASIC ELECTRICITY AND ELECTRONICS *4 credits*
Prerequisite: 2030:130 or equivalent. Principles of electronics: resistors, inductance, capacitance, transistors, microprocessors, power sources, motors, generators, test equipment, circuit diagnosis, troubleshooting. Credit not applicable toward the A.A.S. in Electronic Technology.

120 DC CIRCUITS *4 credits*
Corequisite: 2030:152, 153. Nature of electricity, SI units, current and voltage, Ohm's Law, network analysis, Thevenin's Theorem, inductor, capacitor, transients, DC instruments, measurements, laboratory support of circuit concepts.

122 AC CIRCUITS *3 credits*
Prerequisite: 120; corequisites: 2030:154 and 2820:121. Sinusoidal voltage and current, reactance and impedance, methods of AC circuit analysis, AC power, transformers, AC meters and oscilloscopes, dependent and independent sources.

123 ELECTRONIC DEVICES *3 credits*
Corequisite: 122. Physical theory, characteristics and operational parameters of solid-state electronic devices. Analysis and design of electronic circuits incorporating these devices, utilizing characteristic curves and linear modeling.

136 INTRODUCTION TO DIGITAL CONCEPTS *1 credit*
Prerequisite: 120. Introduction to devices and techniques used in the design of combinational logic circuits. Topics include number systems, various arithmetic codes, Boolean algebra and Karnaugh mapping.

225 ELECTRONIC DEVICES APPLICATIONS *4 credits*
Prerequisite: 123. Electronic amplifiers, power amplifiers, Classes A and B. Frequency response, Bode plots. Differential amplifiers. Operational amplifiers. Power supplies, filters and regulators. Feedback and oscillators.

231 CONTROL PRINCIPLES *3 credits*
Prerequisites: 225, 2030:255. Principles and design for control of physical systems. Mathematical and analog computer modeling of physical systems. Principles of closed-loop control systems. Design of simple servomechanisms.

237 DIGITAL CIRCUITS *4 credits*
Prerequisites: 123 and 136. Introduction to devices used in design of logic circuits. Topics include logic families, flip flops, counters, shift registers multiplexers, demultiplexers, arithmetic circuits, and memories.

238 MICROPROCESSOR FUNDAMENTALS *4 credits*
Prerequisite: 237. Principles and architecture of microprocessor and memory. Assembly language programming, microprocessor bus and interface applications are investigated. Techniques for hardware and software debugging.

242 MACHINERY AND CONTROLS *4 credits*
Prerequisites: 122 and 123 or 271. Principles, characteristics and applications of DC and AC generators and motors. Basic control circuits for rotating machinery. Principles of industrial electronic devices. Introduction into programmable controllers.

251 COMMUNICATIONS CIRCUITS *3 credits*
Prerequisite: 225. Resonance, coupling, filters, oscillators, mixers, power amplifiers, AM, FM, receivers.

255 ELECTRONIC DESIGN AND CONSTRUCTION *2 credits*
Prerequisite: 123. Drafting fundamentals. Printed circuit board layout. Shop safety practices. Tool care and use. Chassis and sheet metal layout and fabrication; metal finishing, packaging techniques.

260 ELECTRONIC PROJECT *2 credits*
Prerequisites: final semester or permission and 255. Design, construction and testing of an electronic circuit of choice. Progress reports, oral and written reports required. Discussion of electronic design and fabrication techniques.

270 SURVEY OF ELECTRONICS I *3 credits*
Prerequisite: 2820:163. Fundamentals of DC and AC electrical circuits and rotating machinery. For non-electronic technology majors.

271 SURVEY OF ELECTRONICS II *3 credits*
Prerequisite: 270. Survey of the most commonly used solid-state circuit components including typical applications. Introduction into digital circuits and microprocessor applications. For non-electronic technology majors.

350 ADVANCED CIRCUIT THEORY *3 credits*
Prerequisite: 225, 231. Corequisite: 2030:356. Nodal, mesh, Thevenin, and dependent sources in resistive circuits. Inductor and capacitor as time domain elements. First- and second-order circuit analysis. Phasor analysis. Operational amplifier analysis.

352 MICROPROCESSOR SYSTEMS *4 credits*
Prerequisite: 238; corequisite: 350. Study of microprocessors and microcomputers, topics in architecture, assembly language, software, operating systems, I/0 interface circuits. Specific systems studied include the 8088 and the IBM PC.

354 ADVANCED CIRCUIT APPLICATIONS *4 credits*
Prerequisites: 350; 2030:356; and 3460:201 or 3460:205 or 2820:310. Introduction to PSPICE. Calculating electrical power. Series and parallel resonance. LaPlace transforms in operational circuit analysis. Transfer functions, impulse function, Bode diagrams, Fourier Series.

400 COMPUTER SIMULATIONS IN TECHNOLOGY *3 credits*
Prerequisites: 354, 2030:345, 3460:201 or 205 or 2820:310. Software simulation of electronic circuits. Production of circuits is simulated using random generation of components. Output is presented using both 2- and 3- dimensional techniques.

406 COMMUNICATION SYSTEMS *3 credits*
Prerequisites: 251 and 354. Digital communications, transmission lines, waveguides, microwave devices and antennas.

420 BIOMEDICAL ELECTRONIC INSTRUMENTATION *3 credits*
Prerequisite: 354. Introduction to electrical signals from the body, transducers, recording devices, telemetry, microprocessor applications, and electrical safety of medical equipment.

430 SENIOR TOPICS IN ELECTRONIC TECHNOLOGY *3 credits*
Prerequisites: 354, 400. Study of advanced topics in electronic technology.

451 INDUSTRIAL ELECTRICAL SYSTEMS *3 credits*
Prerequisites: 354, 3460:201 or 205 or 2820:310. Electric power, industrial nameplates, power factor correction, mutual inductance, linear transformers, power transformers, polyphase systems, per-phase analysis, system grounding, protective device coordination computer-aided analysis.

453 CONTROL SYSTEMS *4 credits*
Prerequisites: 231, 354. Modeling and responses of closed-loop systems. LaPlace transforms, root-locus analysis. Stability, compensation, digital control, optimal control. Digital computer in system simulation and design.

497 SENIOR HONORS PROJECT: ELECTRONIC TECHNOLOGY *1-3 credits*
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors Program, permission of department preceptor and major in electronic technology. Independent research leading to completion of Senior Honors Thesis or other original work.

AUTOMATED MANUFACTURING ENGINEERING TECHNOLOGY

2870:

301 COMPUTER CONTROL OF AUTOMATED SYSTEMS *3 credits*
The development of computer based systems and computer programs using robotics and machine controllers as the solutions for automated manufacturing problems.

311 FACILITIES PLANNING *2 credits*
Prerequisite: 2940:180 or 2940:210. An application based study of facilities analysis, design and layout utilizing software based solutions.

420 MATERIALS AND PROCESSES *2 credits*
A study of part production from the aspect of the proper selection of materials and processes.

470 SIMULATION OF MANUFACTURING SYSTEMS *2 credits*
Prerequisite: 2880:211. Computer simulation solutions applied to the traditional manufacturing problems of equipment justification production line balancing, and capacity planning.

480 AUTOMATED PRODUCTION *2 credits*
Prerequisites: 2880:211 or senior status. A study of the automated production system. The various topics studied thus far CAD, CNC, and management are integrated. Several companies are used as case studies.

490 MANUFACTURING PROJECT *2 credits*
Prerequisite: Senior status. Advanced CADCAM topics are presented. A comprehensive project is undertaken.

MANUFACTURING ENGINEERING TECHNOLOGY

2880:

100 BASIC PRINCIPLES OF MANUFACTURING MANAGEMENT *4 credits*
A survey of basic concepts of management and their interrelationships to a manufacturing environment. Includes production control, quality control, work measurement, and employee motivation.

110 MANUFACTURING PROCESSES *2 credits*
Study of the machines, methods, and processes used in manufacturing.

130 WORK MEASUREMENT AND COST ESTIMATING *3 credits*
Prerequisite: 100. Time and motion study. Development of accurate work methods and production standards, and their relationship to manufacturing cost estimates.

151 INDUSTRIAL SAFETY AND ENVIRONMENTAL PROTECTION *2 credits*
A contemporary overview of the science and management of occupational health and safety programs, policies, and procedures in an industrial and business type environment.

201 ROBOTICS AND AUTOMATED MANUFACTURING *3 credits*
Prerequisite: 100 or permission of instructor. Study of manufacturing automation and the computer-based products and processes available for this task. Robots, machine controllers, and machine/process interfaces are investigated.

210 CONTROLLING AND SCHEDULING PRODUCTION *2 credits*
Prerequisite: 100. Production order followed from sales order through requisitioning, plant loading, expediting, scheduling and shipping. Also covers material control and inventory record keeping. Critical path, linear programming and EDP techniques discussed.

211 COMPUTERIZED MANUFACTURING CONTROL *3 credits*
Prerequisite: 100. Processing of production order by computer through requisitioning, plant loading, expediting, scheduling and shipping of product. Creation on computer of material requisitions, plant schedules, sent-to-stocks and shipping orders as by-products of processing production order.

232 LABOR MANAGEMENT RELATIONS *3 credits*
Prerequisite: 100. Study of historical background of labor movement, management viewpoints, legal framework for modern labor organizations and collective bargaining process.

241 INTRODUCTION TO QUALITY ASSURANCE *3 credits*
Prerequisite: 100 and 2030:152. Theory and practice of inspection and sampling techniques for measurement of quality, QC charts, sampling plans, mill specs, checking machine capabilities, and setting tolerances.

290 SPECIAL TOPICS: MANUFACTURING TECHNOLOGY *1-2 credits*
(May be repeated for a total of four credits) Prerequisite: permission. Selected topics or subject areas of interest in industrial technology.

MECHANICAL ENGINEERING TECHNOLOGY

2920:

101 INTRODUCTION TO MECHANICAL DESIGN *3 credits*
Prerequisite: 2940:121; corequisite: 2030:154. Topics in engineering drawing: conventions, sections, dimensioning and tolerancing. Detail drawings, subassembly and assembly drawings. Manufacturing processes. Descriptive geometry. Drawing mechanical components.

110 FUNDAMENTAL SCIENCE FOR AUTOMOTIVE TECHNOLOGY *4 credits*
Prerequisite: 2030:130 with grade C or better. Scientific relationships of automotive systems: force, work, energy, friction, fluid properties, and thermodynamic principles of the engine. Credit not applicable toward the A.A.S. in Mechanical Technology.

130 INTRODUCTION TO HYDRAULICS AND PNEUMATICS *3 credits*
Principles of hydrostatic forces, pressure, density, viscosity, incompressible and compressible fluids. Principles of hydraulic and pneumatic devices and systems.

142 INTRODUCTION TO MATERIAL TECHNOLOGY *3 credits*
Fundamental properties of materials. Material testing. Applications of methods to control material properties.

243 KINEMATICS *2 credits*
Prerequisite: 101 and 2980:125. Study of rigid-body motions of simple linkages, cams, gears and gear trains. Graphical vector solutions emphasized. Industrial applications presented.

245 MECHANICAL DESIGN II *5 credits*
Prerequisites: 142; 2940:210; 2980:241. Corequisite: 2920:243 Design of machine elements: springs, shafts, fasteners, welded joints. Combined stress and fatigue analysis. Design projects. Experimental stress analysis.

247 TECHNOLOGY OF MACHINE TOOLS *3 credits*
Set up and operation of tool room machines: lathe, drill press, shaper, milling machine, and tool grinder. Planning operations and layout.

249 APPLIED THERMAL ENERGY I *2 credits*
Prerequisites: 2030:255, 2820:164. Thermodynamic principles. Study of power cycles. Applications in I.C. engines, compressors, steam power cycles, refrigeration.

251 FLUID POWER *2 credits*
Prerequisites: 2820:162, 164. Statics and dynamics of fluids. Viscosity, energy and momentum relationships. Fluid machinery and measurements.

252 THERMO-FLUIDS LABORATORY *1 credit*
Prerequisite: 251; corequisite: 249. Laboratory experiments in applied thermal energy and fluid power.

290 SPECIAL TOPICS: MECHANICAL ENGINEERING TECHNOLOGY *1-2 credits*
(May be repeated for a total of four credits) Prerequisite: permission. Selected topics or subject areas of interest in Mechanical Engineering Technology.

310 ECONOMICS OF TECHNOLOGY *3 credits*
Prerequisite: 64 credits or permission. Economic principles as they pertain to technology. Equivalence, alternatives, costs, depreciation, valuation. Project studies.

335 WELDING, THEORY AND PRACTICE *3 credits*
Prerequisite: 142. Design of weldments and welding processes. Welding of ferrous, nonferrous and plastic materials.

336 WELDING PROJECTS *1 credit*
Prerequisite: 335. Individual projects containing elements of analysis, design and laboratory implementation.

339 ADVANCED TECHNOLOGY OF MACHINE TOOLS *2 credits*
Prerequisite: 247, 142. Selected topics dealing with sophisticated metal cutting techniques.

344 DYNAMICS *2 credits*
Prerequisites: 243; 2030:255; 2980:125. Introduces particle dynamics, displacement, velocity, and acceleration of contained rigid bodies in plane motion. Kinetics of particles and rigid bodies, work and energy, mechanical vibrations.

346 MECHANICAL DESIGN III *4 credits*
Prerequisites: 244, 245; 2820:310. Continuation of design of mechanical components: gears, bearings, brakes, and clutches. Special topics presented will be coordinated with assigned design projects.

347 PRODUCTION MACHINERY AND PROCESSES *3 credits*
Prerequisites: 245, 247 and 2030:255. Study of manufacturing processes (casting, forging, welding, forming sheet metal), integrating material technology, mechanical design, and mechanics of materials.

348 CNC PROGRAMMING I *3 credits*
Prerequisites: 2940:121, 2030:154; or permission. Introduction to numerical control (N/C) of operation of machine tools and other processing machines. Includes programming, types of N/C systems, economic evaluation.

365 APPLIED THERMAL ENERGY II *2 credits*
Prerequisites: 249, 251. Review of thermodynamic principles with application to the design of heating and air conditioning systems. Includes basic heat transfer and heating and cooling load calculations.

370 PLASTICS DESIGN AND PROCESSING *3 credits*
Prerequisites: 142, 2840:101 (or permission), and 2980:241. Introduction to structure and properties of polymers, selection based on properties and cost, design of products and tools, basic principles of the major processes.

402 MECHANICAL PROJECTS *1 credit*
Prerequisite: senior standing. Individual projects emphasizing creative technical design.

405 INDUSTRIAL MACHINE CONTROL *3 credits*
Prerequisite: 2860:270. Principles and design of industrial machine control systems. Application oriented study of typical control devices. Utilization of programmable controllers as the system logic controllers.

448 CNC PROGRAMMING II *3 credits*
Prerequisite: 348. Introduction to computer-assisted interactive part programming system. Writing of milling and drilling programs.

470 PLASTICS PROCESSING AND TESTING *2 credits*
Prerequisites: 370 or permission. Use of basic polymer testing methods. Setup and operation of modern molding and extrusion equipment. Basic troubleshooting procedures. Study of processing effects on final properties.

497 SENIOR HONORS PROJECT IN MECHANICAL ENGINEERING TECHNOLOGY *1-3 credits*
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors Program, permission of area honors preceptor and major in mechanical technology. Independent research leading to completion of senior honors thesis or other original work.

DRAFTING AND COMPUTER DRAFTING TECHNOLOGY

2940:

121 TECHNICAL DRAWING I *3 credits*
Corequisite: 210. Lettering and proper use of drawing instruments; freehand sketching; geometric drawing; orthographic projection; auxiliary views, sections, pictorials; introduction to basic descriptive geometry.

122 TECHNICAL DRAWING II *3 credits*
Prerequisite: 121, 210. Covers dimensioning; allowances and tolerances; geometric tolerancing; threads and fasteners; descriptive geometry; intersections; developments; and computer applications.

140 SURVEY OF ENGINEERING TECHNOLOGY *3 credits*
Prerequisite: 2030:151. Introductory course in basic concepts pertaining to mechanical, civil and electrical technology. A study of technical terminology, and applied math. Graphical solutions will be emphasized.

150 DRAFTING DESIGN PROBLEMS *2 credits*
Prerequisite: 2030:152; corequisite: 2820:121. Introductory course in basic concepts in engineering technology computations. A study of technical terminology and applied mathematics.

170 SURVEYING DRAFTING *3 credits*
Prerequisite: 121; corequisite: 2030:152. Drafting procedures, techniques and tools required for the various phases of survey office work. Projects in topographic maps, plan and profile drawings, and cross-section drawings.

180 INTRODUCTION TO COMPUTER AIDED DRAFTING *1 credit*
Drafting techniques using AutoCAD. Topics include drawing, editing, dimensioning, plotting, layers and text. Credit not applicable toward the AAS in Dafting and Computer Aided Drafting Technology.

200 ADVANCED DRAFTING *3 credits*
Prerequisite: 122. Principles of descriptive geometry applied to practical problems pertaining to the civil and mechanical fields of technology.

210 COMPUTER AIDED DRAWING I *3 credits*
Corequisite: 121. Drafting techniques using AutoCAD. Topics include drawing, editing, layers, text, dimensioning, graphic patterns, blocks, attributes, model space, paper space, and plotting.

211 COMPUTER AIDED DRAWING II *3 credits*
Prerequisite: 2940:210. Continuation of 2940:210. This course covers advanced topics in the use of AutoCAD. Those topics include UCS, VPoint, DView, wire frames, Boolean functions, customization, and AutoLISP.

230 MECHANICAL SYSTEMS DRAFTING *3 credits*
Prerequisite: 122. Drawing fundamentals and terminology of welding, gears, cams, piping, sheet metal, and fluid power drawings.

240 ELECTRICAL AND ELECTRONIC DRAFTING *3 credits*
Corequisite: 122. Drafting fundamentals, terms, and symbols required for electrical, electronics, and instrumentation drawings. Included are interconnecting diagrams, PC boards, and architectural and industrial plans.

250 ARCHITECTURAL DRAFTING *3 credits*
Prerequisite: 121. Drawing fundamentals, terminology, and symbols for developing a set of basic construction plans and details. Included also are presentation drawings and interior and exterior planning.

260 DRAFTING TECHNOLOGY PROJECT *3 credits*
Prerequisite: Completion of 20 credits of 2940. Provides opportunity to research and develop a specific drafting project within chosen field of interest.

290 SPECIAL TOPICS: DRAFTING TECHNOLOGY *1-3 credits*
(May be repeated for a total of three credits) Prerequisite: permission. Selected topics on subject areas of interest in drafting technology.

SURVEYING AND CONSTRUCTION ENGINEERING TECHNOLOGY

2980:

101 BASIC SURVEYING I *2 credits*
Corequisites: 2030:152. Care and use of basic surveying field instruments used in land surveying. Instruments include: Transit, Theodolite, Total Stations, Steel Tape, EDMs, and Levels. Field practice.

102 BASIC SURVEYING II *2 credits*
Prerequisites: 101 and 2030:153. Corequisite: 180 or equivalent. The computation and adjustment of field survey measurements using both conventional and computer methods. Final product production in both tabulated and graphic representations stressed.

122 BASIC SURVEYING *3 credits*
Basic tools and computations for surveying; measurements of distance, elevations and angles; traverse surveys. Field practice.

123 SURVEY FIELD PRACTICE *2 credits*
Prerequisite: 122. Practical experience in use of surveying equipment and methods of surveying. Provides student with responsibility for making decisions and planning and directing complete project.

125 STATICS *3 credits*
Prerequisites: 2820:161 and 2030:153. Forces, resultants and couples. Equilibrium of force systems. Trusses, frames, first and second moment of areas, friction.

222 CONSTRUCTION SURVEYING *3 credits*
Prerequisite: 122. Methods and procedures for establishing line and grade for construction. Circular, spiral and parabolic curves. Cross-sectioning methods and earthwork. Field practice.

223 FUNDAMENTALS OF MAP PRODUCTION *3 credits*
Prerequisite: 2940:180. Introduction to the art and science of maps and map production. Course includes the history of mapping and an overview of the field of cartography.

224 LAND SURVEYING *3 credits*
Prerequisite: 122 or permission. Historical development of boundaries, rectangular system of public land surveys, systems to describe property, working and interpretation of deed descriptions, surveyor's rights, duties and responsibilities. THIS COURSE IS CURRENTLY INACTIVE.

225 ADVANCED SURVEYING *3 credits*
Prerequisite: 122. Introduction to theory of errors, precise leveling, baseline measurements, triangulation, trilateration and bearings from celestial observation. Photogrammetry. Field practice.

226 SUBDIVISION DESIGN *3 credits*
Prerequisite: 222; corequisite: 224. Site analysis, land use controls and plotting procedures. Laboratory includes preparation of various types of projects leading to a complete subdivision.

227 INTRODUCTION TO GEOGRAPHIC AND LAND INFORMATION SYSTEMS *3 credits*
Prerequisites: 223, 2820:131 and 2940:180. Introduction to the principles and concepts of Geographic Land Information Systems used in surveying and mapping application. Laboratory.

231 BUILDING CONSTRUCTION *2 credits*
Materials and types of construction used in heavy construction. Encompasses buildings constructed with heavy timber, steel, concrete or a combination of these materials.

232 CONSTRUCTION *3 credits*
Prerequisite: 222. Planning of construction operations. Construction equipment and selection for typical jobs. Emphasis on heavy construction.

234 ELEMENTS OF STRUCTURES *3 credits*
Prerequisite: 241. Principles of stress and structural analysis of members in steel, timber and concrete.

237 MATERIALS TESTING I *2 credits*
Laboratory testing of soils with emphasis on physical properties of soil. Laboratory and field procedures used for quality control. Testing of concrete mixes.

238 MATERIALS TESTING II *2 credits*
Prerequisite: 237; corequisite: 241. Mix design of concrete. Laboratory testing of ferrous and nonferrous metals, woods and concrete. Experiments demonstrate physical properties as related to design.

241 STRENGTH OF MATERIALS *3 credits*
Prerequisite: 125. Stress, strain and stress-strain relationships. Tension, compression, torsion, beams. Shear and moment diagrams.

245 COST ANALYSIS AND ESTIMATING *3 credits*
Prerequisite: 231. Quantity surveys in construction. Elements of cost in construction, determination of unit costs, analysis of cost records.

250 STRUCTURAL DRAFTING *2 credits*
Prerequisite: 2940:121, 180. Duties of structural draftsman in preparation of detailed working drawings for steel and concrete. Emphasis on portrayal, dimensions and notes on a working drawing.

290 SPECIAL TOPICS: SURVEYING AND CONSTRUCTION TECHNOLOGY *1-3 credits*
Prerequisite: permission. Selected topics or subject areas of interest in surveying and construction technology.

310 APPLIED PHOTOGRAMMETRY FOR SURVEYORS *3 credits*
Prerequisite: 225. Concepts of photogrammetry, measurements on aerial photographs, and analysis of natural and man-made features on photographs related to land use and form.

320 SURVEY COMPUTATIONS AND ADJUSTMENTS *3 credits*
Prerequisite: 225. Corequisite: 2940:210. Concepts related to measurement error, probability and reliability. Computation adjustment of horizontal and vertical networks. Introduction to matrix algebra and least-squares adjustment.

410 BOUNDARY SURVEYING *3 credits*
Prerequisite: 122 and 2940:210. Analysis of evidence and procedures for boundary location; establishing and/or locating points for boundary, mortgage location, topographic, site plans, and as-built surveys.

415 LEGAL ASPECTS OF SURVEYING *3 credits*
Prerequisite: 122. A study of statute and common law related to land surveying. Case studies related to legal precedent and the surveyor's role in the judicial process.

420 ROUTE SURVEYING *3 credits*
Prerequisite: 225. Surveying for long but narrow strips of land such as highways, railroads, and pipe lines. Course includes all requisite calculations and drawings.

425 LAND NAVIGATION *3 credits*
Interpretation and use of topographic maps. Study of basic map elements with emphasis on identification of features and coordinate systems. Map use for land navigation.

430 SURVEYING PROJECT *3 credits*
Prerequisite: senior standing and permission. Provides opportunity to research and develop a specific surveying project within chosen area of surveying. Oral, written and graphical presentation of completed project(s).

489 SPECIAL TOPICS IN SURVEYING *1-3 credits*
Prerequisite: permission. Special lecture/laboratory courses offered once or only occasionally in areas where no formal course exists. (May be repeated for a maximum of six credits.)

490 WORKSHOP IN SURVEYING *1-3 credits*
Prerequisite: permission. Group study of special topics in surveying. May not be used to meet undergraduate major requirements in surveying. May be used for elective credit only. (May be repeated for a maximum of six credits.)

Buchtel College of Arts and Sciences

COOPERATIVE EDUCATION

3000:

301 COOPERATIVE EDUCATION *0 credits*
(May be repeated) For cooperative education students only. Work experience in business, industry, or governmental agency. Comprehensive performance evaluation and written report required.

INTERDISCIPLINARY PROGRAM

WOMEN'S STUDIES

3001:

100 SOCIAL AND CULTURAL DIVERSITY IN THE U.S. *3 credits*
Explores the range and impact of pluralistic experience in the U.S. emerging from differences in race, class, ethnicity, gender, age, ability, and sexual orientation.

110 MULTICULTURAL SENSITIVITY TRAINING *1 credit*
Introductory course designed to teach awareness and skills necessary for coping with and appreciating diversity of race, class, gender, ethnicity, and sexual orientation.

300 INTRODUCTION TO WOMEN'S STUDIES *3 credits*
Introduction to the interdisciplinary program in Women's Studies. Explores current scholarship in women's issues and experiences from perspectives of psychology, history, sociology, anthropology, and literary criticism. Feminist orientation and methodology.

480/580 FEMINIST THEORY *3 credits*
Prerequisite: 300. A summary of feminist theory to familiarize students with the main currents in contemporary feminist theory and the origins and evolution of that thought.

485/585 SPECIAL TOPICS IN WOMEN'S STUDIES *1-3 credits*
(May not be repeated). Special topics and current issues in Women's Studies. Covers content not currently addressed in other courses. Fosters a critical approach to knowledge about women.

490/590 WORKSHOP *1-3 credits*
(May not be repeated). Various topics focused on women. Themes and course materials vary each semester. Lecture and discussion.

493 INDIVIDUAL STUDIES ON WOMEN *1-3 credits*
Prerequisite: 300, and approval of Director of Women's Studies. Directed study of selected topics related to women. Projects are chosen by student in consultation with instructor.

INTERDISCIPLINARY PROGRAM

PAN-AFRICAN STUDIES

3002:

201 INTRODUCTION TO PAN-AFRICAN STUDIES *3 credits*
Prerequisites: 3300:112 or 2020:121. An interdisciplinary study from an Afrocentric perspective of African and African diaspora experiences. The course will focus on central issues related to the discipline.

301 THE CIVIL RIGHTS MOVEMENT IN AMERICA: 1945-1974 *3 credits*
Social and political actions, events and environment which produces civil rights movement in America. Legal, political and organizational strategies; philosophical arguments; prominent civil rights activists.

401 GENERAL SEMINAR IN PAN-AFRICAN STUDIES *3 credits*
Prerequisite: 3400:260 or permission. Exploration and intensive examination of variety of issues related to role and minority group relations which normally stand outside the compass of any one subject matter area.

420 SPECIAL TOPICS IN PAN-AFRICAN STUDIES *1-3 credits*
(May be repeated for a maximum of three semester credits). Prerequisite: permission of instructor.

498 INDEPENDENT STUDY *1-3 credits*
(May be repeated for a maximum of three semester credits). Prerequisites: 3002:201 and 3400:260 or 3400:261 and permission of director. Directed study in a special field of interest chosen by student in consultation with instructor.

INTERDISCIPLINARY PROGRAM

CONFLICT MANAGEMENT

3003:

230 INTRODUCTION TO CONFLICT MANAGEMENT/RESOLUTION *3 credits*
Examination of the theoretical foundations of conflict and conflict management/resolution tactics to provide a sound and common intellectual framework for the systematic analysis and application of conflict methodologies.

300 SPECIAL TOPICS IN PEACE STUDIES *1-3 credits*
See Schedule of Classes for current subject. (May be repeated for a total of three credits.) Interdisciplinary topics related to peace studies.

301 VALUE CONCEPTS ON PEACE AND WAR *3 credits*
Interdisciplinary study of attitudes, concepts and realities regarding war and peace issues.

350 INDEPENDENT STUDY *1-3 credits*
(May be repeated for a total of three credits) Prerequisite: Approval of Director of Peace Studies. Detailed study on selected topics related to peace.

378 INTRODUCTION TO HUMAN RIGHTS CONCEPTS *3 credits*
Interdisciplinary and cross-cultural survey of basic concepts of human rights as recognized by international law. Limitations and future issues are raised.

382 THE VIETNAM WAR *3 credits*
An examination and evaluation of political, military, diplomatic, and economic impact of the Vietnam War.

390 WORKSHOP IN PEACE STUDIES *1-3 credits*
(May be repeated for a total of four credits) Group studies in peace and war-related subjects and issues.

430 INTEGRATIVE APPROACHES TO CONFLICT MANAGEMENT/RESOLUTION *3 credits*
Prerequisite: 230. Comparison and workshop applications of strategies and concepts of conflict management/resolution.

495 INTERNSHIP IN CONFLICT MANAGEMENT *3-6 credits*
(May be taken for a total of six hours.) Prerequisite: 230 or 430. Supervised individual placement in local community organization or governmental agency that deals with conflict management issues.

INTERDISCIPLINARY PROGRAM

CANADIAN STUDIES

3005:

300 CANADIAN STUDIES: AN INTERDISCIPLINARY APPROACH *3 credits*
This course provides historical, political, geographical, sociological, and literary overview of Canada. Team-taught.

INTERDISCIPLINARY PROGRAM

INSTITUTE FOR LIFE-SPAN DEVELOPMENT AND GERONTOLOGY

3006:

450 INTERDISCIPLINARY SEMINAR IN LIFE-SPAN DEVELOPMENT AND GERONTOLOGY *2 credits*
(May be repeated for a total of two credits) Prerequisite: permission of instructor. Introduction to interdisciplinary study of gerontology including discussion of dimensions of aging, historical framework of aging in America, demographics, service systems, and current issues.

485 SPECIAL TOPICS *1-3 credits*
Prerequisite: permission of instructor. Specialized topics and current issues in life-span development or gerontology. Covers content or issues not currently addressed in other academic courses.

486/686 RETIREMENT SPECIALIST *2 credits*
An investigation of issues related to the design and implementation of pre-retirement planning and examination of life-span planning education as employed by labor, business and education.

490 WORKSHOP *1-3 credits*
(May be repeated) Group studies of special topics in life-span development and gerontology. May not be used to meet certificate requirements. May be used for elective credit only.

495 PRACTICUM IN LIFE-SPAN DEVELOPMENT AND GERONTOLOGY *1-3 credits*
(May be repeated) Prerequisite: permission. Supervised experience in research or community agency work.

INTERDISCIPLINARY PROGRAM

ENVIRONMENTAL STUDIES

3010:

201 INTRODUCTION TO ENVIRONMENTAL STUDIES *2 credits*
An interdisciplinary approach to the study of our relationship with nature and dependence upon the environment, with emphasis on current environmental problems and solutions.

401 SEMINAR IN ENVIRONMENTAL STUDIES *2 credits*
Specific environmental topic or topics from interdisciplinary viewpoint each semester. The director of Environmental Studies coordinates course; resource persons are drawn from the University and surrounding community.

490/590 WORKSHOP IN ENVIRONMENTAL STUDIES *1-4 credits*
Prerequisite: varies with topic. Credit in graduate program must have prior approval of adviser. Skills, attitudes and fundamental concepts dealing with timely environmental problems and issues covered. Instruction under direction of University faculty.

BIOLOGY

3100:

100 NATURE STUDY: PLANTS *3 credits*
Identification and biology of common plants of this region. Recommended for teachers of nature study. Not available for credit toward a degree in biology. Laboratory.

101 NATURE STUDY: ANIMALS *3 credits*
Identification and biology of common animals of this region. Recommended for teachers of nature study. Not available for credit toward a degree in biology. Laboratory.

103 NATURAL SCIENCE: BIOLOGY *4 credits*
Designed for non-science majors. Laboratory and class instruction illustrate concepts of living organisms with emphasis on mankind's position in, and influence on, the environment.

104 INTRODUCTION TO ECOLOGY LABORATORY *1 credit*
Corequisite: 105. Short field trips and laboratory studies illustrating natural and modified characteristics of selected local ecosystems.

105 INTRODUCTION TO ECOLOGY *2 credits*
Basic principles governing structure and function of natural ecosystems. Various options for managing natural resources, human populations, biotic communities and industrial technologies at global level emphasized. Not available for credit toward a degree in biology.

108 INTRODUCTION TO BIOLOGICAL AGING *3 credits*
Prerequisite: 3100:103. Survey of normal anatomical and physical changes in aging and associate diseases. (For students in gerontological programs at Wayne College. Not for B.S. biology credit.)

111 PRINCIPLES OF BIOLOGY I *4 credits*
Molecular, cellular basis of life; energy transformations, metabolism; cell reproduction, genetics, development, immunology, evolution, and origin and diversity of life (through plants). Laboratory.

112 PRINCIPLES OF BIOLOGY II *4 credits*
Prerequisite: 111. Animal diversity; nutrients, gas exchange, transport, homeostasis, control in plants and animals; behavior; ecology. (111-112 are an integrated course for biology majors.) Laboratory.

130 PRINCIPLES OF MICROBIOLOGY *3 credits*
Basic principles and terminology of microbiology; cultivation and control of microorganisms; relationships of microorganisms; medical microbiology. Laboratory. Not available for credit toward a degree in biology.

190/191 HEALTH-CARE DELIVERY SYSTEMS *1 credit each*
Health-care principles and practices. Restricted to the student in NEOUCOM, six-year BS/MD program. Graded credit/noncredit. Not available toward credit as major in biological sciences. Field trips involved; minor transportation costs.

195 SPECIAL TOPICS: BIOLOGY FOR NON-MAJOR *1 to 3 credits*
Special courses for the non-major offered occasionally on a biology-related topic. Not available for credit toward the Biology or Natural Science Divisional major.

208,9 HUMAN ANATOMY AND PHYSIOLOGY *4 credits each*
Sequential. Prerequisite: one year of college chemistry. Study of structure and function of the human body. Laboratory.

211 GENERAL GENETICS *3 credits*
Prerequisite: 112. Principles of heredity, principles of genetics.

212 GENETICS LABORATORY *1 credit*
Prerequisite or corequisite: 211. Laboratory experiments in genetics with emphasis on scientific method; techniques in molecular biology.

217 GENERAL ECOLOGY *3 credits*
Prerequisite: 112. Study of interrelationships between organisms and environment.

264 ANATOMY AND PHYSIOLOGY OF SPEECH AND HEARING *3 credits*
Prerequisite: 265. Study of anatomy and physiology of organs directly and indirectly responsible for sound perception and production of speech. Laboratory. Field trips involved; minor transportation costs.

265 INTRODUCTORY HUMAN PHYSIOLOGY *4 credits*
Study of physiological processes in human body, particularly at organ-systems level. Not open to preprofessional majors. Laboratory.

290/291 HEALTH-CARE DELIVERY SYSTEMS *1 credit each*
Health-care principles and practices. A continuation of 190,1 for a second year student in NEOUCOM six-year BS/MD program. Graded credit/noncredit. Not available toward credit as major in biological sciences. Field trips involved; minor transportation costs.

295 SPECIAL TOPICS: BIOLOGY FOR NON-MAJOR *1 to 3 credits*
Prerequisite: permission. Special courses offered occasionally in areas where no formal course exists. Maximum of six credits of 3100:295/495 will apply toward major.

311 CELL BIOLOGY *3 credits*
Prerequisites: 211. Study of structure and function of cells using microbial and animal cells for demonstration of common tenets.

315 EVOLUTIONARY BIOLOGY DISCUSSION *1 credit*
Prerequisite: 211. Informal discussions of various aspects of organic evolution of general or special interest.

316 EVOLUTIONARY BIOLOGY *3 credits*
Prerequisite: 211. History of evolutionary thought; Darwinian and post-Darwinian concepts, mechanisms of evolution; molecular evolution; evolutionary history of plants and animals.

331 MICROBIOLOGY *4 credits*
Prerequisites: 112, 211 and prerequisite or corequisite 3150:263. Survey of protists with emphasis on the bacteria: their morphology, cultivation and chemical characteristics. Relationships of microorganisms to humans and their environment. Laboratory.

342 FLORA AND TAXONOMY *3 credits*
Prerequisite: 112. Origins of Ohio flora, ecological and evolutionary relationships. Survey of local flowering plant families, collection and identification of flora. Laboratory and field trips.

365 HISTOLOGY I *3 credits*
Prerequisite: 311. Cellular structure of organs in relation to their functional activity, life history, comparative development. Laboratory.

366 HISTOLOGY II *3 credits*
Prerequisite: 365. Microscopic study of animal tissue preparations and histochemical stains; emphasis on functional differences. Laboratory.

381 HUMAN GENETICS *2 credits*
Prerequisite: 112. Principles of genetics in the human, immunogenetics, mutation, genetics of population, selection and eugenics. Not open to biology majors.

392 BIOLOGY OF AGING *3 credits*
Prerequisite: 112 or 265 or equivalent. Introduction to anatomical and physiological changes occurring in organ systems of humans during aging process; cellular basis for these changes; biological theories of aging.

400/500 FOOD PLANTS *2 credits*
Prerequisite: 112 or permission of instructor. A survey of the plants used for human food, including their history, structure, uses.

421/521 TROPICAL FIELD BIOLOGY *4 credits*
Prerequisites: 111/112 or equivalent. Ecology of coral reefs, tide pools, mangroves, intertidal zones, terrestrial flora and fauna, island biogeography. Taught at a field station in the tropics. Field trips involved; minor transportation costs.

422/522 CONSERVATION OF BIOLOGICAL RESOURCES *4 credits*
Prerequisite: 217 or permission. Basic principles for management of plant and animal resources and natural areas. Political, economic and social aspects of resource management. Laboratory. Field trips involved; minor transportation costs.

424/524 FRESHWATER ECOLOGY *3 credits*
Prerequisite: 217. Field, laboratory study of lake ecosystems. Species composition of selected biotic communities, community energetics, nutrient cycling. Limnological survey of a local lake. Laboratory. Field trips involved; minor transportation costs.

425/525 FRESHWATER ECOLOGY FIELD AND LABORATORY STUDIES *3 credits*
Prerequisite: 217 or permission of instructor. Field and laboratory studies of local lakes, ponds, and reservoirs. Collection, identification, and ecology of aquatic plants and animals, especially phytoplankton, zooplankton and benthic organisms.

426/526 APPLIED AQUATIC ECOLOGY *4 credits*
Prerequisite: permission. Biological methods for assessing quality of natural waterways. Emphasis given to use of benthic invertebrate as indices of water quality. Laboratory. Field trips involved; minor transportation costs.

428/528 BIOLOGY OF BEHAVIOR *2 credits*
Prerequisites: 211, 217 and 316. Biological basis of behavior: ethological theory; function, causation, evolution and adaptiveness of behavior. May be taken without 429/529.

429/529 BIOLOGY OF BEHAVIOR LABORATORY *2 credits*
Prerequisites or corequisites: 428/528 and permission of instructor. Individualized, directed study to provide the student with firsthand experience in observing, describing and interpreting animal behavior.

432/532 ADVANCED GENERAL BACTERIOLOGY *4 credits*
Prerequisite: 331. Study of the groups of bacteria involved in the production of food or chemicals, those found in soil and water and those involved in microbiol biogenochemical cycles. Laboratory.

433/533 PATHOGENIC BACTERIOLOGY *4 credits*
Prerequisite: 331. Study of major groups of bacteria which produce infections in humans. Biochemical properties of microorganisms which engender virulence and nature of host resistance. Laboratory.

435/535 VIROLOGY *4 credits*
Prerequisite: 331. Physical, chemical and biological properties of viruses including mechanisms of infection, genetics and tumor formation; methods of cultivation and identification. Laboratory.

437/537 IMMUNOLOGY *4 credits*
Prerequisite: 211 and 331; recommended: 433. Nature of antigens, antibody response and antigen-antibody reactions. Site and mechanism of antibody formations, hypersensitivity, immunologic tolerance and immune diseases considered. Laboratory.

440/540 MYCOLOGY *4 credits*
Prerequisite: 112. Structure, life history, classification of representative fungi with emphasis on the importance of fungi to humans. Laboratory.

441/541 PLANT DEVELOPMENT *4 credits*
Prerequisites: 112 and one year of organic chemistry. Embryology and morphogenesis of plants in relation to physical, chemical, genetic and spatial factors. Laboratory.

442/542 PLANT ANATOMY *3 credits*
Prerequisite: 112. Structure and development of cells, tissues, organs and organ systems of seed plants. Laboratory.

443/543 PHYCOLOGY *4 credits*
Prerequisite: 112. Examination of the major groups of algae with emphasis on life histories and their relationship to algal form and structure. Laboratory.

445/545 PLANT MORPHOLOGY *4 credits*
Prerequisite: 112. Structure, reproduction, life cycles, ecology, evolution, economic significance of land plants-bryophytes, club-mosses, whisk ferns, horsetails, ferns, seed plants. Laboratory. Field trips involved; minor transportation costs.

447/547 PLANT PHYSIOLOGY *3 credits*
Prerequisites: 112 and one year of organic chemistry. Water, soil and mineral requirements of plants, and their metabolism, growth and response to internal and external stimuli. Laboratory.

448/548 ECONOMIC BOTANY *2 credits*
Prerequisite: 111/112 or instructor's permission. A survey of economically important plants and plant products, excluding food plants. Includes wood and fiber, dyes, drugs, resins, latex and other extractives.

451/551 GENERAL ENTOMOLOGY *4 credits*
Prerequisites: 112, 217. Structure, physiology, life cycles, economic importance and characteristics of orders and major families of insects. Laboratories parallel lectures.

453/553 INVERTEBRATE ZOOLOGY *4 credits*
Prerequisites: 112, 217. Invertebrate groups, their classification, functional morphology, adaptive radiation and life history. A phylogenetic approach is used. Laboratories parallel lectures.

454/554 PARASITOLOGY *4 credits*
Prerequisites: 112, 3150:201. Principles of parasitism; host parasite interactions; important human and veterinary parasitic diseases; and control measures. Laboratories parallel lectures.

456/556 ORNITHOLOGY *4 credits*
Prerequisite: 112. Introduction to biology of birds: classification, anatomy, physiology, behavior, ecology, evolution, natural history and field identification. Laboratory and field trips.

458/558 VERTEBRATE ZOOLOGY *4 credits*
Prerequisite: 316 or permission. Biology of vertebrates, except birds evolution, ecology, behavior, systematics and anatomy. Laboratory with field trips.

461,2/561,2 HUMAN PHYSIOLOGY *4 credits each*
Prerequisite: senior or graduate standing. Detailed study of function of the human body with special emphasis on neuromuscular, cardiovascular, respiratory, renal and endocrine physiology. Laboratory.

464/564 GENERAL AND COMPARATIVE PHYSIOLOGY *4 credits*
Prerequisites: 112 and one year of organic chemistry. Study of cellular, osmoregulatory, respiratory, cardiovascular, endocrine and neural mechanisms involved in understanding physiology of variety of invertebrate and vertebrate animals. Laboratory.

465/565 ADVANCED CARDIOVASCULAR PHYSIOLOGY *3 credits*
Prerequisite: 462 or 562 or permission. Study of biological mechanisms involved in heart attack, strokes, fluid balance, hypertension and heart disease. Controversial issues in each area will be examined and current research presented.

466/566 VERTEBRATE EMBROLOGY *4 credits*
Prerequisite: 112. Designed to introduce the process of vertebrate development. Lecture focuses on human development. Lecture and laboratory work include descriptive and experimental embryology.

467/567 COMPARATIVE VERTEBRATE MORPHOLOGY *4 credits*
Prerequisite: 112. An introduction to the comparative morphology of major vertebrates. The laboratories consist of dissections of representative vertebrates.

468/568 THE PHYSIOLOGY OF REPRODUCTION *3 credits*
Prerequisite: 462/562 or permission. Study of the physiological mechanisms of reproduction throughout the animal kingdom with special emphasis upon mammalian endocrinological control. Controversial issues in the field will be examined and current research presented.

469/569 RESPIRATORY PHYSIOLOGY *3 credits*
Prerequisites: 462/562 or 464/564 or permission. Study of mechanisms determining gas exchange including mechanics, ventilation, blood flow, diffusion, and control systems. Emphasis is given to normal human lung function. (Clinical aspects are not considered in detail.)

470/570 LAB ANIMAL REGULATIONS *1 credit*
Required of anyone working with animals, and covers government regulations, care of animals and a lab to teach basic animal handling and measurement techniques.

471/571 PHYSIOLOGICAL GENETICS *4 credits*
Prerequisite: 211 or equivalent; 462/562 or equivalent; or permission of instructor. The integrative study of how genetics and physiology influence complex systems from molecular to behavioral in plants and animals. Laboratory.

472/572 BIOLOGICAL MECHANISMS OF STRESS *3 credits*
Prerequisite: 462/562 or equivalent or permission of instructor. Study of mechanisms for molecular to behavioral of how stress influences body systems and signals. The latest research and experimental issues are discussed.

480/580 MOLECULAR BIOLOGY *3 credits*
Prerequisite: 211 and 311. Fundamentals of molecular biology, including recombinant DNA technology, applications in biotechnology, medicine, and genetic engineering. Mechanisms of gene regulation.

481/581 ADVANCED GENETICS *3 credits*
Prerequisite: 211. Nature of the gene; genetic codes; hereditary determinants; mutagenesis and genes in population. Lecture and seminar.

484/584 PHARMACOLOGY *3 credits*
Prerequisite: 311 or 209 or permission of instructor. Interactions of drugs and living systems with emphasis on absorption, mechanisms of action, biotransformation and elimination. Clinical aspects not considered in detail.

485/585 CELL PHYSIOLOGY *4 credits*
Prerequisite: 311. Explores molecular and biochemical aspects of energy metabolism, inter and intracellular signaling, growth and death of cells. Emphasizes up-to-date scientific literature and techniques. Laboratory.

494/594 WORKSHOP IN BIOLOGY *1-3 credits*
(May be repeated) Prerequisite: permission of instructor. Group studies of special topics in biology. May not be used to meet undergraduate or graduate major requirements in biology. May be used for elective credit only.

495 SPECIAL TOPICS: BIOLOGY *1-3 credits*
Prerequisite: permission. Special courses offered occasionally in areas where no formal course exists. Maximum of six credits of 3100:295/495 will apply toward major.

497,8/597,8 BIOLOGICAL PROBLEMS *1-2 credits each*
Prerequisite: permission. Honors-level work, usually consisting of laboratory investigations. A maximum of 4 credits may apply toward the major degree requirements.

499 SENIOR HONORS PROGRAM IN BIOLOGY *1-3 credits*
(May be repeated for a total of five credits) Prerequisites: senior standing in Honors Program and approval of honors preceptor. Open only to biology and natural sciences divisional majors in Honors Program. Independent study leading to completion of approved senior honors.

MEDICAL TECHNOLOGY

3120:

401 SPECIAL TOPICS LABORATORY: MANAGEMENT, EDUCATION AND SAFETY *1-4 credits*
Seminars, lectures, workshops in medical technology not included in formal clinical courses. Minimum one credit required for graduation.

410 CLINICAL ANALYSIS OF URINE AND OTHER BODY FLUIDS I *1 credit*
Physiology of renal system; theory of renal functions in health and disease states. Theory of other fluid systems in diagnosis of disease.

411 CLINICAL ANALYSIS OF URINE AND OTHER BODY FLUIDS II PRACTICUM *1 credit*
Renal function tests to include chemical and microscopic examination of urine. Methods of detection of chemical and cellular elements of other body fluids.

420 CLINICAL CHEMISTRY AND BIOCHEMISTRY I *4 credits*
Concepts of clinical biochemistry; identification and quantification of specific chemical substances in body fluids in normal and disease states; principles of instrumentation and quality control.

421 CLINICAL CHEMISTRY AND BIOCHEMISTRY II PRACTICUM *4 credits*
Clinical application by various analytical techniques; clinical correlation of results with disease states.

430 CLINICAL HEMATOLOGY I *2 credits*
Theory of blood cell formation; identification of blood and bone marrow cells; differentiation of erythrocytes, leukocytes, morphology.

431 CLINICAL HEMATOLOGY II PRACTICUM *2 credits*
Clinical application and practice of blood cell mounting procedures using automated and manual techniques.

432 CLINICAL COAGULATION *1 credit*
Theory of coagulation mechanisms and their relationship to disease states. Emphasis on identification of coagulation deficiencies and abnormalities.

440 CLINICAL IMMUNOHEMATOLOGY I *2 credits*
Theory of principles of immunology applied to blood grouping, cross matching; blood components; transfusion; blood collection, processing and preservation.

441 CLINICAL IMMUNOHEMATOLOGY II PRACTICUM *2 credits*
Clinical application of theory; cross matching; blood donors; blood bank management.

450 CLINICAL IMMUNOLOGY I *1 credit*
Antigens and antibodies and their interaction in disease states.

451 CLINICAL IMMUNOLOGY II PRACTICUM *1 credit*
Qualitative and quantitative serological laboratory procedures in immunology.

460 CLINICAL MICROBIOLOGY I *4 credits*
Theory of diagnosis of medical microbiology with emphasis on pathogenic bacteria and their relationship to disease.

461 CLINICAL MICROBIOLOGY II PRACTICUM *4 credits*
Isolation and identification of pathogenic bacteria, media making, sensitivity and antimicrobial agents, principles of sterilization and asepsis.

462 CLINICAL MYCOLOGY *1 credit*
Study of pathogenic fungi, basic methods of cultivation and identification, treatment and safety precautions.

463 CLINICAL PARASITOLOGY *1 credit*
Study of parasites common to humans, life cycles, and relationship to humans, procedure for handling and examining, identification by morphological characteristics.

CYTOTECHNOLOGY
3130:

401 INTRODUCTION TO CYTOLOGY *1 credit*
A brief course in which by means of lecture and demonstration the student becomes familiar with the cytotechnologist's role and with cytology laboratory. Areas covered include historical background of clinical cytology, microscopy and basic histology.

410 CYTOPREPARATION *2 credits*
Combined lecture and laboratory of different cytologic techniques, stain preparation, staining procedures, mounting and cover slipping of specimens. Also included are pertinent laboratory measurements, record keeping and safety measures for cytopreparation laboratory.

411 GYNECOLOGIC CYTOPATHOLOGY *5 credits*
Anatomy, histology and cellular morphology of female reproductive system. Study of disease, processes and endocrinopathies, inflammation and benign lesions. Stressed are premalignant lesions of cervix and endometrium, as well as malignant neoplasms and their cytologic characteristics. A study of extrauterine and metastatic tumors is included.

412 GENITO-URINARY CYTOPATHOLOGY *3 credits*
Study of anatomy, histology, pertinent physiology and cellular morphology of kidneys, ureters, bladder and lower urinary tract. Emphasis on recognition of cancer cells and various benign pathologic conditions in the urinary tract by microscopic studies of urine sediment.

413 RESPIRATORY CYTOPATHOLOGY *3 credits*
Study of disease processes as related to cytology of respiratory tract. Covers general anatomy, normal histology and cytology, inflammatory and mycotic diseases, benign proliferative disorders and malignant neoplasms with emphasis on their associated cell morphology.

414 BODY FLUIDS CYTOPATHOLOGY *4 credits*
Anatomy, histology and clinical aspects of benign and malignant diseases involving body cavities, central nervous system and synovial cavities are presented. Emphasis is placed in cellular morphology of primary and metastic tumors and in different cytodiagnosis.

415 CYTOPATHOLOGY OF THE ALIMENTARY TRACT *3 credits*
Anatomy, histology and pertinent physiology of the oral cavity, esophagus, stomach, small and large intestines, rectum and anal canal. The biologic behavior, clinical presentation and cellular morphology of various benign epithelial lesions and malignant tumors emphasized.

416 BREAST SECRETION AND NEEDLE ASPIRATION SMEARS *2 credits*
The study of anatomy and histology of body organs subject to needle aspiration biopsy with emphasis on cellular morphology of both benign and malignant tumors.

417 CYTOGENETICS 1 credit
Basic genetic principles are taught to lay foundation for study of chromosomal aberrations and their pathological manifestations. Include techniques of sex chromatin determination, culturing and harvesting of blood cells, preparation of metaphase plate and preparation of karyotypes.

418 CYTOLOGY SEMINARS AND RESEARCH *3 credits*
Collections of American Society of Cytology Seminars are presented. Current cytology cases from within department are also utilized. Based on projected slides and pertinent clinical history, a student formulates opinions on each case. Each case presented is discussed in depth by student with faculty moderator. A term paper on an independently selected topic in cytology is to be submitted and presented to the class and faculty.

420 CYTOLOGY PRACTICUM *5 credits*
Involves five hours of daily prescreening of routine gynecologic and nongynecologic specimens. Abnormal cases are reviewed with a proctor who is a registered cytotechnologist or pathologist. Correlation of clinical data, follow up of patients and proper reporting is emphasized. The goal is to be able to screen accurately at least 40 cases of gynecologic specimens per day.

CHEMISTRY
3150:

100 CHEMISTRY AND SOCIETY *3 credits*
Qualitative introduction to chemistry using current world problems and commercial products, such as the ozone layer, nuclear fission, polymers and drugs, to introduce chemical principles.

110 INTRODUCTION TO GENERAL, ORGANIC AND BIOCHEMISTRY I (LECTURE) *3 credits*
Sequential. Introduction to principles of chemistry, fundamentals of inorganic, organic and biochemistry. Structure and chemistry of carbohydrates, lipids, proteins; biochemistry of enzymes, metabolism, radiation.

111 INTRODUCTION TO GENERAL, ORGANIC AND BIOCHEMISTRY I (LABORATORY) *1 credit*
Prerequisite/Corequisite: 3150:110. Sequential. Laboratory course applying principles of chemistry and fundamentals of inorganic, organic and biochemistry.

112 INTRODUCTION TO GENERAL, ORGANIC AND BIOCHEMISTRY II (LECTURE) *3 credits*
Prerequisite: 110. Sequential. Introduction to principles of chemistry, fundamentals of inorganic, organic and biochemistry. Structure and chemistry of carbohydrates, lipids, proteins; biochemistry of enzymes, metabolism, radiation.

113 INTRODUCTION TO GENERAL, ORGANIC AND BIOCHEMISTRY II (LABORATORY) *1 credit*
Prerequisite/Corequisite: 3150:112. Sequential. Laboratory course applying principles of chemistry and fundamentals of inorganic, organic and biochemistry.

151 PRINCIPLES OF CHEMISTRY I *3 credits*
Introduction to basic facts and principles of chemistry including atomic and molecular structure, states of matter and thermodynamics. For chemistry majors, pre-medical students and most other science majors. Discussion (day sections).

152 PRINCIPLES OF CHEMISTRY LABORATORY *1 credit*
Pre/Corequisite: 151, Laboratory course applying principles of thermodynamics, chemical analysis and laboratory practice.

153 PRINCIPLES OF CHEMISTRY II *3 credits*
Prerequisite: 151, 152. Continuation of 151, 152, including aqueous solution theory, chemical kinetics, equilibrium, electrochemistry and nuclear chemistry. For chemistry majors, premedical students and most other science majors. Discussion (day sections).

154 QUALITATIVE ANALYSIS *2 credits*
Corequisite: 153. Laboratory course applying principles of chemical equilibrium to inorganic qualitative analysis.

201,2 ORGANIC CHEMISTRY AND BIOCHEMISTRY I, II *4 credits each*
Sequential. Prerequisite: 153. Designed especially for students in medical technology. Principles of organic chemistry with emphasis on biological systems. Laboratory.

203 NUTRITIONAL BIOCHEMISTRY *3 credits*
Prerequisite: 112. Catabolic processes for energy production and nutritional requirements in liver, heart and skeletal muscle and adipose tissue. Biochemistry of diabetes, heart disease, obesity and atherosclerosis. May not be used to meet undergraduate major requirements in chemistry.

263,4 ORGANIC CHEMISTRY LECTURE I, II *3 credits each*
Sequential. Prerequisite: 154 or permission. Structure and reactions of organic compounds, mechanism of reactions.

265,6 ORGANIC CHEMISTRY LABORATORY I, II *2 credits each*
Sequential. Laboratory experiments to develop techniques in organic chemistry and illustrate principles. Discussion.

301 BASIC BIOCHEMISTRY *3 credits*
Prerequisite: 264. A one-semester, basic course in biochemistry covering structure/reactivity relationships of biological molecules and the metabolism of carbohydrates, lipids, amino acids and nucleic acids.

313,4 PHYSICAL CHEMISTRY LECTURE I, II *3 credits each*
Sequential. Prerequisites: 264, 3450:235, 3650:292 or permission of instructor. Gases, thermo dynamics, thermochemistry, solutions, dilute solutions, chemical equilibrium, phase rule, chemical kinetics, electrochemistry, electrolytic equilibria, atomic and molecular structure.

380 ADVANCED CHEMISTRY LABORATORY I *2 credits*
Corequisite: 313 and 423 or permission. Integrated laboratory experience covering the areas of quantitative analysis, physical chemistry, instrumental techniques, and inorganic chemistry.

381 ADVANCED CHEMISTRY LABORATORY II *2 credits*
Prerequisite 380; corequisite: 314 and 424 or permission. Integrated laboratory experience covering the areas of quantitative analysis, physical chemistry, instrumental techniques,and inorganic chemistry.

401/501 BIOCHEMISTRY LECTURE I *3 credits*
Prerequisite: 264. Biochemistry of amino acids, carbohydrates, lipids, and nucleic acids: structure/function relations. Enzymes as catalysts: kinetics and regulation. Cofactors.

402/502 BIOCHEMISTRY LECTURE II *3 credits*
Prerequisite: 401/501. Overview of metabolism; thermodynamics; carbohydrate, fatty acid, amino acid, and nucleoside anabolism and catabolism; hormonal control of metabolism. Photosynthesis.

423 ANALYTICAL CHEMISTRY I *3 credits*
Prerequisite: 264 or permission. Theoretical principles of quantitative and instrumental analysis.

424 ANALYTICAL CHEMISTRY II *3 credits*
Prerequisite 313 and 423 or permission. Instrumental analysis with emphasis on newer analytical tools and methods.

463 ADVANCED ORGANIC CHEMISTRY *3 credits*
Prerequisites: 264, 304 or 314 or permission. Introduction to study of mechanisms of organic reactions.

472/572 ADVANCED INORGANIC CHEMISTRY *3 credits*
Prerequisite: 314. Concepts of atomic structure integrated in systematic classification of elements. Periodic table. Chemistry of the representative elements. Transition elements including coordination compounds, organometallics and metal carbonyls.

480 ADVANCED CHEMISTRY LABORATORY III *2 credits*
Prerequisite 381; corequisite 472 or permission. Integrated laboratory experience covering the areas of quantitative analysis, physical chemistry, instrumental techniques, and inorganic chemistry.

481 ADVANCED CHEMISTRY LABORATORY IV *2 credits*
Prerequisite 480 and 472 or permission. Integrated laboratory experience covering the areas of quantitative analysis, physical chemistry, instrumental techniques, and inorganic chemistry.

490/590 WORKSHOP IN CHEMISTRY *1-3 credits*
(May be repeated) Group studies of special topics in chemistry. May not be used to meet undergraduate or graduate major requirements in chemistry.

497 HONORS PROJECT IN CHEMISTRY *2 credits*
(May be repeated for a total of eight credits) Prerequisites: junior or senior standing in Honors Program and permission of department honors preceptor. Independent research leading to completion of honors thesis under guidance of honors project adviser.

498 SPECIAL TOPICS: CHEMISTRY *1-3 credits*

499 RESEARCH PROBLEMS *1-2 credits*
(May be repeated for a total of eight credits) Prerequisite: permission. Assignment of special problems to student, designed as an introduction to research problems.

CLASSICS

3200:

190 THE MAKING OF ENGLISH WORDS FROM LATIN AND GREEK ELEMENTS *3 credits*
The influence of Latin and Greek on English vocabulary with some attention to the use of these languages in the scientific and legal fields. No foreign language is necessary.

220 INTRODUCTION TO THE ANCIENT WORLD *3 credits*
Prerequisite: 3400:210. Introduction to the civilizations of the Near East, Greece, and Rome, their cultural influences upon each other and their legacy to Europe.

230 SPORTS AND SOCIETY IN ANCIENT GREECE AND ROME *3 credits*
Greek and Roman sports, games and festivals, from the Olympics to gladiatorial games as social phenomena; multimedia survey of the archaeology of ancient sport.

289 MYTHOLOGY OF ANCIENT GREECE *3 credits*
Prerequisite: 3400:210. Myth, legend and folktale in ancient Greece, with some attention to religion (Olympian deities, Orphism, etc.) and the transmission of Greek myth to Rome and the West. No foreign language necessary.

313 ARCHAEOLOGY OF GREECE *3 credits*
The ruins and monuments of Greece; history reconstructed by examination of the material remains. No foreign language necessary. Required of majors.

314 ARCHAEOLOGY OF ROME *3 credits*
The ruins and monuments of Rome; history reconstructed by examination of the material remains. No foreign language necessary. Required of majors.

361 THE LITERATURE OF GREECE *3 credits*
Prerequisite: 3400:210. Major writers of ancient Greece and their influence on later European literature. No foreign language necessary. Required of majors.

362 THE LITERATURE OF ROME *3 credits*
Major writers of ancient Rome and their influence on later European literature. No foreign language necessary. Required of majors.

401,2/501,2 EGYPTOLOGY I AND II *3 credits each*
The history and antiquities of ancient Egypt.

404,5/504,5 ASSYRIOLOGY *3 credits each*
(May be repeated for credit with another cuneiform language) Prerequisite: permission of instructor. The Akkadian language.

407,8/507,8 ANCIENT NEAR EASTERN ARCHAEOLOGY *3 credits each*
(May be repeated for credit with change of subject) Prerequisite: permission of instructor. Palestine, Mesopotamia, Asia Minor, adjacent lands; Old Testament in light of material evidence.

450/550 SELECTED TOPICS IN ANCIENT CULTURES *3 credits*
(May be repeated with change of subject) Varied offerings in literature, art and archaeology and religion. No foreign language necessary.

480/580 READING AND RESEARCH IN CLASSICAL STUDIES *1-3 credits*
Prerequisite: permission of instructor. Directed reading and research for individual and small group study in any recognized area of classical studies.

490/590 WORKSHOP IN CLASSICS *1-3 credits*
(May be repeated with change in topic). Group studies of special topics in Classics. Cannot be used to fulfill undergraduate major requirements in Classics; for elective credit only.

497,8/597,8 READING AND RESEARCH IN THE ANCIENT NEAR EAST *1-3 credits*
Prerequisite: permission of instructor. Advanced work in various aspects of Ancient Near Eastern Studies (Archaeology, Assyriology, Egyptology, etc.).

499 HONORS PROJECT IN CLASSICS *1-3 credits*
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors Program and permission. Independent study leading to completion of a senior honors thesis under the supervision of a member of the Department of Classics.

GREEK

3210:

121,2 BEGINNING GREEK I AND II *4 credits each*
Sequential. Standard Attic Greek of classical times.

223,4 INTERMEDIATE GREEK *3 credits each*
Prerequisites: 121, 122. A survey of readings of the less difficult authors such as Homer, certain dialogues of Plato, Herodotus, Xenophon, New Testament or the like.

303,4 ADVANCED GREEK *3 credits each*
(May be repeated with a change of subject) Tragedy, comedy, philosophy, history, lyric poetry, prose composition or epigraphy.

497,8/597,8 GREEK READING AND RESEARCH *3 credits each*
(May be repeated for credit with change of subject) Prerequisite: permission of instructor. Homer, Sophocles, Plato or the like.

LATIN

3220:

121,2 BEGINNING LATIN I AND II *4 credits each*
Sequential. Reading, writing and translation; oral and written drill; analysis of grammatical structure and English vocabulary building.

223,4 INTERMEDIATE LATIN *3 credits each*
Prerequisites: 121, 122. A survey of readings of the less difficult authors such as Pliny, Caesar, Plautus, Cicero's Letters or equivalent material.

303,4 ADVANCED LATIN *3 credits each*
(May be repeated for credit with change of subject) Prerequisites: 223, 224 or equivalent. Satirists, dramatists, philosophical, religious writers, lyric and elegiac poets, medieval writers.

497,8/597,8 LATIN READING AND RESEARCH *3 credits each*
(May be repeated for credit with change of subject) Prerequisite: permission of instructor. Generally Latin epigraphy, prose composition or philology; numismatics or certain other archaeological topics may be offered.

ECONOMICS

3250:

100 INTRODUCTION TO ECONOMICS *3 credits*
May not be substituted for 200, 201, 244. Economics primarily concerned in a broad social science context. Adequate amount of basic theory introduced. Cannot be used to satisfy major or minor requirements in economics.

200 PRINCIPLES OF MICROECONOMICS *3 credits*
Analysis of behavior of the firm and household, and their impact on resource allocation, output and market price. No credit if 244 already taken.

201 PRINCIPLES OF MACROECONOMICS *3 credits*
Prerequisite: 200. Study of the economic factors which affect the price level, national income, employment, economic growth. No credit if 244 already taken.

244 INTRODUCTION TO ECONOMIC ANALYSIS *3 credits*
Recommended for engineering and mathematical science majors. Intensive introduction to analysis of modern industrial society and formulation of economic policy. Structure of economic theory and its relation to economic reality. No credit to a student who has completed 200, 201.

248 CONSUMER ECONOMICS *3 credits*
Spending habits of American consumers; influences affecting their spending decisions, personal finance, budget planning, saving programs, installment buying, insurance, investments, housing finance.

330 LABOR PROBLEMS *3 credits*
Prerequisites: 200, 201, or 244. Labor economics, principles and public policy. Study of structure of labor market and impact unions have on labor management relations.

333 LABOR ECONOMICS *3 credits*
Prerequisite: 200 or 244. Theoretical tools used in analysis of problems of labor in any modern economic system. Emphasis given to examination of determinants of demand for and supply of labor.

360 INDUSTRIAL ORGANIZATION AND PUBLIC POLICY *3 credits*
Prerequisites: 200 or 244. Role of industrial structure and firm conduct in performance of industry and way in which antitrust policy is designed to provide remedies where performance is unsatisfactory.

380 MONEY AND BANKING *3 credits*
Prerequisite: 201. Institutions of money, banking and credit, monetary expansion and contraction, public policies affecting this process, development of our money and banking system.

385 ECONOMICS OF NATURAL RESOURCES AND THE ENVIRONMENT *3 credits*
Prerequisites: 100 or 200 or 244 or permission. Introduction to economic analysis of use of natural resources and economics of environment. Problems of water and air pollution, natural environments, natural resource scarcity, conservation, economic growth.

389 ECONOMICS OF ENERGY *3 credits*
Prerequisites: 200, 201 or permission of the instructor. Frame of economic theory is applied to analyze the energy sector. Theoretical issues relating energy with inflation, economic growth and public policy will also be examined.

400 INTERMEDIATE MACROECONOMICS *3 credits*
Prerequisites: 201 and 3450:145 or equivalent. Changes in national income, production, employment, price levels, long-range economic growth, short-term fluctuations of economic activity.

405 ECONOMICS OF THE PUBLIC SECTOR *3 credits*
Prerequisites: 200 and 201, or 244. Considers nature and scope of government activity, rationale for government intervention, problems of public choice, taxation and revenue-raising, cost-benefit analysis, program development and evaluation.

406/506 STATE AND LOCAL PUBLIC FINANCE *3 credits*
Prerequisite: 410; recommended: 405. Examines economic rationale and problems for provision of goods and services by different governmental units. Considers alternative revenue sources and special topics.

410 INTERMEDIATE MICROECONOMICS *3 credits*
Prerequisites: 200 or 244, and 3450:145 or equivalent. Advanced analysis of consumer demand, production costs, market structures, determinants of factor income.

420 MATHEMATICAL ECONOMICS I *3 credits*
Prerequisites: 200 or 244 and 3450:215 or permission of instructor. Mathematical treatment of economic theory in framework of comparative statics. Emphasis on theory of the firm, theory of consumer behavior, general equilibrium analysis and welfare analysis.

421 MATHEMATICAL ECONOMICS II *3 credits*
Prerequisite: 420 or permission of instructor. Use of calculus and linear algebra to dynamic economic analysis; solution techniques; some significant dynamic models from literature.

426/526 ECONOMETRIC METHODS AND APPLICATIONS *3 credits*
Prerequisites: 3470:460 or 3470:461 or the equivalent or permission of the instructor. Application of statistical methods in economics and other social sciences. Topics include intervasl estimation, hypothesis testing, regression analysis and forecasting. Use of computer is intensive.

427/527 ECONOMIC FORECASTING *3 credits*
Prerequisite: 3470:460,461 or permission of instructor. Study of methods for building, identifying, fitting and checking dynamic economic models and the use of these models for forecasting. Emphasis is on the application of available computer software systems.

430/530 LABOR MARKET POLICY *3 credits*
Prerequisites: 330 or 333. Intensive study of current labor market policy issues (e.g., discrimination, poverty, the changing industrial structure, and the economics of education).

431 LABOR AND THE GOVERNMENT *3 credits*
Prerequisite: 330. Development of public policy for control of industrial relations, from judicial control of 19th Century to statutory and administrative controls of World War II and postwar periods.

432 THE ECONOMICS AND PRACTICE OF COLLECTIVE BARGAINING *3 credits*
Prerequisite: 200 or 244. Principles and organization of collective bargaining, collective bargaining agreements, issues presented in labor disputes and settlements, union status and security, wage scales, technological change, production standards, etc.

435/535 THE DEVELOPMENT OF AMERICAN CORPORATE STRUCTURE *3 credits*
Traces evolution of American corporate structure from late 19th Century to present. Explains and analyzes changing dimensions of corporate structure and response of government. Case studies analyzed.

440/540 SPECIAL TOPICS: ECONOMICS *3 credits*
Prerequisite: permission. Opportunity to study special topics and current issues in economics.

450/550 COMPARATIVE ECONOMIC SYSTEMS *3 credits*
Prerequisites: 200 and 201 or 244 or permission of instructor. Systems of economic organization, ranging from the theoretical extreme of a perfectly free market economy to the socialist varieties. Historical evolution of economic systems covering problems in theory and practice.

460/560 ECONOMIC DEVELOPMENT AND PLANNING FOR UNDERDEVELOPED COUNTRIES *3 credits*
Prerequisites: 200 and 201, or 244. Basic problems in economic development. Theories of development. Government planning for development. Trade and development of underdeveloped countries. Credit not available for students with credit for 3250:664.

461/561 PRINCIPLES OF INTERNATIONAL ECONOMICS *3 credits*
Prerequisites: 200 and 201, or 244. International trade and foreign exchange, policies of free and controlled trade, international monetary problems.

475/575 DEVELOPMENT OF ECONOMIC THOUGHT *3 credits*
Prerequisites: 200 and 201, or 244. Evolution of theory and method, relation of ideas of economists contemporary to conditions.

481/581 MONETARY AND BANKING POLICY *3 credits*
Prerequisites: 380, 400. Control over currency and credit, policies of control by central banks and governments, United States Treasury and Federal Reserve System.

487/587 URBAN ECONOMICS: THEORY AND POLICY *3 credits*
Prerequisite: 200 and 201 or 244 or permission of instructor. Analysis of urban issues from an economic perspective. Emphasis on urban growth, land-use patterns, housing, income distribution, poverty and urban fiscal policy.

490 INDEPENDENT STUDY IN ECONOMICS *1-3 credits*
(May be repeated for a total of six credits) Prerequisite: permission of instructor. Independent study in economics under supervision and evaluation of selected faculty member.

491/591 WORKSHOP IN ECONOMICS *1-3 credits*
(May be repeated) Group studies of special topics in economics. May not be used to meet undergraduate or graduate major requirements in economics. May be used for elective credit only.

497 HONORS PROJECT *1-3 credits*
(May be repeated for a total of six credits) Prerequisite: senior standing in Honors Program. Individual senior honors thesis on a creative project relevant to economics, approved and supervised by faculty member of the department.

ENGLISH

3300:

111 ENGLISH COMPOSITION I *4 credits*
Extensive and varied experience in developing writing skills, with practice in expressive, reflective, and analytic forms of writing.

112 ENGLISH COMPOSITION II *3 credits*
Prerequisite: 111. Designed to develop skills in analyzing and writing persuasive arguments.

250 CLASSIC AND CONTEMPORARY LITERATURE *3 credits*
Prerequisites: 111 and 112 or their equivalents, and 3400:210, or permission of the instructor. Close reading and analysis of fiction, poetry, and drama from the evolving canon of American, British, and World literature. *This course fulfills the General Education Humanities Requirement. It cannot be used to meet requirements in English.*

251 TOPICS IN WORLD LITERATURE *3 credits*
Prerequisites: 111 and 112; and 3400:210 or permission of instructor. Close reading and analysis of various themes represented in world literatures, both ancient and modern. *This course fulfills the General Education Humanities Requirement. It cannot be used to meet requirements in English.*

252 SHAKESPEARE AND HIS WORLD *3 credits*
Prerequisites: 111 and 112 or their equivalents, and 3400:210. An introduction to the works of Shakespeare and their intellectual and social contexts. Each section "places" Shakespeare through compact readings of works by the playwright's contemporaries. *This course fulfills the General Education Humanities Requirement. It cannot be used to meet requirements in English.*

255 POPULAR FICTION *3 credits*
Prerequisites: 111 and 112 or their equivalents, and 3400:210. A close reading of types of popular fiction and how it reflects cultural attributes.

275 SPECIALIZED WRITING *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. (May be repeated for different topics, with permission) Principles and practice of style, structure and purpose in writing, with special applications to writing demands of a specific career area.

277 INTRODUCTION TO POETRY WRITING *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Practice in writing poems. Study of techniques in poetry, using contemporary poems as models, Class discussion of student work. Individual conferences with instructor to direct student's reading and writing.

278 INTRODUCTION TO FICTION WRITING *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Practice in writing short stories. Study of various techniques in fiction, using con temporary stories as models. Class discussion of student work. Individual conferences with instructor to direct student's reading and writing.

279 INTRODUCTION TO SCRIPT WRITING *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Practice in writing scripts. Study of various techniques in script writing, using contemporary models for study. Class discussion of student work. Individual conferences with instructor to direct student's reading and writing.

280 POETRY APPRECIATION *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Close reading of a wide selection of British and American poems with emphasis on dramatic situation, description, tone, analogical language, theme and meaning.

281 FICTION APPRECIATION *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, and 3400:210. Close reading of modern masters of short story and novel. *Fulfills the General Education Humanities Requirement.*

282 DRAMA APPRECIATION *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. (May be repeated for credit as a text or a film appreciation course) Close reading and analysis of a variety of plays.

283 FILM APPRECIATION *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Introduction to dramatic choices made by filmmakers in scripting, directing, editing and photographing narrative films; and qualities of reliable film reviews.

300 CRITICAL READING AND WRITING *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. An introduction to English studies, focusing on critical methods for reading and writing about literature, with attention to research skills and uses of computer technology.

301 ENGLISH LITERATURE I *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Studies in English literature from Old English to 1800, with emphasis upon specific representative works and upon the cultural and intellectual background which produced them. Literature to be read will include both major and minor poetry, prose and drama.

302 ENGLISH LITERATURE II *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Studies in English literature from 1800 to present. Emphasis will be given to cultural and intellectual backgrounds and to the development of various modes and genres.

315 SHAKESPEARE: THE EARLY PLAYS *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Introduction to early drama of Shakespeare with close reading of tragedies, histories and comedies. Includes explanatory lectures of both the plays and their backgrounds.

316 SHAKESPEARE: THE MATURE PLAYS *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Study of Shakespeare's plays after 1598, beginning with mature comedies. Concentration on major tragedies and romances.

341 AMERICAN LITERATURE I *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Historical survey of major and minor American writers to 1865.

342 AMERICAN LITERATURE II *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Readings in major and minor American writers from 1865 to present.

350 BLACK AMERICAN LITERATURE *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Survey of representative black American writers from the 19th Century to present, with particular attention to historical and social backgrounds.

354 FICTION OF THE SOUTH *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. A study of novels and short stories by major Southern authors such as Faulkner, O'Connor and Styron.

360 THE OLD TESTAMENT AS LITERATURE *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. History of Hebrews to 586 B.C., as revealed through epic, fiction, saga and poetry, viewed against background of the Oriental World.

361 THE NEW TESTAMENT AND APOCRYPHA AS LITERATURE *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. These two bodies of literature read with emphasis on form of gospel and epistle, and concept of apocalypse. Both are viewed against their historical and social backgrounds.

366 EUROPEAN BACKGROUNDS OF ENGLISH LITERATURE *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Representative continental texts from Homer to Cervantes, selected both for their excellence and for their important influence on English and American literature.

371 INTRODUCTION TO LINGUISTICS *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Scientific introduction to the study of written and spoken linguistic behavior in English. History of English, varieties of English, and acquisition of English also introduced.

376 LEGAL WRITING *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Broad range of topics on language and introduction to its scientific study. Topics include language origins and history, dialects, sound systems, syntax, semantics, animal language, writing systems and language universals,

377 ADVANCED POETRY WRITING *3 credits*
Prerequisites: 277, and 111 and 112 or their equivalents, or permission of the instructor. Advanced practice in writing poems, emphasis on shaping publishable works. Survey of market. Class discussion of student poems; individual conference with instructor.

378 ADVANCED FICTION WRITING *3 credits*
Prerequisites: 278, and 111 and 112 or their equivalents, or permission of the instructor. Advanced practice in writing short stories, emphasis on shaping publishable works. Survey of market. Class discussion of student stories; individual conference with instructor.

380 FILM CRITICISM *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Application of literary critical theory to the study of film.

382 CONTEMPORARY CANADIAN LITERATURE *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Aspects of Canadian literature distinguishing it from other literatures will be identified and analyzed to determine how literature shapes a sense of national identity.

386 WOMEN IN MODERN NOVELS *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Students will read various modern novels to increase their awareness of how these texts reflect, reinforce, but more often challenge traditional attitudes towards women, their places and circumstances.

389 SPECIAL TOPICS: LITERATURE AND LANGUAGE *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. (May be repeated for credit as different topics are offered). Traditional and nontraditional topics in English literature and language, supplementing course listed in this General Bulletin, generally constructed around theme, genre and language study.

390 PROFESSIONAL WRITING I *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Designed to help prepare student for a career as professional business writer. Stresses theory and practice of written and oral communication in business organization. Individual and group performance, relating to communication theories, concepts of semantics. Functional writing as well as special needs of business are illustrated by actual cases. Adapting style and organization is practiced.

391 PROFESSIONAL WRITING II *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Designed to help prepare student for a career as professional technical writer. Covers principles and practices concerning editing company technical communications, such as specifications, annual reports, promotional brochures for technical products, services, scientific abstracts, proposals. Also treats problems of adapting materials to formats, graphic display of technical information, adaptation of technical material to nontechnical reader.

392 INTERNSHIP IN ENGLISH *1-3 credits*
Prerequisite: Minimum GPA of 2.5, permission of the instructor. (May be repeated for a maximum of six credits.) Critical reading and writing focused on career applications of the discipline of English. May count up to three credit hours toward the English major..

399 THE GOTHIC IMAGINATION *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. A loosely chronological study of major British, American, and European authors in the Gothic tradition, from the 18th Century to the present. Attention will be paid to the literary conventions of Gothic fiction, to the "popular" nature of the literature and to its major themes/motifs.

400/500 ANGLO SAXON *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Studies in Old English language and Old English prose and poetry, including Beowulf.

403/503 DEVELOPMENT OF THE ARTHURIAN LEGEND *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Traces evolution of Arthurian materials from 540 to 1500 and beyond, with emphasis on characters, themes, events and treatments.

406/506 CHAUCER *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Close study of Chaucer's major works The Canterbury Tales and Troilus and Criseyde in Middle English.

407/507 MIDDLE ENGLISH LITERATURE *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Study of genres, topics, styles and writers of the Middle English literary works from 12th to 15th Centuries. Readings in Middle English.

412/512 SPENSER *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Close reading of major narrative and lyric poems and selections from the minor works, all studied in the context of Elizabethan aesthetic theory, learning and politics.

416/516 METAPHYSICAL POETS *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Selected 17th-Century British poets exclusive of John Donne. The course examines the particular styles and themes of the secular and sacred poets who wrote in the metaphysical mode. Particular emphasis is placed on Herbert, Crashaw, Vaughan, Traherne, Marvell, Cowley, Cleveland, Southwell and King.

421/521 SWIFT AND POPE *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. An intensive study of the major satires of Swift and Pope. Concentration on the rhetorical strategies of each author within the context of the shifting intellectual and cultural milieu at the end of the 17th and beginning of the 18th Centuries.

424/524 EARLY ENGLISH FICTION *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Development of English novel before 1830. Focus on works of Defoe, Richardson, Fielding, Smollett, Sterne, Austen and Scott.

425/525 STUDIES IN ROMANTICISM *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Literary, philosophical, psychological and social revolutions of romantic period as reflected in works of such major writers as Wordsworth, Byron and Keats.

430/530 VICTORIAN POETRY AND PROSE *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Poetry, prose of the late 19th Century, excluding fiction, with attention to Tennyson, Browning, Arnold, Carlyle, Ruskin and other major writers.

431/531 VICTORIAN FICTION *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Reading of at least five major novels of Victorian era, of varying length, by Emily Bronte, Dickens, Eliot, Thackeray and Hardy. Characterization, theme and attitude toward life emphasized.

434/534 CHARLES DICKENS *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Growth of Dickens as a novelist, with attention to the social and political backgrounds of the novels and changes in their structure and treatment of character.

435/535 20TH CENTURY BRITISH POETRY *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Concentrated study of major poems of Yeats, Eliot and Auden, with attention also to Hardy, Housman, Spender, C. Day Lewis, Dylan Thomas and others.

436/536 BRITISH FICTION: 1900-1925 *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Study of Conrad, Joyce, D. H. Lawrence and Virginia Woolf, with attention to their innovations in narrative and style, their psychological realism and symbolism. Brief consideration of other important fiction writers of the period, including Wells, Bennett and Mansfield.

437/537 BRITISH FICTION SINCE 1925 *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Study of important British novelists since 1925, excluding Lawrence, Joyce and Woolf. Attention to development of British short story from 1925 to present.

439/539 MODERN BRITISH AND IRISH DRAMA *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Study of major British dramatists, principally those of post-World War II. Focal figures are Shaw, Galsworthy, O'Casey, Osborne, Arden and Pinter.

443/543 MELVILLE *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. A study of Herman Melville's life and works. Primary emphasis will be on Melville's major fiction (e.g., Moby Dick, The Confidence Man, Billy Budd), but some attention will also be given to his poetry and travel sketches.

446/546 AMERICAN AUTOBIOGRAPHY *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. An inquiry into the nature of autobiographical writing, with particular attention to the ontology of the "autobiographical self." Includes such authors as Henry Adams, Sherwood Anderson, Mark Twain, Gertrude Stein, Langston Hughes, William Carlos Williams, Loren Eiseley and Maya Angelou.

448/548 AMERICAN ROMANTIC FICTION *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Examination of early American fiction, tracing its genesis, romantic period and germinal movements toward realism. Writers discussed include Cooper, Poe, Hawthorne and Melville.

449/549 AMERICAN FICTION: REALISM AND NATURALISM *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Examination of American writers of realistic and naturalistic fiction (e.g., Howells, James, Crane, Dreiser), tracing developments in American fiction against background of cultural and historical change.

450/550 MODERN AMERICAN FICTION *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Study of significant American short and long fiction from World War I to the present.

451/551 AMERICAN POETRY TO 1900 *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Survey of American poetry of the 17th, 18th and 19th Centuries.

452/552 MODERN AMERICAN POETRY *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Survey of 20th Century American poetry beginning with Edwin Arlington Robinson and ending with contemporary poets.

453/553 AMERICAN WOMEN POETS *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Study of modern poets' uses and revisions of tradition, treatment of relationships between women and men and between women, conceptions of art and of the artist-as-woman, and confrontation of the debate between "public" and "private" poetry.

454/554 20TH CENTURY AMERICAN DRAMA *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Examination of major, established playwrights (including O'Neill, Miller and Williams) and sampling of new and rising ones.

455/555 THE AMERICAN SHORT STORY *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. A study of the development of the short story as a particularly American genre, from Washington Irving to the present.

458/558 FAULKNER *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. An in-depth study of William Faulkner's major novels and short stories, primarily those set in the imaginary Yoknapatawpha region.

467/567 MODERN EUROPEAN FICTION *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Representative European writers from about 1850 to present, in translation. Focus on fiction of such writers as Zola, Tolstoy, Dostoyevsky, Mann, Proust, Kafka and Solzhenitsyn.

469/569 EROS AND LOVE IN EARLY WESTERN LITERATURE *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. An analysis of the use of sex and love in the literature of the Western World from Greco- Roman times to 1800, with special emphasis on how sexuality and "romantic" love are used as allegorical, satiric, fantastic or realistic devices.

470/570 HISTORY OF ENGLISH LANGUAGE *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Development of English language, from its beginnings: sources of its vocabulary, its sounds, its rules; semantic change; political and social influences on changes; dialect origins; correctness.

471/571 U.S. DIALECTS: BLACK AND WHITE *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Study of differences in pronunciation, vocabulary and grammar among U.S. language varieties. Origins, regional and social dimensions are explored. Correctness, focusing on black English and Appalachian speech, explored.

472/572 SYNTAX *3 credits*
Prerequisites: 371, and 111 and 112 or their equivalents, or permission of the instructor. Principles of syntactic description. Sentence structures are investigated from a variety of languages, with emphasis on English.

473/573 SEMINAR IN TEACHING ESL: THEORY AND METHOD *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Theoretical issues in linguistic description and language acquisition as relevant to learning of a second language. Elaboration of principles for the teaching of English as a second language based on research in linguistics, psycholinguistics and second language pedagogy.

475/575 THEORY OF RHETORIC *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Ancient and modern theories of rhetoric, with attention to classical oration, "topics" of rhetoric and their application to teaching of English.

482 SENIOR HONORS PROJECT IN ENGLISH *1-3 credits*
(May be repeated for a total of six credits). Prerequisites: Completion of 1100:111 and 1100:112 or their equivalents, or permission of the instructor, senior standing in Honors Program and approval of honors preceptor; open only to English majors enrolled in Honors Program. Independent study leading to completion of senior honors thesis or other original work.

483/583 FANTASY AND SCIENCE FICTION *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Selected British and American fantasy and science fiction from the 1880s to the present.

484/584 FANTASY *3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. A study of forms of literature, primarily fiction, based on and controlled by an overt violation of what is generally considered as possibility.

489/589 SEMINAR IN ENGLISH *2-3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. (May be repeated with different topics.) Special studies, and methods of literary research, in selected areas of English and American literature and language.

490/590 WORKSHOP IN ENGLISH *1-3 credits*
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. (May be repeated with different topics) Group studies of special topics in English. Cannot be used to meet undergraduate or graduate major requirements in English; for elective credit only.

498 INDEPENDENT STUDY *1-3 credits*
Prerequisite: completion of 111 and 112 or their equivalents. Directed study in a special field of interest chosen by student in consultation with instructor.

GEOGRAPHY AND PLANNING 3350:

100 INTRODUCTION TO GEOGRAPHY *3 credits*
Analysis of world patterns of population characteristics, economic activities, settlement features, landforms, climate as interrelated factors.

300 GEOGRAPHY OF TRAVEL AND TOURISM *3 credits*
Prerequisite: 100. Examination of the spatial, cultural, and regional economic impact of tourism and travel; consideration of modes and purposes, origins/destinations, and tourism development and planning.

305 MAPS AND MAP READING *3 credits*
Introduction to use and interpretation of maps. Study of basic map types, elements, symbolism, and historical and cultural context of maps.

310 PHYSICAL AND ENVIRONMENTAL GEOGRAPHY *3 credits*
Landforms, weather and climate, soils and vegetation and natural hazards. Nature and distribution of these environmental elements and their significance to society. Laboratory.

314 CLIMATOLOGY *3 credits*
Prerequisite: 310 or permission. Analysis and classification of climates, with emphasis on regional distribution. Basic techniques in handling climate data.

320 ECONOMIC GEOGRAPHY *3 credits*
Geographical basis for production, exchange, consumption of goods. Effect of economic patterns on culture and politics.

326 ENERGY AND ECOLOGY *3 credits*
Prerequisite: 320 or permission. Traditional fossil fuels and recently developed alternative sources of energy studied along with electricity production. Production and consumption patterns, effects of conservation and environmental damage and energy policy considered.

330 RURAL AND URBAN SETTLEMENT *3 credits*
Origin, function and rationale of settlements. Includes analysis of rural settlement landscape as well as fundamentals of urban geography.

335 RECREATION RESOURCE PLANNING *3 credits*
Prerequisite: 330 or permission. Effect of physical and economic environment on recreational patterns. Case studies of important recreational activities and areas in which tourism contributes significantly to the area economy.

340 CARTOGRAPHY *3 credits*
Prerequisite: 305 or 2940:210 or permission. Use of graphic/cartographic principles and techniques as a means of presenting geographical information on maps and producing maps. Laboratory.

350 GEOGRAPHY OF THE UNITED STATES AND CANADA *3 credits*
Prerequisite: 100 or permission. Regional and topical study of United States and Canada, with emphasis on environmental, economic and cultural patterns and their interrelationships.

351 OHIO: ENVIRONMENT AND SOCIETY *3 credits*
Regional and topical analysis of cultural, economic and environmental patterns; also in comparison with other states.

353 LATIN AMERICA *3 credits*
Prerequisite: 100 or permission. Analysis of relationship of cultural and economic patterns to physical environment in Mexico, Central America, the Caribbean and South America.

356 EUROPE *3 credits*
Prerequisite: 100 or permission. Regional and topical analysis of cultural, economic and environmental patterns.

356 RUSSIA AND ASSOCIATED STATES *3 credits*
Prerequisite: 100 or permission. Regional and topical analysis of cultural, economic and environmental patterns, with comparison to other major world regions.

360 ASIA *3 credits*
Prerequisite: 100 or permission. Environmental, cultural and economic geography of East, Southeast, South Asia and Middle East with emphasis on the contemporary.

363 AFRICA SOUTH OF THE SAHARA *3 credits*
Prerequisite: 100 or permission. Environmental and human bases of regional contrasts. Emphasis on tropical environmental systems and changing patterns of resource utilization.

375 GEOGRAPHY OF CULTURAL DIVERSITY *2 credits*
Evaluation of cultural elements unique to various geographical regions to explain why different people utilize resources differently, and how cultural diversity affects regional conflicts.

385 PLANNING SEMINAR *1 credit*
Prerequisite: permission of instructor. Development of planning studies including completion of paper covering a planning topic in depth. Projects are presented by student and critically analyzed.

397 SPECIAL PROBLEMS *1-3 credits*
(May be repeated for a total of five credits) Prerequisite: permission of instructor. Directed reading and research in special field of interest.

403/503 COMPUTER APPLICATIONS IN GEOGRAPHY AND PLANNING *3 credits*
Application of advanced information technologies to geography and planning, including operating systems, electronic spreadsheets, data base management systems, and the Internet. Laboratory.

405/505 GEOGRAPHIC INFORMATION SYSTEMS *3 credits*
Prerequisites: 340/540 and 403/503 or permission. Introduction to the principles and concepts underlying geographic information systems (GIS) and their application in professional practice and academic research. Laboratory.

407/507 ADVANCED GEOGRAPHIC INFORMATION SYSTEMS *3 credits*
Prerequisites: 405/505. Advanced instruction in the theory and application of geographic information systems (GIS) including hands-on experience with both raster and vector GIS. Laboratory.

422/522 TRANSPORTATION SYSTEMS PLANNING *3 credits*
Prerequisite: 320 or permission. Study and analysis of transportation systems from a geographic perspective. Emphasis on transportation problems and issues, elements of transportation planning.

428/528 INDUSTRIAL AND COMMERCIAL SITE LOCATION *3 credits*
Prerequisite: 320 or permission. Relationship between land, resources, population, transportation and industrial and commercial location processes.

433/533 INTRODUCTION TO PLANNING *3 credits*
Introduction to the history, theories and forms of urban planning.

436/536 URBAN LAND USE ANALYSIS *3 credits*
Prerequisite: 330 or permission. Land use classification systems and their spatial variation in urban areas. Land use data are collected by student by field work and analyzed to identify the associations and structure of subregions.

436/538 WORLD METROPOLITAN AREAS *3 credits*
Prerequisite: 330 or permission. Comparative analysis of metropolitan regions. Urbanism, land use, housing, transportation, population and role of cities in economic development in different cultures.

442/542 THEMATIC CARTOGRAPHY *3 credits*
Prerequisite: 340 or permission. Principles and techniques of thematic mapping. Stresses maps as communications tools. Examines principle thematic mapping techniques and means of presenting qualitative and quantitative data. Laboratory.

444/544 APPLICATIONS IN CARTOGRAPHY AND GEOGRAPHIC INFORMATION SYSTEMS *3 credits*
Prerequisite: 340 or 540 and 405 or 505 or permission. Application of analytic and presentation techniques from cartography and geographic information systems to practical problems in geography and planning. Laboratory.

447/547 INTRODUCTION TO REMOTE SENSING *3 credits*
Prerequisite: 305 or permission. Application of analytic and presentation techniques from cartography and geographic information systems to practical problems in geography and planning. Laboratory.

448/548 ADVANCED CARTOGRAPHY *3 credits*
Prerequisite: 340/540 or permission. Advanced study of cartographic principles with an emphasis on the use of color for map design and production. Laboratory activities.

449/549 ADVANCED REMOTE SENSING *3 credits*
Prerequisite: 447/547 or permission. Current research in remote sensing. Applications in study of human cultural and biophysical environment. Practice in planning, design, execution and interpretation of remote sensing studies.

450/550 DEVELOPMENT PLANNING *3 credits*
A study of planning concepts and techniques for developing countries, including growth and development, planning agencies, regional inequities and alternative approaches.

471/571 MEDICAL GEOGRAPHY AND HEALTH PLANNING *3 credits*
Spatial analysis of diseases; their socioeconomic correlates; diffusion pattern of infectious diseases with particular reference to North America; health-planning processes and spatial analysis of health-care delivery systems.

481/581 RESEARCH METHODS IN GEOGRAPHY AND PLANNING *3 credits*
Prerequisites: 12 credits in Geography and Planning. Investigation of library and archive resources. Emphasis on development of professional writing skills.

483/583 SPATIAL ANALYSIS *3 credits*
Prerequisite: 481/581 or permission. Analysis of mapped statistical surfaces. Principles for use of map as model for statistical evidence, prediction, hypothesis testing.

489/589 SPECIAL TOPICS IN GEOGRAPHY *1-3 credits*
(May be repeated) Selected topics of interest in geography.

490/590 WORKSHOP IN GEOGRAPHY *1-3 credits*
(May be repeated for a total of six credits) Group studies of special topics in geography.

495/595 SOIL AND WATER FIELD STUDIES *3 credits*
Prerequisite: 310 or permission. Properties, origins and uses of major soil and water regime landscapes. Stresses relationships between soil and the hydrological cycle, urbanization, suburbanization and agriculture. Field trips required.

496/596 FIELD RESEARCH METHODS *3 credits*
Prerequisite: 481/581 or permission. Field work enabling student to become competent in collecting, organizing and analysis of data while carrying out field research projects.

498 HONORS RESEARCH IN GEOGRAPHY *1-3 credits*
(May be repeated for a total of six credits) Prerequisite: permission of department honors preceptor, honors student only. Exploration of research topics and issues in contemporary geography. Selection of research topic and writing of research paper in proper scholarly form under direction of faculty member.

GEOLOGY

3370:

100 EARTH SCIENCE *3 credits*
Introduction to earth science for non-science majors. Survey of earth in relation to its physical composition, structure, history, atmosphere, oceans; and relation to solar system and universe.

101 INTRODUCTORY PHYSICAL GEOLOGY *4 credits*
A study of the nature of earth, its materials, and the processes which continue to change it. Laboratory.

102 INTRODUCTORY HISTORICAL GEOLOGY *4 credits*
Prerequisite: 101. Geologic history of earth, succession of major groups of plants and animals interpreted from rocks, fossils. Laboratory.

103 NATURAL SCIENCE: GEOLOGY *3 credits*
Study of basic principles and investigative techniques in various fields of geology with emphasis on relationship of geologic processes to society.

121-138 CONCEPTS IN GEOLOGY *1 credit each*
A series of one-credit modules designed to introduce specific topics of science and the scientific method from the perspective of geologists.

121 DINOSAURS *1 credit*
Introductory course exploring the geological occurrence, mode of fossilization, evolutionary development, habits, and sudden extinction of the largest known land vertebrates.

122 MASS EXTINCTIONS AND GEOLOGY *1 credit*
Catastrophic changes in plants and animals have occurred throughout earth history. The causes of these extinctions have sparked debate which has enlivened the scientific world.

123 INTERPRETING EARTH'S GEOLOGIC HISTORY *1 credit*
An introduction to geological techniques and reasoning used to develop theories and interpretations of earth history. Exercises allowing students to develop interpretations.

124 PLATE TECTONICS: THE NEW GEOLOGY *1 credit*
Plate tectonic theory is the solution to the origin of: the oceans and mountains, earthquakes and volcanoes, mineral deposits, and many other geological riddles.

125 EARTHQUAKES: WHY, WHERE, WHEN? *1 credit*
Causes and effects of earthquakes, geological settings for earthquakes, seismic measurements, mechanical response of rock to stress, earthquake prediction and precautionary measures.

126 NATURAL DISASTERS AND GEOLOGY *1 credit*
A study of the earth's natural hazards including earthquakes, landslides, meteorites and tsunamis.

127 THE ICE AGE AND OHIO *1 credit*
Introductory course covering the effects of the ice age on the geology, vegetation, fauna and economy of Ohio.

128 GEOLOGY OF OHIO *1 credit*
Survey of Ohio's geologic setting and history, natural resources, landforms, and their significance in terms of human activity, from early settlement to future economy.

129 MEDICAL GEOLOGY *1 credit*
Abundance and distribution of trace elements in surface and groundwater, soils and rocks. The effects of trace elements to health through dose-response relationships.

130 GEOLOGIC RECORD OF CLIMATE CHANGE *1 credit*
Examines evidence of natural climate changes in geologic past and evaluates the role of modern society in influencing future climate.

131 GEOLOGY AND SOCIETY *1 credit*
Discussion of how geology has influenced the growth of societies and how governmental regulation affects the development and exploitation of geological resources.

132 GEMSTONES AND PRECIOUS METALS *1 credit*
Introduction to minerals which form gemstones and precious metals. Topics to be covered include physical properties, geologic occurrences and geographic locations of major deposits.

133 CAVES AND REEFS *1 credit*
Topics include: karst processes and the origin of caverns; carbonate depositional environments and the origin of limestones; environmental problems associated with karst landscapes

134 HAZARDOUS AND NUCLEAR WASTE DISPOSAL *1 credit*
Disposition of hazardous waste in secured landfill site. Geologic factors which determine the selection of low-level and high-level radioactive waste sites.

135 GEOLOGY OF ENERGY RESOURCES *1 credit*
Topics include the origin of hydrocarbon and coal deposits, methods of petroleum exploration, global distribution of hydrocarbon resources.

136 EARTH'S OCEANS *1 credit*
Introduction to the geological evolution of oceans and discussion of factors controlling ocean currents, tides and development of coastlines.

137 EARTH'S ATMOSPHERE AND WEATHER *1 credit*
Structure and composition of the atmosphere; earth's radiation budget; atmospheric moisture, clouds and precipitation; weather systems and storms, severe weather, Ohio weather.

138 PLANETARY GEOLOGY *1 credit*
Solar system characteristics and formation; structure, composition and geology of terrestrial and Jovian planets and their satellites; comets, asteroids, meteorites and their relationship to Earth.

139 CURRENT TOPICS *1 credit*
(May be repeated for up to 2 credits.) Special topics offered once or only occasionally in areas where no formal course exists.

200 ENVIRONMENTAL GEOLOGY *3 credits*
Analysis of geologic aspects of the human environment with emphasis on geologic hazards and environmental impact of society's demand for water, minerals and energy.

201 EXERCISES IN ENVIRONMENTAL GEOLOGY I *1 credit*
Prerequisite or corequisite: 200. Recognition, evaluation of environmental problems related to geology through field, laboratory exercises and demonstrations which apply concepts from 200. Laboratory.

202 GEOLOGY OF THE NATIONAL PARKS *3 credits*
Prerequisite: 100 or 101 or 103. Geologic setting of major national parks, interpreted in terms of geological principles and processes which shaped them in past and/or currently affect them, including the rock cycle, evolution of landscapes and plate tectonics.

203 EXERCISES IN ENVIRONMENTAL GEOLOGY II *1 credit*
Prerequisites: 200 (or corequisite) and 201. Recognition and evaluation of environmental problems related to geology. (Continuation of 201) Laboratory.

230 CRYSTALLOGRAPHY AND NON-SILICATE MINERALOGY *3 credits*
Prerequisites: 101 and 3150:151, 152. Morphological crystallography and crystal chemistry of minerals, followed by physical and chemical properties, crystal structure, occurrence and uses of the common non-silicate minerals. Laboratory.

231 SILICATE MINERALOGY AND PETROLOGY *3 credits*
Prerequisites: 101 and 3150:151, 152. Recommended: 230. Physical and chemical properties, crystal structure, occurrence, and uses of common silicate minerals, followed by megascopic identification, classification, and petrogenesis. Laboratory.

301 ENGINEERING GEOLOGY *3 credits*
Prerequisites: Four credits in introductory physical geology and permission. Presents quantitative analyses of geologic features and processes and is supported by the study of case histories. Lecture, lab, and field study.

310 GEOMORPHOLOGY *3 credits*
Prerequisite: 101. Study of landforms as a function of structure, process, and time. Laboratory.

324 SEDIMENTATION AND STRATIGRAPHY *4 credits*
Prerequisites: 102 and 231. Introduction to sedimentary processes and environments; stratigraphic principles and techniques. Hand specimens, thin sections, and sedimentary sequences studied. Laboratory.

350 STRUCTURAL GEOLOGY *4 credits*
Prerequisite: 101 or permission. Origins and characteristics of folds, faults, joints and rock cleavage. Structural features of sedimentary, igneous and metamorphic rocks. Laboratory.

360 INTRODUCTORY INVERTEBRATE PALEONTOLOGY *4 credits*
Prerequisite: 102 or permission. Introductory course emphasizing morphology and evolution of major invertebrate groups with consideration of practical applications of paleontology. Laboratory.

371 OCEANOGRAPHY *4 credits*
Prerequisite: 101. Study of the dominant feature of our planet, the oceans, emphasizing ocean basins evolution, and physical, chemical and biological processes in the various marine environments.

405/505 ARCHAEOLOGICAL GEOLOGY *3 credits*
Prerequisites: 101, or permission. Provides background in geologic principles and techniques relevant to archaeologists. Topics include stratigraphy, absolute dating, locality assessment, zooarchaeology, taphonomy, and remote sensing. Laboratory.

410/510 REGIONAL GEOLOGY OF NORTH AMERICA *3 credits*
Prerequisites: 101, 102, or permission; recommended: 350. Examination of physiographic provinces of North America emphasizing structure, tectonic setting, stratigraphy and processes responsible for landforms in each province. Laboratory.

411/511 GLACIAL GEOLOGY *3 credits*
Prerequisite: permission. Causes and effects of Pleistocene expansion of polar ice masses with emphasis on glacial deposits and world climatic changes. Laboratory.

421/521 COASTAL GEOLOGY *3 credits*
Prerequisites: 101, 324 or permission of instructor. Study of the origins and evolution of coasts and coastal deposits with particular attention paid to the interaction of waves and currents with sediment, and the development of associated sedimentary features.

425/525 PRINCIPLES OF SEDIMENTARY BASIN ANALYSIS *3 credits*
Prerequisites: 324 and 360 or permission. Primarily the study of depositional systems, regional and global stratigraphic cycles, and sedimentation and plate tectonics.

432/532 OPTICAL MINERALOGY-INTRODUCTORY PETROGRAPHY *3 credits*
Prerequisites: 230 and 231. Optical techniques for identification, characterization, and classification of minerals and rocks using the petrographic microscope. Laboratory.

433/533 ADVANCED PETROLOGY *3 credits*
Prerequisite: 432/532. Petrogenesis of igneous, metamorphic and sedimentary rocks as determined by microscopic studies of textures and mineral assemblages using thin sections. Laboratory.

435/535 PETROLEUM GEOLOGY *3 credits*
Prerequisite: 350 or permission; recommended: 324. Natural occurrences of petroleum. Characteristics, origin, entrapment and exploration methods. Laboratory.

436/536 COAL GEOLOGY *3 credits*
Prerequisites: 101, 102; recommended: 324. Origin, composition and occurrence of coal with emphasis on depositional environments, coalification processes, exploration, evaluation and exploitation. Laboratory.

437/537 ECONOMIC GEOLOGY *3 credits*
Prerequisites: 231 and 350. Study of metallic and nonmetallic mineral deposits emphasizing paragenesis and exploration. Laboratory.

441/541 FUNDAMENTALS OF GEOPHYSICS *3 credits*
Prerequisites: 3450:223 or permission and 3650:292. Fundamental concepts in solid earth geophysics, planetary physics, geodesy, and geomagnetism. Contributions of geophysics to recent major developments in geoscience.

446/546 EXPLORATION GEOPHYSICS *3 credits*
Prerequisites: 3450:223, 3650:292 or permission. Basic principles and techniques of geophysical exploration with emphasis on gravimetric, magnetic, seismic and electrical methods and application to geological problems. Laboratory.

449/549 BOREHOLE GEOPHYSICS *3 credits*
Prerequisite: permission. Basic principles and techniques of geophysical well logging with emphasis on electrical, radioactive, and sonic measures and their quantitative evaluation. Applications in oil, gas, and groundwater exploration. Laboratory.

450/550 ADVANCED STRUCTURAL GEOLOGY *3 credits*
Prerequisite: 350 or permission. Fundamental and advanced concepts of structural geology with emphasis on current and developing concepts. Laboratory.

462/562 ADVANCED PALEONTOLOGY *3 credits*
Prerequisites: 360. Provides advanced training in paleontological subjects. Topics will include paleoenvironmental analysis, biostratigraphic correlation, fossil preservation, diversification and extinction patterns and geochemical signals of fossils.

463/563 MICROPALEONTOLOGY *3 credits*
Prerequisite: 360 or permission. Introduction to techniques of micropaleontology evolution and paleoecology of selected microfossil groups. Laboratory.

470/570 GEOCHEMISTRY *3 credits*
Prerequisite: 101, 230, and 231, 3150:151, 152 and 153 or permission. Application of chemical principles to the study of geologic processes. Laboratory.

472/572 STABLE ISOTOPE GEOCHEMISTRY *3 credits*
Prerequisite: 101 and 102; 3150:151, 152 and 153; 3450:221. Application of stable isotope geochemistry to the study of hydrologic and carbon cycles, modern sedimentary environments, and the interpretation of sedimentary rocks.

474/574 GROUNDWATER HYDROLOGY *3 credits*
Prerequisite: 101. Origin, occurrence, regimen and utilization of groundwater. Qualitative and quantitative presentation of geological and geochemical aspects of groundwater hydrology.Laboratory.

481/581 ANALYTICAL METHODS IN GEOLOGY *2 credits*
Prerequisite: 230, 231. A survey of analytical methods used to solve geologic problems with emphasis on method selection, proper sample collection, analysis of data quality and data presentation.

484/584 GEOSCIENCE INFORMATION ACQUISITION AND MANAGEMENT *1 credit*
Prerequisite: Must be a Geology Department graduate student or senior major in Geology, or have permission of instructor. Methods for finding, gathering, managing, and evaluating geoscience information. Emphasis on finding data sources (including electronic), creating valid data sets, visualizing data.

490/590 WORKSHOP *1-3 credits*
(May be repeated) Group studies of special topics in geology. May not be used to meet undergraduate or graduate major requirements in geology. May be used for elective credit only.

493/593 GEOLOGY FIELD CAMP I *3 credits*
Prerequisites: 101 and 102 and permission; Introduction to collection and interpretation of field data and construction of geologic maps.

494/594 GEOLOGY FIELD CAMP II *3 credits*
Prerequisites: 231, 350,493/593, or permission. Advanced techniques and methods of field geology necessary for detailed geologic maps and interpretations.

495 FIELD STUDIES IN GEOLOGY *1-3 credits*
(May be repeated for a total of four credits) Prerequisite: permission. Field trip course emphasizing phases of geology not readily studied in Ohio. Includes pretrip preparation and post-trip examination. Student will bear trip expenses.

497 SENIOR HONORS PROJECT IN GEOLOGY *1-3 credits*
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors Program, permission of department honors preceptor and major in geology or natural science. Independent research leading to completion of senior honors thesis or other original work under guidance of student's honors project adviser.

498 SPECIAL TOPICS *1-3 credits*
Prerequisite: permission of instructor. Special lecture courses offered once or only occasionally in areas where no formal course exists.

499 RESEARCH PROBLEMS *1-3 credits*
(May be repeated for a total of four credits) Prerequisite: permission. Independent research leading to the completion of a written paper or presentation at a professional meeting.

HISTORY

3400:

200 EMPIRES OF ANCIENT ASIA *3 credits*
Comparative study of the formative empires East, South, and western Asia. Emphasis on the origins and development of core institutions and early writings.

210 HUMANITIES IN THE WESTERN TRADITION I: ANTIQUITY TO THE RENAISSANCE *4 credits*
Prerequisites: 32 credits and completion of 3300:112. Introduction to the human condition in the past as manifested in the ideas, religions, visual arts and music of Western civilization from the ancient Greeks through the Renaissance. Cannot be used to meet major requirements in History.

211 HUMANITIES IN THE WESTERN TRADITION II: REFORMATION TO THE PRESENT *4 credits*
Prerequisite: 3400:210. Introduction to the human condition in the past as manifested in the ideas, religions, visual arts and music of Western civilization from the Protestant Reformation to the Present. Cannot be used to meet major requirements in History.

250 UNITED STATES HISTORY TO 1877 *4 credits*
Historical survey from the Age of Discovery and North American colonization through the creation of the United States to the Civil War and Reconstruction.

251 UNITED STATES HISTORY SINCE 1877 *4 credits*
Survey of United States history from the end of Federal Reconstruction to the present.

260 AFRICAN-AMERICAN PEOPLE OF THE U.S. – 1492 TO 1877 *3 credits*
Survey of social, economic, political and cultural history of African-American people from 1492 to 1877.

261 AFRICAN-AMERICAN PEOPLE OF THE U.S. – 1877 TO PRESENT *3 credits*
Survey of social, economic, political and cultural history of African-American people from 1877 to present.

300 IMPERIAL CHINA *3 credits*
Selective study of institutional, intellectual, political and artistic developments in Chinese civilization from antiquity to 18th Century. Emphasis on general features of traditional Chinese culture.

301 REVOLUTIONARY CHINA *3 credits*
Survey of China since 18th Century with focus on process of modernization. Background of contemporary scene stressed.

303 JAPAN *3 credits*
Survey of history of Japan from 1600 to present. Emphasis on modernization and the rise of Japanese empire, 1894-1945.

307 ANCIENT NEAR EAST *3 credits*
Mesopotamia, Egypt; Israel, and neighbors to Persian Empire.

308 GREECE *3 credits*
Minoans and Mycenaeans; classical Greece to triumph of Macedon.

310 HISTORICAL METHODS *3 credits*
Introduction to historical research and writing. Required for history major.

313 EASTERN ROMAN EMPIRE *3 credits*
Byzantine culture and history from 324 to the fall of 1453.

317 ROMAN REPUBLIC *3 credits*
An intensive survey of the Roman Republic. Attention will be given to the nature of the source material, ancient historiography, text criticism and the like.

318 ROMAN EMPIRE *3 credits*
An intensive survey of the Roman Empire. Attention will be given to the nature of the source material, ancient historiography, text criticism and the like.

319 MEDIEVAL EUROPE, 500-1200 *3 credits*
Migration of peoples, Carolingian revival, renewed invasions; social, economic and intellectual stirrings lead to "birth of Europe."

320 MEDIEVAL EUROPE, 1200-1500 *3 credits*
Middle Ages and the middle class; economic and political change, international wars, social unrest and religious crosscurrents.

321 EUROPE: RENAISSANCE TO RELIGIOUS WARS, 1350-1610 *3 credits*
Survey of the social, political, economic, religious, and intellectual history of Early Modern Europe from the Italian Renaissance to the early 17th century.

322 EUROPE: ABSOLUTISM TO REVOLUTION, 1610-1789 *3 credits*
Survey of the social, political, economic, religious, and intellectual history of Early Modern Europe from the Thirty Years War to the French Revolution.

323 EUROPE FROM REVOLUTION TO WORLD WAR, 1789-1914 *3 credits*
Surveys the political, economic, social, and cultural history of modern Europe from the French Revolution to the First World War.

324 EUROPE FROM WORLD WAR I TO THE PRESENT *3 credits*
A survey of European political and social history from World War I to the present.

325 WOMEN IN MODERN EUROPE *3 credits*
A survey of the history of women in Europe since 1500, with emphasis on their roles and the changes attendant on modernization.

335 RUSSIA TO 1801 *3 credits*
Survey of Russian history from Kievan period to death of Paul I, emphasizing development of autocratic government, Russian culture, reigns of Peter and Catherine.

336 RUSSIA SINCE 1801 *3 credits*
Survey of 19th and 20th Centuries. Special emphasis on problems of modernization, the revolution and development of communism.

337 FRANCE FROM NAPOLEON TO DeGAULLE *3 credits*
Combines a study of Napoleon and DeGaulle with a survey of the political, economic, social, and cultural/artistic trends of modern French history.

338 ENGLAND TO 1688 *3 credits*
Survey of English history from the Anglo-Saxon conquest to the Revolution of 1688. Medieval and early modern institutions, social and cultural life.

339 ENGLAND SINCE 1688 *3 credits*
Survey of English history from 1688 to the present. The reform of English institutions and life, modernization of the economy, the welfare state, society and war.

340 SELECTED TOPICS *3 credits*
Includes experimental offerings such as those crossing subject of chronological lines, and subjects not listed in this General Bulletin. See departmental office for current subject.

350 WOMEN IN THE UNITED STATES *3 credits*
Changing roles, status, self-images and activities of women in context of American social, economic, political and intellectual movements.

352 THE WEST IN THE DEVELOPMENT OF THE UNITED STATES *3 credits*
Examination of westward movement from revolution to closing of frontier; types of frontiers; impact of west on nation's development.

354 AMERICAN IMMIGRATION *3 credits*
Examination of European migrants to American colonies and United States, their reasons for leaving Europe and coming to America, and their experience after arrival.

356 SPORTS IN AMERICAN HISTORY SINCE 1865 *3 credits*
An examination of the reciprocal relationship between sports and various institutions of society: culture, religion, politics, education, economics, race, ethnicity, diplomacy and gender.

358 THE AMERICAN CITY *3 credits*
Development of urbanization and its consequences from colonial period to present.

364 AMERICAN FAMILY HISTORY *3 credits*
Evolution of American family, colonial times to present, including developments in structure and roles of family members, and status of the aged. Exploration of methods for historical study of the family.

366 HISTORY OF AMERICAN TRANSPORTATION *3 credits*
A survey of development of major transportation forms, water, road, rail and air. Special emphasis on technological change, social and economics trends, and government support and control.

370 EVOLUTION OF AMERICAN BUSINESS *3 credits*
An examination of the development of the American business system from the Colonial era to the present.

380 WAR AND PEACE: THE HISTORICAL PERSPECTIVE *3 credits*
Historical examination of theories of war and peace, including study of leaders, groups and ideas for peace.

382 THE VIETNAM WAR *3 credits*
An examination and evaluation of all aspects of the war in Vietnam, political, military, diplomatic and economic, including its impact domestically then and later.

383 SOVIET AND UNITED STATES WOMEN IN THE TWENTIETH CENTURY *3 credits*
An historical and comparative study of the status of women in both societies, with special attention to changing conditions, the efforts by women, individually and collectively, to define and shape role.

385-391 WORLD CIVILIZATIONS
Courses 385 through 391 are designed to provide a basic knowledge of past human experiences and an understanding of current events in key areas of the non-Western world. These courses can not be used to meet major requirements in History.

385 WORLD CIVILIZATIONS: CHINA *2 credits*
Prerequisite: 64 credits.

386 WORLD CIVILIZATIONS: JAPAN *2 credits*
Prerequisite: 64 credits.

387 WORLD CIVILIZATIONS: SOUTHEAST ASIA *2 credits*
Prerequisite: 64 credits.

388 WORLD CIVILIZATIONS: INDIA *2 credits*
Prerequisite: 64 credits.

389 WORLD CIVILIZATIONS: NEAR EAST *2 credits*
Prerequisite: 64 credits.

390 WORLD CIVILIZATIONS: AFRICA *2 credits*
Prerequisite: 64 credits.

391 WORLD CIVILIZATIONS: LATIN AMERICA *2 credits*
Prerequisite: 64 credits.

397 INDIVIDUAL STUDY OR RESEARCH IN HISTORY *1-3 credits*
(May be repeated for a total of four credits) Prerequisite: permission. For individual study or research in history, including special projects, summer study tours or specialized training.

400/500 WOMEN IN REVOLUTIONARY CHINA *3 credits*
Prerequisites: 300, 301 or 385, or permission of instructor. A study of the changes in women's lives in China during the late imperial (1644-1911) and socialist (1949-1989) periods.

401/501 IMPERIALISM IN EAST ASIA *3 credits*
An examination of the East Asian relations in the modern period, highlighting China's response to British, Russian, and Japanese imperialism in the 19th and 20th centuries.

403 STUDIES IN GREEK HISTORY *3 credits*
Prerequisite: Completion of six hours of History courses at the 200 or 300 level. Concentrated investigation of selected topics, such as Homer and the Bronze Age, Athenian democracy and imperialism or Alexander the Great and the multi-ethnic state.

404 STUDIES IN ROMAN HISTORY *3 credits*
Prerequisite: Completion of six hours of History courses at the 200 or 300 level. Concentrated investigation of selected topics, such as imperialism in middle and late Republic, the age of Augustus, or the fall of western Empire.

416/516 MODERN INDIA *3 credits*
History of the Indian subcontinent from c. 1500 with emphasis on India society and culture, British imperialism, and the emergence of Indian nationalism.

424/524 THE RENAISSANCE *3 credits*
The age of transition from the Middle Ages to modern times (1350-1600). Special emphasis on intellectual trends, the development of humanism, and the fine arts.

425/525 THE REFORMATION *3 credits*
Europe in 16th Century; its religious, cultural, political and diplomatic development, with special emphasis on Protestant, Anglican and Catholic reformations.

429/529 EUROPE IN THE FRENCH REVOLUTIONARY ERA, 1789-1815 *3 credits*
Development of Revolution; Napoleon's regime and satellites.

438/538 NAZI GERMANY *3 credits*
This course covers the social, economic, and political history of Germany from World War I to 1945 with emphasis on the Third Reich.

439/539 EUROPE IN THE COLD WAR *3 credits*
Prerequisite: Six hours of 3400 courses at the 200 or 300 level, or permission of the instructor. The political, social, and cultural history of Europe from the end of the Second World War to the Revolutions of 1989.

440/540 TUDOR AND STUART ENGLAND, 1485-1714 *3 credits*
Emphasis on social, economic and cultural topics, including literature, art and architecture.

443/543 CHURCHILL'S ENGLAND *3 credits*
An examination of the changes that Britain experienced during the life of Winston Churchill, 1874-1965. Emphasis is on cultural, social, and political developments.

450/550 THE AMERICAN COLONIES IN THE 17TH CENTURY, 1607-1713 *3 credits*
Establishment of European colonies in America with special emphasis on English settlements and evolution of the first British Empire to 1713.

451/551 THE 18TH CENTURY COLONIES AND FOUNDING OF THE U.S., 1713-1800 *3 credits*
Colonial life from the Glorious Revolution to the founding of the United States. Major movements (wars, religious revivals, economic growth) and political controversies.

452/552 THE AMERICAN REVOLUTIONARY ERA: POLITICAL, MILITARY, AND CONSTITUTIONAL ASPECTS *3 credits*
The struggle for the rights of Englishmen and independence; the impact of war on American society and the creation of republican institutions.

453/553 AGE OF JEFFERSON AND JACKSON, 1800-1850 *3 credits*
The evolution of the republic in its formative stages from Jefferson through Jackson to the Compromise of 1850. Emphasis upon political, social, intellectual and Constitutional developments.

454/554 THE CIVIL WAR AND RECONSTRUCTION, 1850-1877 *4 credits*
Sectionalism, slavery and the causes of the Civil War; wartime activities of the Union and Confederacy; leading personalities; problems of reconstruction and the new Union.

455/555 THE ORIGINS OF MODERN AMERICA, 1877-1917 *3 credits*
United States from Reconstruction Era to World War I (1877-1920); emphasis on political responses to rise of an industrialized-urbanized society, the populist and progressive movements.

456/556 AMERICA IN WORLD WARS AND DEPRESSION, 1917-1945 *3 credits*
World War I and Versailles; the 1920s, the Great Depression and the New Deal; World War II.

457/557 RECENT AMERICA: THE UNITED STATES SINCE 1945 *3 credits*
Nuclear age, cold war, foreign policy and domestic affairs to present. Social, political, constitutional, diplomatic, cultural and economic changes since 1945.

460/560 UNITED STATES DIPLOMACY TO 1919 *3 credits*
Establishment of basic policies, diplomacy of expansion and emergence of a world power.

461/561 UNITED STATES DIPLOMACY SINCE 1914 *3 credits*
Responses of government and public to challenges of war, peace making and power politics.

462/562 U.S. CONSTITUTIONAL HISTORY TO 1870 *3 credits*
This course will examine the creation of the U.S. Constitution and Bill of Rights, as well as constitutional evolution through the Civil War.

463/563 U.S. CONSTITUTIONAL HISTORY SINCE 1870 *3 credits*
This course will examine the evolution of constitutional government, as well as civil liberties and individual rights from the Civil War to the present.

464/564 AMERICAN ECONOMY TO 1900 *3 credits*
Survey of economic developments from colonial era; including agriculture, commerce, labor. Special emphasis on role of big business and evolution of monetary and fiscal policy.

465/565 AMERICAN ECONOMY SINCE 1900 *3 credits*
Survey of economic developments since 1900; topics include agriculture, business and labor. Special emphasis on role of big business and evolution of monetary and fiscal policy.

466/566 UNITED STATES SOCIAL-CULTURAL HISTORY TO 1877 *3 credits*
Concepts and attitudes considered in their social, cultural framework. Emphasis on population growth, rural and urban life, literature, the arts, family life, slavery and impact of Civil War.

467/567 UNITED STATES SOCIAL-CULTURAL HISTORY SINCE 1877 *3 credits*
Concepts and attitudes; emphasis on business; agrarianism; self-made individuals; progressivism; impact of world wars; social-economic planning; trends in literature and art; social structure and change; black Americans; women's movements.

468 AFRICAN-AMERICAN SOCIAL AND INTELLECTUAL HISTORY *3 credits*
Examination of black thought and activities reflective of African-American culture, conditions facing black people within America and efforts toward coordinated black activity.

470/570 OHIO HISTORY *3 credits*
Political, social, economic and intellectual history of Ohio, with special emphasis on Ohio's relationship to Old Northwest and to the nation.

471/571 AMERICAN ENVIRONMENTAL HISTORY *3 credits*
Utilization, conservation of natural resources from beginnings of American society to present; combination of economic, technological history of extensive treatment of public policy, environmental issues.

472/572 LATIN AMERICA: ORIGINS OF NATIONALITY *3 credits*
Pre-Columbian civilizations, discovery and conquests; colonialism, struggle for independence and formation of new societies.

473/573 LATIN AMERICA: THE TWENTIETH CENTURY *3 credits*
Social revolution, political ideology and contemporary problems.

474 THE UNITED STATES, LATIN AMERICA, AND IMPERIALISM *3 credits*
Inter-American relations, militarism, dependency, Marxism, and recent international and ideological trends.

475/575 MEXICO *3 credits*
History of Mexico from Indian civilization to present with emphasis on relations with United States; social and political ramifications of the 20th Century Mexican revolution.

476/576 CENTRAL AMERICA AND THE CARIBBEAN *3 credits*
Selected aspects of the histories of Central American and Caribbean countries with emphasis on populist and peasant movements, political reform, social revolution, economic and under development, and relations with the United States.

481/581 HISTORY OF CANADA *3 credits*
Survey of Canadian history from the age of the explorers to the present. Special emphasis will be placed on the history of French-Canadians, on economic development and on Canadian-American relations.

482/582 WAR AND WESTERN CIVILIZATION *3 credits*
War and society in Europe, America and beyond from ancient world to present with special emphasis on period since 1740.

484/584 HISTORICAL AGENCY ADMINISTRATION *3 credits*
Organization and administration of non-academic historical agencies (e.g. societies, museums, libraries, etc.). Some field experience in a local historical agency.

485/585 FUNCTIONS OF HISTORICAL AGENCIES *3 credits*
Prerequisite: 410/510 or permission. The functions and programs of historical agencies. Students will develop a project that involves participating in an agency function.

486/586 WESTERN SCIENCE TO 1800 *3 credits*
Science in Greek, Roman, Islamic, European societies with special emphasis on the scientific revolution of the 16th and 17th Centuries.

487/587 WESTERN SCIENCE SINCE 1800 *3 credits*
Continuing development of physical, medical, biological sciences in European and American societies. Atomic physics and weapons, evolution, genetics, modern medicine.

488/588 WESTERN TECHNOLOGY *3 credits*
Technology in Mesopotamia, Egypt, Greece, Rome, Islam, medieval Europe; first and second industrial revolutions in Europe, America.

491 HONORS SEMINAR *3 credits*
Prerequisite: permission of department head or instructor. Selected readings; writing of research paper. For student seeking to graduate with honors in history and for student in Honors Program.

492 HONORS PROJECT *1-3 credits*
(May be repeated for a total of six credits) Prerequisite: senior standing in Honors Program. An individual research project relevant to history, supervised by a member of the Department of History, culminating in an undergraduate thesis.

493/593 SPECIAL STUDIES IN HISTORY *3 credits*
Includes experimental and interdisciplinary studies, as well as those subjects that are not listed in this General Bulletin. See departmental office for information on particular offerings.

494/594 WORKSHOP IN HISTORY *1-3 credits*
(May be repeated) Group studies of special subjects pertaining to history. May be used for elective credit only. May not be used to meet undergraduate or graduate major requirements in history.

MATHEMATICS

3450:

100 PREPARATORY MATHEMATICS *3 credits*
Prerequisite: Placement. A review of high school algebra: real numbers, exponents and radicals, factoring, linear and quadratic equations, graphing, systems of equations, and problem solving.For students whose algebraic skills are not sufficient to allow them to enroll in University mathematical science courses. Does not meet General Studies mathematics requirement.

113 COMBINATORICS AND PROBABILITY *1 credit*
Prerequisite: 100 or placement test. Permutations, combinations, sample spaces, events; simple, compound and conditional probability; Bernoulli trials, expectations and odds.

114 MATRICES *1 credit*
Prerequisite: 100 or placement test. Nomenclature, operations, inverse, solution of m linear equations in n variables using elementary row operations.

115 LINEAR PROGRAMMING *1 credit*
Prerequisite: 114 or equivalent. Minimizing and/or maximizing a linear function subject to a system of linear inequalities (geometrically and simplex method); introduction to game theory.

121 ANALYTIC GEOMETRY *1 credit*
Prerequisite: 100 or placement test. Cartesian coordinate system; rational, logarithmic, exponential functions; sequences, series, limits, definition of series.

127 TRIGONOMETRY *2 credits*
Prerequisite: Mathematics Placement Test. A standard right triangle approach to trigonometry, including trigonometric and inverse trigonometric functions and graphing, identities, equations, triangle solutions, complex numbers.

135 MATHEMATICS FOR LIBERAL ARTS *3 credits*
Prerequisites: 100 or 2030:153 or placement test. Contemporary applications of mathematics for the non-science major to develop skills in logical thinking and reading technical material. Topics include voting, apportionment, scheduling, patters, networks.

138 MATHEMATICS OF FINANCE *1 credit*
Prerequisite: 100 or placement test. Simple and compound interest; bank discount, ordinary annuities (present value, amount and rate), amortization, annuities, perpetuities.

140 MATH FOR ELEMENTARY TEACHERS *4 credits*
Prerequisites: 100 or placement test. Number systems and bases, measurement, selected topics from algebra, geometry, probability, number theory, graph theory, problem solving, combinatorics, and statistics. Enrollment limited to Elementary Education majors.

141 ALGEBRA WITH BUSINESS APPLICATIONS *3 credits*
Prerequisites: Mathematics Placement Test or 100. Solving, graphing equations; inequalities; algebraic operations; functions, including exponential, logarithmic; matrix operations; systems of equations; simplex method. For students interested in business. Graphing calculator required.

145 COLLEGE ALGEBRA *4 credits*
Prerequisite: Mathematics Placement Test or 100. Real numbers, equations and inequalities, linear and quadratic functions. Exponential and logarithmic functions. Systems of equations, matrices, determinants. Permutations and combinations.

149 PRECALCULUS MATHEMATICS *4 credits*
Prerequisite: 145 or placement. Functions, polynomial functions, complex numbers, exponential and logarithmic functions, systems of equations, trigonometric functions, mathematical inductions, sequences, and binomial theorem.

208 INTRODUCTION TO DISCRETE MATHEMATICS *4 credits*
Prerequisites: 145 or 149 or placement. A foundation course in discrete mathematics with applications. Topics include sets, number systems, Boolean Algebra, logic, relations, functions, recursion, matrices, induction, graphs, and trees.

210 CALCULUS WITH BUSINESS APPLICATIONS *3 credits*
Prerequisites: Mathematics Placement Test or 141 or 145. Review of functions, derivatives of functions, extrema and concavity, optimization, logarithmic and exponential functions, extrema for multivariate functions. Graphing calculator required. For business majors only.

215 CONCEPTS OF CALCULUS I *4 credits*
Prerequisite: 145 or 149 or placement. Functions; limits and continuity; differentiation and applications of differentiation; trigonometric, logarithmic, and exponential functions; integration and applications of integration; math of finance.

216 CONCEPTS OF CALCULUS II *4 credits*
Prerequisite: 215. Trigonometric functions, calculus of trigonometric functions, integration techniques L'Hopital's Rule, improper integrals, multiple integrals, mathematical induction, difference equations, series.

221 ANALYTIC GEOMETRY-CALCULUS I *4 credits*
Prerequisite: 149 or equivalent or placement. Analytic geometry, limits, continuity, derivatives, tangent and normal lines, extrema of functions, Rolle's theorem, mean value theorem, related rates, antiderivatives, definite integrals, areas, volumes, arc length.

222 ANALYTIC GEOMETRY-CALCULUS II *4 credits*
Prerequisite: 221. Derivatives of exponential, logarithmic trigonometric, inverse trigonometric, hyperbolic and inverse hyperbolic functions; methods of integration, sequences, series; moments, centroids, indeterminate forms, polar coordinates.

223 ANALYTIC GEOMETRY-CALCULUS III *4 credits*
Prerequisite: 222. Vector algebra, cylindrical, spherical coordinates, vector-valued functions, curvature; functions of several variables, limit, continuity, partial derivatives, differentials, directional derivatives, maxima and minima, multiple integrals, Divergence Theorem.

235 DIFFERENTIAL EQUATIONS *3 credits*
Prerequisite: 223 or permission of instructor. Methods of forming and solving important types of differential equations. Analysis of models involving differential equations of first order and simple equations of second order.

289 SELECTED TOPICS IN MATHEMATICS *1-3 credits*
Prerequisite: permission. Selected topics of interest in mathematics.

307 FUNDAMENTALS OF ADVANCED MATHEMATICS *3 credits*
Prerequisite: 222. Logic, solving problems, and doing proofs in mathematics. Sets, extended set operations, and indexed family sets, induction. Binary relations. Functions, cardinality. Introductory concepts of algebra and analysis.

312 LINEAR ALGEBRA *3 credits*
Prerequisite: 223 or permission of instructor. Study of vector spaces, linear transformations, matrices, determinants, inner products, the eigenvalue problem, quadratic forms and canonical forms.

335 INTRODUCTION TO ORDINARY DIFFERENTIAL EQUATIONS *3 credits*
Prerequisite: 223 or equivalent. Basic techniques for solving ODES, an introduction to theoretical topics including existence and uniqueness of solutions, linear systems, stability of solutions, and phase plane analysis.

401/501 HISTORY OF MATHEMATICS *3 credits*
Prerequisite: 222. Origin and development of mathematical ideas. Course does not meet degree requirement in the department.

410/510 ADVANCED LINEAR ALGEBRA *3 credits*
Prerequisite: 312. Study of vector spaces, linear transformation, canonical and quadratic forms, inner product spaces.

411/511 ABSTRACT ALGEBRA I *3 credits*
Prerequisite: 307 or permission of instructor. Study of groups, rings, fields, integral domains.

412/512 ABSTRACT ALGEBRA II *3 credits*
Prerequisite: 411/511 or permission of instructor. Study of groups, rings, fields, integral domains, vector spaces, field extensions, Galois theory.

413/513 THEORY OF NUMBERS *3 credits*
Prerequisite: 222 or permission. Euclidean algorithm, unique factorization theorem, congruences, primitive roots, indices, quadratic residues, number-theoretic functions, Gaussian integers and continued fractions.

414/514 VECTOR ANALYSIS *3 credits*
Prerequisite: 223. Vector algebra, calculus of scalar-vector, vector-scalar, vector-vector functions; integral theorems; orthogonal and general curvilinear. Application of geometry and engineering.

415/515 COMBINATORICS AND GRAPH THEORY *3 credits*
Prerequisite: 222 or permission. Introduction to basic ideas and techniques of mathematical counting; properties of structure of systems.

421,2/521,2 ADVANCED CALCULUS I AND II *3 credits each*
Sequential. Prerequisite: 223; 307 is highly recommended. Real number system, sequences, series, set theory, continuity, differentiation, integration, partial derivatives, multiple integration, maxima and minima, convergence and uniform convergence, power series, improper integrals, transformations, line and surface integrals.

425/525 COMPLEX VARIABLES *3 credits*
Prerequisite: 223. Complex variables; elementary functions, differentiation and analytic functions; integration and Cauchy's theorem; power series and Laurent series; residue theorem; applications such as conformal mappings, inversion of integral transform.

427/527 INTRODUCTION TO NUMERICAL ANALYSIS *3 credits*
Prerequisites: 223 and either 3460:201 or knowledge of FORTRAN. Mathematical analysis of numerical methods for solving equations, interpolating function values, approximating derivatives and integrals, approximating functions.

428/528 NUMERICAL LINEAR ALGEBRA *3 credits*
Prerequisites: 223 and 3460:201 or 330 or knowledge of FORTRAN. Mathematical analysis of numerical methods for solving systems of linear equations, eigenvalue problems, nonlinear systems, linear least square problems.

429/529 NUMERICAL SOLUTIONS FOR ORDINARY DIFFERENTIAL EQUATIONS *3 credits*
Prerequisite: 427/527. Mathematical analysis of numerical methods for solving ordinary differential equations. Runge-Kutta and linear multistep methods for initial value problems. Shooting, collocation and difference methods for boundary value problems.

430/530 NUMERICAL SOLUTIONS FOR PARTIAL DIFFERENTIAL EQUATIONS *3 credits*
Prerequisite: 428/528 or equivalent. For advanced undergraduate and graduate students. The study of finite difference and finite element methods for partial differential equations consistency, stability, convergence and computer implementation.

431/531 SPECIAL FUNCTIONS AND OPERATIONAL CALCULUS *3 credits*
Prerequisite: 235 or 335. Series solutions to differential equations; Bessel functions; orthogonal polynomials; self-adjoint boundary value problems and Fourier series; Laplace transforms; Fourier transforms.

432/532 PARTIAL DIFFERENTIAL EQUATIONS *4 credits*
Prerequisite: 235 or 335. The classical initial value and boundary value problems of mathematical physics developed and solved using Fourier series and integral transforms.

435/535 SYSTEMS OF ORDINARY DIFFERENTIAL EQUATIONS *3 credits*
Prerequisites: 235 or 335 and either 312 or 428 or permission. Analysis, solution of systems of equations, linear, nonlinear. Topics: stability theory, perturbation methods, asymptotic methods, applications from physical, social sciences.

436/536 MATHEMATICAL MODELS *3 credits*
Prerequisite: 235 or 335, and a six-hour sequence in an approved applied area, or permission. Formulation and analysis of mathematical models in social and physical sciences. Analysis of deterministic and stochastic models. Topics may include stochastic processes, linear programming, graph theory, theory of measurement.

438/538 ADVANCED ENGINEERING MATHEMATICS I *3 credits*
Prerequisites: 235 and 312 or permission. Matrices, eigenvalue problems, systems of ODEs, vector analysis, complex variables.

439/539 ADVANCED ENGINEERING MATHEMATICS II *3 credits*
Prerequisites: 235 and 312 or permission. Special functions, Fourier series and transforms, PDEs.

441/541 CONCEPTS IN GEOMETRY *4 credits*
Prerequisite: 222 or permission of instructor; 307 is recommended. Axiomatic treatment of both Euclidean and non-Euclidean geometries. Other concepts included are finite geometry, transformations, constructions and inversions.

442/542 PROJECTIVE GEOMETRY *3 credits*
Prerequisite: 222 or permission. Complex projective planes, duality, homogeneous coordinates, 1-1 correspondence, cross ratios, harmonic ranges, conics, quadrilaterals, quadrangles, applications to Euclidean geometry, quadric surfaces.

445/545 INTRODUCTION TO TOPOLOGY *3 credits*
Prerequisite: 307 or permission of instructor. Introduction to topological spaces and topologies, mappings, cardinality, homeomorphisms, connected spaces, metric spaces.

489/589 TOPICS IN MATHEMATICS *1-3 credits*
(May be repeated for a total of six credits) Prerequisite: permission of instructor. Selected topics in mathematics and applied mathematics at an advanced level.

491/591 WORKSHOP IN MATHEMATICS *1-3 credits*
(May be repeated) Group studies of special topics in mathematics and statistics. May not be used to meet undergraduate or graduate major requirements in mathematics and statistics. May be used for elective credit only.

497 INDIVIDUAL READING *1-2 credits*
Prerequisites: senior standing and permission. Mathematics majors only. Directed studies designed as an introduction to research problems, under guidance of selected faculty member.

498 SENIOR HONORS PROJECT *1-3 credits*
Prerequisite: 489 (honors). Directed study for senior student in the Honors Program who has completed 489 (honors). An introduction to research problems in mathematical sciences under the guidance of selected faculty.

COMPUTER SCIENCE 3460:

125 DESCRIPTIVE COMPUTER SCIENCE *2 credits*
Computer literacy: terminology; methods, media for data representation, storage; elements of a computing system; data organization.

126 INTRODUCTION TO BASIC PROGRAMMING *3 credits*
Prerequisite: 3450:100 or placement. Windows GUI and Microsoft's Visual BASIC programming environment. Design of user interfaces, event-driven programming, basic control structures, simple variables, arrays, and sequential files.

127 COMPUTERS IN TODAY'S WORLD *3 credits*
Introduction to nature of computers and their capabilities. Special attention given to topics such as effects of computer on privacy, employment and education; ethics in computer community; potential for computer crime. Designed for non-majors.

201-8 INTRODUCTION TO PROGRAMMING LANGUAGES *3 credits each*
Introduction to syntax and semantics of programming languages: assignment statement and arithmetic, control statements and loops, input/output, subprograms.

201 INTRODUCTION TO FORTRAN PROGRAMMING *3 credits*
Prerequisites: 3450:145 or 149 or equivalent. Does not meet computer science major, minor and/or certificate requirements.

202 INTRODUCTION TO COBOL PROGRAMMING *3 credits*
Prerequisites: 3450:145 or 149 or equivalent. Does not meet computer science major, minor and/or certificate requirements.

205 INTRODUCTION TO PASCAL PROGRAMMING *3 credits*
Prerequisites: 3450:145 or 149 or equivalent. Does not meet computer science major, minor and/or certificate requirements.

206 INTRODUCTION TO C PROGRAMMING *3 credits*
Prerequisites: programming experience and 3450:145 or 149. Provides the student with additional programming skills allowing access to assembly or high-level macros.

208 INTRODUCTION TO C++ PROGRAMMING *3 credits*
Prerequisites: knowledge of C. Introduction to class types and data abstraction. In addition, memory management and dynamic memory allocation will be discussed.

209 INTRODUCTION TO COMPUTER SCIENCE *4 credits*
Prerequisite: 3450:145, 149 or equivalent. An introduction to problem-solving methods and algorithm development. Programming in a high-level language including how to design, code, debug and document programs using techniques of good programming style.

210 DATA STRUCTURES AND ALGORITHMS I *4 credits*
Prerequisites: 209 and 3450:208. Dynamic memory allocation methods, elementary data structures, internal representations, and associated algorithms. Topics include lists, stacks, queues, trees, and sorting methods.

289 SELECTED TOPICS IN COMPUTER SCIENCE *1-3 credits*
Prerequisite: permission. Selected topics of interest in computer science.

302 PROGRAMMING APPLICATIONS WITH COBOL *3 credits*
Prerequisite: 210. Applications of COBOL, JCL and file manipulation; intended to introduce business data processing techniques to the business option computer science major. Does not meet major requirements for mathematics option computer science students.

306 ASSEMBLY LANGUAGE PROGRAMMING *3 credits*
Prerequisite: 210. Basic computer organization and data representation. Programming in assembly language on a typical digital computer Subroutine linkage and macro instructions.

307 APPLIED SYSTEMS PROGRAMMING *3 credits*
Prerequisite: 306. Design and implementation of assemblers, linkers, loaders and macro processors. Introduction to compilers.

316 DATA STRUCTURES AND ALGORITHMS II *3 credits*
Prerequisites: 210 and 3450:221 or 3450:215. A continuation of topics in 210. Topics include: graphs and graph algorithms, external sorting, hashing, advanced tree and file structures.

330 SURVEY OF PROGRAMMING LANGUAGES *3 credits*
Prerequisite: 210 or programming experience in a high-level block-structured procedural programming language. An introduction to programming in C and LISP for experienced programmers. (Not to be used to satisfy minor or certificate requirements in the Department of Mathematical Sciences.)

401/501 FUNDAMENTALS OF DATA STRUCTURES *3 credits*
Prerequisites: programming experience in C. Basic data structures and algorithms, sorting and search algorithms. Data abstraction and algorithm analysis. (Not an approved major, minor, or certificate elective in computer science.)

406/506 INTRODUCTION TO C AND UNIX *3 credits*
Prerequisite: programming experience. Syntax of C with flow structures, pointers, and command line concepts. For UNIX, shell scripts, UNIX file structure, system calls and interprocess communication protocols. (Not an approved mathematical sciences major, minor, or certificate elective.)

408/508 WINDOWS PROGRAMMING *3 credits*
Prerequisites: 208 or 210 or 406 or 506 or permission. Windows operating systems, integrated development environment, event-driven programming, graphical user interface design, object libraries, component object model, object linking, embedding, client-server objects.

418/518 INTRODUCTION TO DISCRETE STRUCTURES *3 credits*
Prerequisite: 210 or permission. Introduction to a number of structures in algebra of particular use to student in computer science. Topics include algorithms and flow chart language, graphs and digraphs, trees, lattices codes.

420/520 STRUCTURED PROGRAMMING *3 credits*
Prerequisite: 316 and 418. Techniques of block programming using a structured programming language, program readability, program verification and program design.

421/521 INTRODUCTION TO OBJECT-ORIENTED PROGRAMMING *3 credits*
Prerequisite: 316. Object-oriented design, analysis, and programming using different development models. Comparison with other programming paradigms.

426/526 OPERATING SYSTEMS *3 credits*
Prerequisites: 306 and 316, or 501, or equivalents. Introduction to various types of operating systems: batch processing systems, multiprogramming systems and interacting processes: storage management; process and resource control; deadlock problem. Course is independent of any particular operating system.

428/528 UNIX SYSTEM PROGRAMMING *3 credits*
Prerequisite: 316 and knowledge of C. An overview of the UNIX operating system. Shell programming. Process management, processor management, storage management, scheduling algorithms, resource protection, and system programming.

430/530 THEORY OF PROGRAMMING LANGUAGES *3 credits*
Prerequisite: 316. Advanced concepts underlying programming languages and their applications, formal definitions of programming languages, Backus Normal Form, semantics. Alternative programming paradigms including functional programming.

435/535 ANALYSIS OF ALGORITHMS *3 credits*
Prerequisites: 316 and 418. Design and analysis of efficient algorithms for random access machines; derivation of pattern classification algorithms.

440/540 COMPILER DESIGN *3 credits*
Prerequisites: 307 and 316. Techniques used in writing and modifying compilers including translation, loading, execution, symbol tables and storage allocation; compilation of simple expressions and statements. Organization of a compiler for handling lexical scan, syntax scan, object code generation, error diagnostics and code optimization. Use of compiler writing languages and boot-strapping. The course requires a project involving compiler writing.

455/555 DATA COMMUNICATION AND COMPUTER NETWORKS *3 credits*
Prerequisites: 210 and knowledge of C. ISO-OSI, TCP/IP, SNA data switching, protocols, flow and error control, routing, topology, Network trends, network taxonomies, and socket-based programming.

457/557 COMPUTER GRAPHICS *3 credits*
Prerequisite: 316 and knowledge of C. Topics in vector graphics, scan line graphics, representations and languages for graphics.

460/560 ARTIFICIAL INTELLIGENCE AND HEURISTIC PROGRAMMING *3 credits*
Prerequisite: 316. Study of various programs which have displayed some intelligent behavior. Exploration of level at which computers can display intelligence.

465/565 COMPUTER ORGANIZATION *3 credits*
Prerequisite: 306. An introduction to the hardware organization of the computer at the register, processor and systems level. An in-depth study of the architecture of a particular computer systems family.

467/567 MICROPROCESSOR PROGRAMMING AND INTERFACING *3 credits*
Prerequisites: 306, 316. Detailed study of a particular microprocessor architecture and instruction set. Standard device interface components. Real time programming concepts.

470/570 AUTOMATA, COMPUTABILITY AND FORMAL LANGUAGES *3 credits*
Prerequisite: 418. Presentation of theory of formal languages and their relation to automata. Topics include description of languages; regular context-free and context-sensitive grammars; finite, pushdown and linear-bounded automata; turing machines; closure properties; computational complexity, stack automata and decidability.

475/575 DATABASE MANAGEMENT *3 credits*
Prerequisite: 316. Fundamentals of database organization, data manipulations and representation, data integrity, privacy.

477/577 INTRODUCTION TO PARALLEL PROCESSING *3 credits*
Prerequisites: 316 and knowledge of C. Commercial processors: past and present. Parallel languages, models of parallel computation, parallel algorithm design and performance evaluation. Parallel paradigms with relation to real world applications.

480/580 INTRODUCTION TO SOFTWARE ENGINEERING AND FORMAL METHODS *3 credits*
Prerequisite: 316. Introduction to formal software specification and validation. Introduction of methodologies and tools of design, development and validation, and maintenance.

489/589 TOPICS IN COMPUTER SCIENCE *1-3 credits*
(May be repeated for a total of six credits) Prerequisite: permission of instructor. Selected topics in computer science at an advanced level.

491/591 WORKSHOP IN COMPUTER SCIENCE *1-3 credits*
Group studies of special topics in computer science. May not be used to meet graduate or undergraduate requirements in mathematics, statistics or computer science.

497/597 INDIVIDUAL READING IN COMPUTER SCIENCE *1-3 credits*
(May be repeated) Prerequisite: permission. Computer science major only. Directed studies designed as introduction to research problems, under guidance of designated faculty member.

498 SENIOR HONORS PROJECT *1-3 credits*
Prerequisite: 489 (honors). Directed study for senior student in the Honors Program who has completed 3460:489. An introduction to research problems in the mathematical sciences under the guidance of selected faculty.

STATISTICS

3470:

260 BASIC STATISTICS *3 credits*
Prerequisite: Mathematics Placement Test or 3450:100. Applied approach to data description and statistical inference (hypothesis testing, estimation). Analysis of ratios, rates, and proportions. Computer applications. Laboratory.

261 INTRODUCTORY STATISTICS I *2 credits*
Prerequisite: Mathematics Placement Test. Descriptive statistics, tabular and graphical data displays; probability, probability distributions. Introduction to statistical inference (hypothesis testing, estimation); one-sample parametric and nonparametric methods. Computer applications.

262 INTRODUCTORY STATISTICS II *2 credits*
Prerequisite: 261 or equivalent. Parametric and nonparametric methods of statistical inference for paired data and two-sample problems; one-way ANOVA, simple linear regression and correlation. Computer applications.

289 SELECTED TOPICS IN STATISTICS *1-3 credits*
Prerequisite: Permission. Selected topics of interest in statistics.

415/515 MATHEMATICAL CONCEPTS FOR STATISTICS *4 credits*
Prerequisites: 3450:223, 3450:312, or equivalent. Topics from matrix algebra and analysis: quadratic forms, eigenvalues and roots, generalized inverses, vector functions, continuity, differentiation, extrema problems, multivariate integration, infinite series, and application. May not be used to meet graduate degree requirements for Mathematical Sciences majors.

450/550 PROBABILITY *3 credits*
Prerequisite: 3450:221. Introduction to probability, random variables and probability distributions, expected value, sums of random variables, Markov processes.

451,2/551,2 THEORETICAL STATISTICS I AND II *3 credits each*
Sequential. Prerequisite: 3450:223. Elementary combinatorial probability theory, probability distributions, mathematical expectation, functions of random variables, sampling distributions, point and interval estimation, tests of hypotheses, regression and correlation, introduction to experimental designs.

460/560 STATISTICAL METHODS *4 credits*
Application of statistical methods to the social sciences including descriptive statistics, probability distributions, statistical inference (parametric, nonparametric), categorical data analysis, linear regression, correlation, computer applications. May not be used to meet Mathematical Sciences degree requirements.

461/561 APPLIED STATISTICS I *4 credits*
Prerequisite: 3450:222 or 216 or equivalent. Applications of statistical theory to natural and physical sciences and engineering, including probability distributions, interval estimation, hypotheses testing (parametric and nonparametric), and simple linear regression and correlation.

462/562 APPLIED STATISTICS II *4 credits*
Prerequisite: 461/561 or equivalent. Applications of the techniques of regression and multifactor analysis of variance.

465/565 DESIGN OF SAMPLE SURVEYS *3 credits*
Prerequisite: 461/561 or equivalent. Design and analysis of frequently used sample survey techniques.

469/569 RELIABILITY MODELS *3 credits*
Prerequisite: 461/561. Selected topics in reliability modeling including parametric and nonparametric models, competing modes of failure, censored data and accelerated life models.

471/571 ACTUARIAL SCIENCE I *3 credits*
Prerequisite: 451/551 or 461/561 or equivalent. Study of various statistical, financial, and mathematical calculations used to determine insurance premiums related to contingent risks based on individual risk model frameworks.

472/572 ACTUARIAL SCIENCE II *3 credits*
Prerequisite: 471/571. Continuation of Actuarial Science I. Study of multiple life functions, multiple decrement models, valuation theory for pension plans, insurance models including expenses, nonforfeiture benefits and dividends.

475/575 FOUNDATIONS OF STATISTICAL QUALITY CONTROL *3 credits*
Prerequisite: 461/561 or equivalent. Course provides a solid foundation in the theory and applications of statistical techniques widely used in industry.

480/580 STATISTICAL COMPUTER APPLICATIONS *3 credits*
Prerequisites: 3450:222 and one semester course in statistics or permission. Translation of statistical operations into computer languages, iterative procedures, generating data, Monte Carlo techniques, use of statistical packages.

489/589 TOPICS IN STATISTICS *1-3 credits*
(May be repeated for a total of six credits) Prerequisite: permission. Selected topics in advanced statistics, including quality control, reliability, sampling techniques, decision theory, advanced inference, stochastic processes and others.

491/591 WORKSHOP IN STATISTICS *1-3 credits*
(May be repeated with change of topic) Group studies of special topics in statistics. May not be used to meet undergraduate or graduate major requirements in mathematics and statistics. May be used for elective credit only.

495/595 STATISTICAL CONSULTING *1-3 credits*
Prerequisite: 480/580 or permission. Students will be assigned to work with an instructor on current projects in the Center for Statistical Consulting. May be repeated for a total of 4 credits; however, only 2 credits will count toward major requirements. Does not count for elective credit for Mathematical Sciences majors.

497 INDIVIDUAL READING *1-2 credits*
(May be repeated for a total of four credits) Prerequisites: senior standing and permission. Directed studies in statistics designed as introduction to research problems under guidance of selected faculty member.

498 SENIOR HONORS PROJECT *1-3 credits*
Prerequisite: 489 (honors). Directed study for senior student in the University Honors Program who has completed 3450:489 (honors). An introduction to research problems in the mathematical sciences under the guidance of selected faculty.

MODERN LANGUAGES

3500:

PLACEMENT PROCEDURES FOR NEW STUDENT
In lieu of taking the placement test, a student with two years or less of a foreign language in high school may register in 101; a student with three years in high school and average grades should register for 102; a student with three years and above average grades (B+ or A) should register for 201; a student with four years in high school should register for 202. For placement in third-year courses or higher, department permission is required.

101,2 BEGINNING MODERN LANGUAGE I AND II *4 credits each*
(May be repeated for a different language) Sequential. Reading, speaking, writing and listening comprehension; intensive drill in pronunciation; short stories, outside reading and supplementary work in language laboratory.

201,2 INTERMEDIATE MODERN LANGUAGE I AND II *3 credits each*
(May be repeated for a different language) Sequential. Prerequisite: 102 or equivalent. Grammar review, practice in reading, writing, speaking and listening comprehension; short stories, plays, novels on intermediate level.

320 FRENCH CANADIAN LITERATURE IN TRANSLATION *3 credits*
Prerequisite: French major and minors only; 3520:306. Reading and discussion of English translations of French Canadian Literature. French majors and minors must read original French version and do all writing in French.

422 MODERN LANGUAGES: SPECIAL TOPICS IN ADVANCED LANGUAGE SKILLS, OR CULTURE, OR LITERATURE *1-4 credits*
Prerequisite: Modern Languages 202 or equivalent. Development of specialized language skills or reading of significant works of literature or culture not studied in other courses.

490/590 WORKSHOP *2 credits*
(May be repeated) Group studies of special topics in modern languages.

498 SENIOR HONORS PROJECT IN MODERN LANGUAGES *1-3 credits*
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors Program and permission. Open only to language major enrolled in Honors Program. Independent study leading to completion of senior honors thesis or other original work.

FRENCH

3520:

101,2 BEGINNING FRENCH I AND II *4 credits each*
Sequential. Thorough study of sound system and basic structural patterns of French language, including oral practice and reading of simple prose. A placement test is required.

201,2 INTERMEDIATE FRENCH I AND II *3 credits each*
Sequential. Prerequisite: 102 or equivalent. Audio-oral sections. Practice in reading, writing, speaking and listening comprehension. Grammar review, short stories, plays and novels on intermediate level. A placement test is required.

207,8 INTERMEDIATE FRENCH I AND II READING OPTION *3 credits each*
Sequential. Prerequisite: 102 or equivalent. Reading and translation of texts dealing with contrasting French and American customs, values and attitudes.

301,2 FRENCH COMPOSITION AND CONVERSATION *3 credits each*
Sequential. Prerequisite: 202 or equivalent. Free composition, special attention to vocabulary and idioms, development of oral expression and conversational ability. Prerequisite for 302 is 301 or equivalent.

305,6 INTRODUCTION TO FRENCH LITERATURE *3 credits each*
Prerequisite: 202 or equivalent. Survey of French literature from its origins to present, with lectures, reading and class discussion of representative works.

309,10 FRENCH CULTURE AND CIVILIZATION *3 credits each*
Prerequisite: 202 or equivalent. Audio-visual presentation with class discussions of French cultural heritage from its origins to present. Conducted in French.

311 CONTEMPORARY FRENCH SOCIETY *3 credits*
Prerequisite: 202 or equivalent. A study of contemporary French society, including customs and political and social issues. Conducted in French. Counts toward Culture and Civilization requirement for major.

312 INDIVIDUAL SUMMER STUDY ABROAD *2 credits*
Prerequisites: 202 or equivalent and permission of instructor.

313 FRENCH CIVILIZATION AS SEEN IN THE MOVIES *3 credits*
Prerequisites: 302 (for majors). Study and discussion of various aspects of French culture and civilization as characterized in movies. Conducted in French (films, papers, and discussion). Prerequisite is 302 if course is to count toward French major. Non-majors may choose to write papers in English.

315 FRENCH PHONETICS *3 credits*
Prerequisite or corequisite: 202 or equivalent. Intensive drill in pronunciation with correction and improvement of student's accent, emphasis on articulation, intonation and rhythm.

350 THEMES IN FRENCH LITERATURE IN TRANSLATION *3 credits*
Prerequisite: 3400:210. (May not be taken for credit toward the French major) Readings, discussion of novels and plays relating to selected themes of French literature. Texts and discussion in English.

351 TRANSLATION: FRENCH *3 credits*
Prerequisite: 202 or equivalent. Study of translation techniques, both French to English and English to French. Emphasis on stylistics and interpretation of idioms.

352 TRANSLATION: BUSINESS FRENCH *3 credits*
Prerequisite: 351 or equivalent. Application of translation techniques with particular stress on business styles, formats, and vocabulary. Especially recommended for students interested in international business.

402/502 ADVANCED FRENCH GRAMMAR *3 credits*
Prerequisite: 302 or equivalent. Advanced study of normative French grammar with emphasis on syntax, morphology, grammatical structure and phonetic principles.

403,4 ADVANCED FRENCH COMPOSITION AND CONVERSATION *3 credits each*
Prerequisite: 302 or equivalent. Thorough analysis of syntax, morphology, phonetic principles and grammatical structure.

407/507 FRENCH LITERATURE OF THE MIDDLE AGES AND THE RENAISSANCE *4 credits*
Prerequisite: 305 or 306 or equivalent. Reading and discussion of selected Medieval and Renaissance literary works. Conducted in French.

411/511 17TH CENTURY FRENCH LITERATURE *4 credits*
Prerequisite: 305 or 306 or equivalent. Reading and discussion of selected works in poetry, drama and novels. Conducted in French.

415/515 18TH CENTURY FRENCH LITERATURE *4 credits*
Prerequisite: 305 or 306 or equivalent. Reading and discussion of selected authors: emphasis on the Philosophies. Conducted in French.

419/519 19TH CENTURY FRENCH LITERATURE *4 credits*
Prerequisite: 305 or 306 or equivalent. Reading and discussion of selected works pertaining to romantic, realistic and naturalistic movements. Conducted in French.

422 FRENCH: SPECIAL TOPICS IN ADVANCED LANGUAGE SKILLS, OR CULTURE, OR LITERATURE *1-4 credits*
Prerequisite: 202 or equivalent. (May be repeated) Development of specialized language skills or reading of significant works of literature or culture not studied in other courses.

427/527 20TH CENTURY FRENCH LITERATURE *4 credits*
Prerequisite: 305 or 306 or equivalent. Reading and discussion of the most representative works of period. Conducted in French.

429/529 FRANCOPHONE CARIBBEAN LITERATURE *3 credits*
Prerequisites: 305 or 306 or equivalent. A study of selected literary works from Haiti, Guadeloupe, and Martinique in light of their geographic, historic, socioethnic, and cultural determinants.

450/550 EXPLICATION DE TEXTES *3 credits*
Prerequisite: 302 or equivalent. Study of traditional French method of literary analysis based on passages of representative authors from selected periods of French literary history.

460/560 SELECTED THEMES IN FRENCH LITERATURE *3 credits*
Prerequisite: 305 or 306 or equivalent. (May be repeated.) Conducted in French. Prerequisite: 302 and 306 or equivalents. Reading and discussion of literary works selected according to an important theme.

471/571 FRENCH LANGUAGE READING PROFICIENCY *4 credits*
Designed to develop proficiency in reading comprehension. Prepares students for graduate reading examination. Does not count toward French major.

497,8 INDIVIDUAL READING IN FRENCH *1-3 credits each*
Prerequisite: 202 and permission of department chair.

GERMAN

3530:

101,2 BEGINNING GERMAN I AND II *4 credits each*
Sequential. Reading, speaking, writing and listening comprehension; intensive drill in pronunciation; short stories, outside reading and supplementary work in language laboratory.

201,2 INTERMEDIATE GERMAN I AND II *3 credits each*
Sequential. Prerequisite: 102 or equivalent. Grammar review, reading, writing, speaking, listening comprehension; short stories, plays, novels on intermediate level; outside reading and supplementary work in language laboratory.

207,8 INTERMEDIATE GERMAN I AND II READING OPTIONS *3 credits each*
Sequential. Prerequisites: 102 or equivalent and permission. Reading of German texts in culture and civilization, discussion in English, translation and grammatical analysis. Not open to majors.

250 20TH CENTURY GERMAN LITERATURE IN TRANSLATION *2 credits*
Reading and discussion of works of Mann, Rilke, Hesse, Kafka, Benn, Brecht, Frisch, Durrenmatt, Borchert and Grass. May not be taken for credit toward the major in German.

251 19TH CENTURY GERMAN LITERATURE IN TRANSLATION *2 credits*
Reading and discussion of works in Kleist, Heine, Hebbel, Keller, Storm, Meyer and Hauptmann. May not be taken for credit toward the German major.

252 AGE OF GOETHE IN TRANSLATION *2 credits*
Reading and discussion of representative drama, prose and poetry of Lessing, Goethe and Schiller. May not be taken for credit toward the German major.

301 GERMAN CONVERSATION AND COMPOSITION *3 credits each*
Prerequisite: 202 or equivalent. Advanced composition using German models, special attention to words and idioms, development of oral expression and conversational ability.

302 GERMAN CONVERSATION AND COMPOSITION: SPECIAL TOPICS *3 credits each*
Prerequisite: 202 or equivalent or permission of instructor. May be repeated for credit. Special attention to development of oral expression and conversational ability.

305,6 INTRODUCTION TO GERMAN LITERATURE *3 credits each*
Prerequisite: 202 or equivalent. Introduction to study of German literature. Reading and class discussion of representative works. Conducted in German.

350 BODIES AND MACHINES: TECHNOLOGY AND GERMAN CULTURE SINCE 1871 *3 credits*
The impact of industrialization and the growing role of technology on German society as documented in literary texts, essays, film and other forms of art. Conducted in English.

351,2 TRANSLATION: GERMAN *3 credits each*

403,4 ADVANCED GERMAN CONVERSATION AND COMPOSITION *3 credits each*
Prerequisite: 302 or equivalent. Thorough analysis of syntax, morphology, phonetic principles and grammatical structure.

406,7 GERMAN CULTURE AND CIVILIZATION *3 credits each*
Prerequisite: 302 or 306 or equivalent. Particular emphasis on customs, traditions, literary trends and artistic tendencies that constitute German's contribution to Western civilization.

419/519 THE AGE OF GOETHE I *3 credits*
Prerequisite: 302 or 306 or permission. Enlightenment and generation of Sturm und Drang, including works of Wieland, Lessing, Kloptock, Herder, the young Goethe and others. Conducted in German.

420/520 THE AGE OF GOETHE II *3 credits*
Prerequisites: 302, 306 or permission. Faust, selections from parts I and II. Ballads of Goethe and Schiller. Conducted in German.

422 GERMAN: SPECIAL TOPICS IN ADVANCED LANGUAGE SKILLS, OR CULTURE, OR LITERATURE *1-4 credits*
Prerequisite: 202 or equivalent. (May be repeated) Development of specialized language skills or reading of significant works of literature or culture not studied in other courses.

431/531 200 YEARS OF GERMAN DRAMA *3 credits*
Prerequisite: 302 or 306 or permission. Representative works of major classical dramatics including Lessing, Goethe, Schiller, Kleist, Grillparzer. Conducted in German.

432/532 200 YEARS OF GERMAN DRAMA *3 credits*
Prerequisite: 302 or 306 or permission. Representative works of the major dramatists, Buchner, Hebbel, Hauptmann and Wedekind. Conducted in German.

435/535 GERMAN SHORT STORY *3 credits*
Prerequisite: 302 or 306 or permission. Reading and discussion of representative works of German romanticism, including those of Tieck, Kleist, E. T. A. Hoffman, Brentano, Eichendorff. Conducted in German.

436/536 GERMAN SHORT STORY *3 credits*
Prerequisite: 302 or 306 or permission. Reading and discussion of works representative of the period, including those of Droste-Hulshoff, Stifter, Keller, Meyer, Storm. Conducted in German.

439/539 20TH CENTURY LITERATURE I *3 credits*
Prerequisite: 302 or 306 or permission. Clash of the old and the new at the turn of the century. Works of T. Mann, Hauptmann, Kaiser, Hofmannsthal, Rilke, Wedekind and others. Conducted in German.

440/540 20TH CENTURY GERMAN LITERATURE II *3 credits*
Prerequisite: 302 or 306 or permission. Impact of modernity. Reading and discussion of writings of Hesse, Kafka, Doblin, Werfel and others. Conducted in German.

471/571 GERMAN LANGUAGE READING PROFICIENCY *4 credits*
Designed to develop proficiency in reading comprehension.

497,8 INDIVIDUAL READING IN GERMAN *1-3 credits each*
Prerequisite: 202 and permission of department chair.

ITALIAN

3550:

101,2 BEGINNING ITALIAN I AND II *4 credits each*
Sequential. Reading, speaking, writing and listening comprehension; intensive drill in pronunciation; short stories, outside reading and supplementary work in language laboratory.

201,2 INTERMEDIATE ITALIAN I AND II *3 credits each*
Sequential. Prerequisite: 102 or equivalent. Grammar review, practice in reading, writing, speaking and listening comprehension; short stories, plays, novels on intermediate level; outside reading and supplementary work in language laboratory.

207,8 INTERMEDIATE ITALIAN I AND II READING OPTION *3 credits each*
Sequential. Prerequisite: 102 or equivalent. Readings cover various aspects of Italian culture through the centuries, with particular emphasis on history, literature, art and contemporary Italian way of life as compared with American one.

250 GENIUS OF ITALIAN LITERATURE IN TRANSLATION *2 credits*
Reading and discussion of works of Dante, Petrarca, Boccaccio, Ariosto, Machiavelli, Cellini, Tasso, Bruno and Pirandello De Filippo.

301,2 ITALIAN COMPOSITION AND CONVERSATION *3 credits each*
Prerequisite: 202 or equivalent. Italian composition using Italian models, special attention to words and idioms and development of oral expression and conversational ability.

305,6 INTRODUCTION TO LITERATURE *3 credits each*
Prerequisite: 202 or equivalent. Introduction to study of Italian literature. Reading and class discussion in Italian of representative works.

422 ITALIAN: SPECIAL TOPICS IN ADVANCED LANGUAGE SKILLS, OR CULTURE, OR LITERATURE *1-4 credits*
Prerequisite: 202 or equivalent. (May be repeated) Development of specialized language skills or reading of significant works of literature or culture not studied in other courses.

497 INDIVIDUAL READING IN ITALIAN *1-3 credits*
Prerequisite: 202 and permission of the department chair.

RUSSIAN

3570:

101,2 BEGINNING RUSSIAN I AND II *4 credits each*
Reading, speaking, writing, and understanding; intensive drill in pronunciation and supplementary work in language laboratory.

201,2 INTERMEDIATE RUSSIAN I AND II *3 credits each*
Prerequisite: 102 or equivalent. Grammar review, practice in reading, writing, speaking; short stories, novels on intermediate level; outside reading and supplementary work in language laboratory.

207,8 INTERMEDIATE RUSSIAN I AND II READING OPTION *3 credits each*
Sequential. Prerequisite: 102 or equivalent. Reading of texts in Russian dealing with culture of Russian-speaking people. Discussion of content of these texts in English along with review of grammar to extent necessary for accurate understanding of texts. Not open to majors.

301,2 RUSSIAN COMPOSITION AND CONVERSATION *3 credits each*
Prerequisite: 202 or equivalent. Advanced composition using Russian models, special attention to words and idioms; development of oral expression and conversational ability.

305,6 INTRODUCTION TO RUSSIAN LITERATURE *3 credits each*
Prerequisite: 202 or equivalent. Reading and class discussion in Russian of representative works.

309,10 RUSSIAN CIVILIZATION AND CULTURE *3 credits each*
Prerequisite: 202 or equivalent. Reading and discussion of Russian texts relating to developments in Russian civilization and culture.

351,2 TRANSLATION: RUSSIAN *3 credits each*

403,4 ADVANCED RUSSIAN COMPOSITION AND CONVERSATION *3 credits each*
Prerequisite: 302 or equivalent. Thorough analysis of syntax, morphology, phonetic principles and grammatical structure.

411,2 SCIENTIFIC RUSSIAN *3 credits each*
Prerequisite: 202 or equivalent. Intensive reading of scientific articles in chemistry, physics, mathematics, biology and medicine.

420,1 RUSSIAN LITERATURE OF THE 19TH CENTURY: ROMANTICISM AND REALISM *3 credits each*
Prerequisites: 301 or 302 or permission. Readings from representative authors such as Pushkin, Lermontov, Gogoi, Turgenev, Dostoyevsky, Tolstoy, Goncharov and others.

422 RUSSIAN: SPECIAL TOPICS IN ADVANCED LANGUAGE SKILLS, OR CULTURE, OR LITERATURE *1-4 credits*
Prerequisite: 202 or equivalent. (May be repeated) Development of specialized language skills or reading of significant works of literature or culture not studied in other courses.

427,8 RUSSIAN LITERATURE OF THE 20TH CENTURY *3 credits each*
Prerequisite: 202 or equivalent. Reading and discussion of selected literary works from Gorky to Solzhenitsyn.

439 ADVANCED RUSSIAN SYNTAX, GRAMMAR AND CONVERSATION *3 credits*
Prerequisite: 404 or equivalent. Advanced work in composition, translation into Russian and idiomatic use of the spoken language.

497,8 INDIVIDUAL READING IN RUSSIAN *1-3 credits each*
Prerequisite: 202 and permission of the department chair.

SPANISH

3580:

101,2 BEGINNING SPANISH I AND II *4 credits each*
Sequential. Reading, speaking, writing and listening comprehension; intensive drill in pronunciation; short stories, outside reading and supplementary work in language laboratory.

201,2 INTERMEDIATE SPANISH I AND II *3 credits each*
Sequential. Prerequisite: 102 or equivalent. Grammar review, practice in reading, writing, speaking and listening comprehension; short stories, plays novels on intermediate level; outside reading and supplementary work in language laboratory.

301 SPANISH CONVERSATION *3 credits*
Prerequisite: 202 or equivalent. Development of oral expression, listening comprehension and conversational ability.

302 SPANISH COMPOSITION *3 credits*
Prerequisite: 202 or equivalent. Development of writing skills through intensive practice and study of written expression in Spanish. Conducted in Spanish.

303 SPANISH GRAMMAR *3 credits*
Prerequisite: 202 or equivalent. Post-intermediate review and study of grammar and basic principles of grammatical analysis. Conducted in Spanish.

311 SPANISH/SPANISH-AMERICAN CULTURAL EXPERIENCE *1-2 credits*
Prerequisite: permission. Student's residence and/or independent study in Spanish-speaking country which results in demonstrable assimilation of country's culture may earn a maximum of two credits.

340 INTRODUCTION TO SPANISH AND SPANISH-AMERICAN LITERATURE *3 credits*
Prerequisite: 301 or 302 or instructor's permission. Reading and discussion of Spanish and Spanish-American literature of all genres. Introduction to the fundamentals of literary criticism and literary movements. Conducted in Spanish.

350 THE LITERATURE OF SPANISH-AMERICA IN TRANSLATION *3 credits*
Prerequisites: 3400:210. (May not be taken for credit toward the Spanish major.) Reading, discussion of novels, short stories of major Spanish-American. Texts and discussion in English.

351 SPANISH FOR PROFESSIONALS: BUSINESS *3 credits*
Prerequisites: 302 or instructor's permission. Study of business terminology as well as cultural factors affecting the conduct of business with Hispanic nations and populations. Conducted in Spanish.

401 ADVANCED CONVERSATION *3 credits each*
Prerequisites: 301 or equivalent. Development of speaking skills at a level beyond that achieved in 301. Conducted in Spanish.

402 ADVANCED COMPOSITION *3 credits each*
Prerequisites: 302 or equivalent. Development of writing skills at a level beyond that achieved in 302. Conducted in Spanish.

403 ADVANCED GRAMMAR *3 credits*
Prerequisite: 303 or equivalent. Advanced study of Spanish syntax and grammatical analysis.

405/505 SPANISH LINGUISTICS: PHONOLOGY *4 credits*
Prerequisite: permissjon. Descriptive study of Spanish phonetics and morphology, comparison of Spanish and English sounds, historical aspects, regional accents and sociolinguistic variation. Conducted in Spanish.

406/506 SPANISH LINGUISTICS: SYNTAX *4 credits*
Prerequisite: permission. Descriptive study of Spanish syntax; introduction to theories of grammar; overview of Spanish semantics and pragmatics. Conducted in Spanish.

407 SURVEY OF HISPANIC LITERATURE: SPAIN *4 credits*
Prerequisites: 301 or 302 or instructor's permission. Study of the most representative works and literary movements in Spain from the Middle Ages to the present. Conducted in Spanish.

408 SURVEY OF HISPANIC LITERATURE: SPANISH AMERICA *4 credits*
Prerequisites: 301 or 302 or or instructor's permission. Study of the most representative works and literary movements in Spanish-America from the Discovery to the present. Conducted in Spanish.

409/509 CULTURAL MANIFESTATIONS IN MEDIEVAL AND RENAISSANCE SPAIN *4 credits*
Prerequisite: 407 or 408 or permission. Comparative study of representative artistic and literary works of the Medieval and Rennaisance periods. Conducted in Spanish.

411/511 SPAIN DURING THE BAROQUE PERIOD *4 credits*
Prerequisite: 407 or 408 or instructor's permission. A comparative study of the different cultural manifestations during the 17th century in Spain. Conducted in Spanish.

412/512 CERVANTES: DON QUIJOTE *4 credits*
Prerequisite: 407 or 408 or instructor's permission. Reading and analysis of Don Quijote as the first modern novel in the historical context of Renaissance and Baroque esthetics. Conducted in Spanish.

415/515 THE AGE OF REASON AND THE ROMANTIC REBELLION IN SPAIN *4 credits*
Prerequisite: 407 or 408 or instructor's permission. Study of the Enlightenment and the Romantic movement as reflected in the works of the major artists and writers of these periods. Conducted in Spanish.

416/516 REPRESENTING REALITY IN 19TH CENTURY SPAIN *4 credits*
Prerequisite: 407 or 408 or instructor's permission. A comparative study of the major literary and artistic movements in Spain from Realism to Modernism. Conducted in Spanish.

418/518 20TH CENTURY SPAIN: THE AVANT-GARDE IN LITERATURE AND ART *4 credits*
Prerequisite: 407 or 408 or instructor's permission. A comparative study of the major literary and artistic movements in Spain which illustrate the primary cultural changes of the century. Conducted in Spanish

419/519 THE SPANISH CIVIL WAR AND ITS CULTURAL IMPACT *4 credits*
Prerequisite: 407 or 408 or instructor's permission. Study the impact of the Civil War on Spanish culture.

422/522 SPECIAL TOPICS IN SPECIALIZED LANGUAGE SKILLS, OR CULTURE, OR LITERATURE *1-4 credits*
Prerequisite: 202 or equivalent. (May be repeated) Development of specialized language skills or reading of significant works of literature or culture not studied in other courses.

423/523 SPANISH-AMERICAN LITERATURE BEFORE 1900 *4 credits*
Prerequisite: 407 or 408 or permission. Reading of representative Spanish-American literature from the discovery to 1900. Oral and written reports. Conducted in Spanish.

424/524 RACE AND ETHNICITY: INDIGENOUS CULTURES IN 20TH CENTURY SPAIN *4 credits*
Prerequisite: 407 or 408 or instructor's permission. Traces the diverse representations of indigenous cultures in literature. Takes into account the interactive forces of class, gender, race and ethnic difference. Conducted in Spanish.

425/525 20TH CENTURY SPANISH-AMERICAN NOVEL *4 credits*
Prerequisite: 407 or 408 or instructor's permission. Reading and discussion of representative contemporary Latin American novels. Conducted in Spanish.

427/527 LATINO CULTURES IN THE U.S.A. *4 credits*
Prerequisite: 407 or 408 or instructor's permission. Inquiry into the Latino experience of displacement and marginality through the analysis of cultural manifestations in the U.S.A. Conducted in Spanish.

429/529 CULTURE AND LITERATURE OF THE HISPANIC CARIBBEAN *4 credits*
Prerequisite: 407 or 408 or instructor's permission. Emphasis on customs, traditions, and literature, including lectures, films, slides, and analysis of selected writings by contemporary Hispanic authors from the Caribbean. Conducted in Spanish.

430/530 WOMEN IN 20TH CENTURY HISPANIC LITERATURE *4 credits*
Prerequisite: 407 or 408 or instructor's permission. Reading and analysis of selected works from the 20th Century that depict women in Hispanic countries. Methodologies of feminist criticism will be studied. Conducted in Spanish.

431/531 HISPANIC CULTURE: SPAIN *4 credits*
Prerequisite: 302 or permission. Study of society, customs, history, art, music, etc. of Spain, from a Hispanic perspective. Conducted in Spanish.

432/532 HISPANIC CULTURE: SOUTH AMERICA *4 credits*
Prerequisite: 302 or permission. Study of society, customs, history, art, music, etc. of South America, from a Hispanic perspective. Conducted in Spanish.

433/533 HISPANIC CULTURE: MEXICO AND CENTRAL AMERICA *4 credits*
Prerequisite: 302 or equivalent. Study of society, history, and culture of Mexico, Central America and the Hispanic Carribean, from a Hispanic perspective. Conducted in Spanish.

471/571 SPANISH LANGUAGE READING PROFICIENCY *4 credits*
Designed to develop proficiency in reading comprehension.

497 INDIVIDUAL READING IN SPANISH *1-3 credits*
Prerequisite: 202 and permission of department chair.

PHILOSOPHY

3600:

101 INTRODUCTION TO PHILOSOPHY *3 credits*
Introduction to philosophic problems and attitudes through acquaintance with thoughts on some leading thinkers of Western tradition.

120 INTRODUCTION TO ETHICS *3 credits*
Introduction to problems of moral conduct through readings from the tradition and class discussions; nature of "good," "right," "ought" and "freedom."

125 THEORY AND EVIDENCE *3 credits*
An investigation of the concept of evidence and the criteria for the evaluation of theories in various areas of study including the natural sciences, the social sciences and philosophy. The role of scientific information in the formation and justification of value judgments.

170 INTRODUCTION TO LOGIC *3 credits*
Introduction to logic and critical thinking. Includes such topics as meaning, informal fallacies, propositional logic, predicate and syllogistic logic and nature of induction.

211 HISTORY OF ANCIENT PHILOSOPHY *3 credits*
History and development of ancient Greek philosophy from pre-Socrates to Aristotle. Readings of primary sources in translation.

216 AMERICAN PHILOSOPHY *3 credits*
Prerequisite: one course in philosophy or permission of instructor. Movement of ideas in American from Royce to present.

232 PHILOSOPHY OF RELIGION *3 credits*
Prerequisite: one philosophy course. Discussion, analysis of problems of theology, nature of religious experience; God's nature, existence; immortality, sin, faith, reason; holy revelation, redemption.

280 SOPHOMORE TOPICS IN PHILOSOPHY *1-3 credits*
(May be repeated for a total of six credits) Prerequisite: permission of instructor. Selected topics in philosophy at the sophomore level.

312 HISTORY OF MEDIEVAL PHILOSOPHY *3 credits*
History of Western philosophy from end of Roman Empire to Renaissance. Major philosophers studied include St. Augustine, St. Anselm, Peter Abelard, St. Thomas Aquinas, Duns Scotus and William of Ockham. Readings from primary sources.

313 HISTORY OF MODERN PHILOSOPHY *3 credits*
Analysis of major philosophical issues of 17th and 18th Centuries from Descartes through Kant. Readings of primary sources in translation.

314 19TH CENTURY PHILOSOPHY *3 credits*
Prerequisite: one course in philosophy or permission of instructor. Inquiry into philosophically significant ideas of Hegel, Marx, Schopenhauer, Mill, Kierkegaard and Nietzsche.

323 ADVANCED TOPICS IN ETHICS *3 credits*
Prerequisite: one course in philosophy or permission of instructor. An examination of selected topics in Ethical Theory such as the Naturalistic Fallacy, Ethical Non-Cognitivism, Prescriptivism, Theories of Rights, Theories of Punishment, Nihilism, Relativism, Moral Skepticism. Specific topics will be announced in the course schedule.

324 SOCIAL AND POLITICAL PHILOSOPHY *3 credits*
Prerequisite: one course in philosophy or permission of instructor. An examination of the normative justification of social, political institutions and practices. Analyses concepts such as rights, justice, equality, political obligation from historical as well as contemporary points of view. Application to particular social issues covered.

332 DIALECTICAL MATERIALISM *3 credits*
Prerequisite: 324 or permission of instructor. Includes Hegelian and other origins as well as its development in writings of Marx, Engels, Lenin and contemporary writers. Focus on metaphysics, social philosophy, philosophy of history, human nature, ethics, aesthetics.

340 EASTERN PHILOSOPHY *3 credits*
Prerequisite: One course in philosophy or permission of instructor. Examination and evaluation of philosophical traditions from India, China and Japan, including Hinduism, Buddhism, Taoism and Confucianism.

350 PHILOSOPHY OF ART *3 credits*
Prerequisite: One course in philosophy or permission of instructor. An examination of theories of the nature of art and the grounds of aesthetic evaluation. Analysis of such concepts as representation, form, content, expression, institution, convention, meaning, truth as they apply in the context of the arts.

355 PHILOSOPHY OF FEMINISM *3 credits*
Prerequisite: One course in philosophy or permission of instructor. Introduction to feminist critiques of, and alternatives to, traditional western philosophy, including topics in ethics, metaphysics, epistemology, and religion.

361 BIOMEDICAL ETHICS *3 credits*
Prerequisites: 101, 120 or 170; or permission of instructor. The identification, analysis and evaluation of ethical issues arising most critically in the biomedical setting, e.g., abortion, termination of treatment, definition of death, IVF, AIDS.

362 BUSINESS ETHICS *3 credits*
Prerequisites: 101, 120 or 170; or permission of instructor. Basic moral theories, moral principles and the decision-making process, applied to issues in business.

363 POLICE ETHICS *3 credits*
Prerequisites: 101, 120 or 170; or permission of instructor. Basic moral concepts and their application to the criminal justice system. Concerned with such issues as punishment, the use of force and conflict resolution.

371 PHILOSOPHY OF MIND *3 credits*
Nature of mind and the relationship between mind and body. Specific topics such as the limits of human reason, personal identity, the role of human thought in action and whether machines can think are also considered.

374 SYMBOLIC LOGIC *3 credits*
Prerequisite: 170 or permission of instructor. Detailed consideration of propositional and first-order predicate logic. Introduction to class logic, modal logics and axiomatics.

380 JUNIOR TOPICS IN PHILOSOPHY *1-3 credits*
(May be repeated for a total of six credits) Prerequisite: permission of instructor. Selected topics in philosophy at the junior level.

390 JUNIOR HONORS COLLOQUIUM *3 credits*
Prerequisite: junior standing in Honors Program or junior honors standing as philosophy major or permission of instructor or nomination by department faculty member. Selected readings, research, writing and defense of one or more philosophical projects. Preparation and foundation for senior honors project in philosophy.

411/511 PLATO *3 credits*
Prerequisite: 211 or permission of instructor. Detailed study of the origin and development of Plato's theory of forms and the related theories of knowledge, ethics and politics.

418/518 ANALYTIC PHILOSOPHY *3 credits*
Prerequisite: One course in philosophy or permission of instructor. Study of ideal and ordinary language movements in 20th Century British and American philosophy. Deals with such figures as Russell, Carnap, Ayer, Moore, Wittgenstein, Ryle and Austen.

419/519 BRITISH EMPIRICISM *3 credits*
Prerequisites: one introductory course and 313 or permission of instructor. Intensive analysis of selected major writings of Locke, Berkeley and Hume.

421/521 PHILOSOPHY OF LAW *3 credits*
Prerequisite: one course in philosophy or permission of instructor. Philosophical inquiry into the nature of law and legal institutions.

422/522 CONTINENTAL RATIONALISM *3 credits*
Prerequisites: one introductory course and 313 or permission of instructor. Intensive analysis of selected major writings of Descartes, Spinoza and Leibnitz.

424/524 EXISTENTIALISM *3 credits*
Prerequisites: one introductory course in philosophy, 314 or permission of instructor. In-depth inquiry into the thought of Kierkegaard, Jaspers, Heidegger, Sartre, Tillich and other existentialists with their concern for the human condition.

426/526 PHENOMENOLOGY *3 credits*
Prerequisites: one introductory course, 314 or permission of instructor. Inquiry into methodology of Husserl and Heidegger and their influence upon Western European and American thought.

432/532 ARISTOTLE *3 credits*
Prerequisites: 211 or permission of instructor. Detailed study of Aristotle's metaphysics, philosophy of nature, philosophy of mankind and ethics.

434/534 KANT *3 credits*
Prerequisite: 313 or permission of instructor. Study of Kantian system of thought and its relation to history of philosophy. Includes thorough investigation of one or more of Kant's philosophic works.

444/544 PROBLEMS IN PHILOSOPHY *3 credits*
Prerequisites: two courses in philosophy or permission of instructor. Thorough, critical examination of one major philosophical problem.

462/562 THEORY OF KNOWLEDGE *3 credits*
Prerequisite: One course in philosophy or permission of instructor. Examination of nature of knowledge; theories of perception, conception and truth, problem of induction and relation of language to knowledge.

464/564 PHILOSOPHY OF SCIENCE *3 credits*
Prerequisites: 101, 170 or permission of instructor. Nature of scientific inquiry, types of explanation, laws and causality, theoretical concepts and reality. Also considers critics of hypothetical-deductive view of science, e.g., Hanson and Kuhn.

471/571 METAPHYSICS *3 credits*
Prerequisite: One course in philosophy or permission of instructor. Theories about ultimate nature and ultimate explanation of reality. Uses readings from classical and contemporary sources.

480/580 SEMINAR *3 credits*
(May be repeated) Prerequisite: permission of instructor.

481/581 PHILOSOPHY OF LANGUAGE *3 credits*
Prerequisites: 101 and 170 or permission of instructor. Contemporary philosophies about nature of language and its relation to reality and human thinking. Includes discussion of views of linguists such as Chomsky.

490 SENIOR HONORS PROJECT IN PHILOSOPHY *3 credits*
Prerequisite: 390 or senior standing in Honors Program or senior honors standing as philosophy major or permission of instructor or nomination by department faculty member. Research leading to completion of senior honors thesis involving original work under faculty supervision.

497/597 INDIVIDUAL STUDY *1-3 credits*
(May be repeated for a total of six credits) Prerequisites: completion of required courses of philosophy major or permission of instructor and department head. Directed independent study of philosopher, philosophy or philosophical problem under guidance of selected faculty member. Subject matter determined by selected faculty member in consultation with student. Graduate credit requires significant additional work which may include additional research paper.

PHYSICS

3650:

130 DESCRIPTIVE ASTRONOMY *4 credits*
Qualitative introduction to astronomy, intended primarily as a first science course for non-science majors. Includes laboratory and observational activities.

133 MUSIC, SOUND AND PHYSICS *4 credits*
Qualitative introduction to the physics of sound, its properties, perception and reproduction, including acoustical principles of musical instruments. Laboratory and observational activities included.

137 LIGHT *4 credits*
Introductory, qualitative course dealing with the nature of light and the interaction of light with various materials to produce common visual effects. Laboratory activities provide experience in scientific investigation.

261 PHYSICS FOR THE LIFE SCIENCES I *4 credits*
Prerequisites: high school algebra, trigonometry or 3450:149 as corequisite or permission. Introductory course for professional work in biology and health professions and services. Emphasizes life science applications. Mechanics: laws of motion, force, torque, work, energy, power; properties of matter: gases, liquids, solids, fluid mechanics.

262 PHYSICS FOR THE LIFE SCIENCES II *4 credits*
Prerequisite: 261. Laws of thermodynamics, kinetic theory. Wave phenomena: sound, light, optics; electricity and magnetism; atomic and nuclear physics; radioactivity.

267,8 LIFE SCIENCE PHYSICS COMPUTATIONS I AND II *1 credit each*
Corequisites: 261 (with 267); 262 (with 268). Optional companion courses to 261,2 provides additional computational experience in applications of physics to life sciences, emphasizing use of algebra and trigonometry. Particularly recommended for student with modest mathematical preparation.

291 ELEMENTARY CLASSICAL PHYSICS I *4 credits*
Corequisite: 3450:221. Introductory physics for student of science and engineering. Classical statics, kinematics and dynamics, as related to contemporary physics. Oscillations, waves; fluid mechanics. Vectors and some calculus introduced as needed.

292 ELEMENTARY CLASSICAL PHYSICS II *4 credits*
Prerequisite: 291. Thermodynamics from atomic point of view; basic laws of electromagnetism; mechanical and electromagnetic waves. Interference and diffraction; coherence; geometrical and physical optics.

293,4 PHYSICS COMPUTATIONS I AND II *1 credit each*
Corequisite: 291 (with 293); 292 (with 294). Optional companion courses to 291,2 provides experience in problem solving, and elaborates application of calculus to simple physical phenomena. Particularly recommended for a freshman and for student with modest preparation in mathematics or physical sciences.

301 ELEMENTARY MODERN PHYSICS *3 credits*
Prerequisite: 292 or permission of instructor. Special relativity, introduction to quantum physics, hydrogen atom and complex atoms, atomic spectra, topics in nuclear and solid-state physics.

310 ELECTRONICS AND MEASUREMENT TECHNIQUES *3 credits*
Prerequisite: 262 or 292. Analog and digital circuits, active and passive circuit applications, op-amps, and electronic instrumentation.

320 WAVES *3 credits*
Prerequisite: 262 or 292. Wave phenomenon associated with physical systems undergoing free, driven and damped oscillations is examined. Analysis includes: resonance, dispersion, reflection, normal mode vibrations and Fourier synthesis.

322,23 INTERMEDIATE LABORATORY I AND II *3 credits each*
Prerequisite: 262 or 292. Laboratory course stressing measurement techniques with contemporary laboratory apparatus. Experiment design, instrument calibration and reporting emphasized. Modern physics experiments and measurement of fundamental natural constants.

331 INTERMEDIATE ASTRONOMY *3 credits*
Prerequisite: 262 or 292. A survey of astronomy at the intermediate level. Topics include principles of observational astronomy, Newtonian synthesis, nature of stars, structure of Universe.

340 THERMAL PHYSICS *3 credits*
Prerequisite: 262 or 292. Basic principles of thermal and statistical physics. Ensembles, laws of thermodynamics, equilibrium, irreversibility, equipartition theorem, canonical distribution, Maxwell distribution, phase changes, cyclic processes, transport processes.

350 MODELING AND SIMULATION *3 credits*
Prerequisites: 292, or 262; one elementary course in Computer Science such as 3460:201, 206, 208, or 209; and permission of instructor. An interdisciplinary course stressing modeling of natural phenomena using fundamental principles, and their simulation. Topics may include growth phenomena, fault propagation, kinetics, chemical reaction, etc.

399 UNDERGRADUATE RESEARCH *1-6 credits*
(May be repeated) Prerequisite: permission of instructor. Participation in current research project in department under supervision of faculty member.

400/500 HISTORY OF PHYSICS *3 credits*
Prerequisite: 262 or 292. Study of origin and evolution of major principles and concepts characterizing contemporary physics.

406/506 OPTICS *3 credits*
Prerequisites: 320 and 3450:235. Propagation, reflection and refraction of electromagnetic waves, Superposition, polarization, interference and interferometry, Fresnel and Fraunhofer diffraction, Fourier optics, coherence theory and quantum optics.

410/510 VACUUM SCIENCE AND TECHNOLOGY *3 credits*
Prerequisite: 301. An interdisciplinary course stressing the fundamentals and applications of vacuum science, including selection of materials, pressure measurement and vacuum attainment, safety precautions, etc.

431/531 MECHANICS I *3 credits*
Prerequisites: 292 and 3450:235. Mechanics at intermediate level. Newtonian mechanics, motion of a particle in one dimension, central field problem, system of particles, conservation laws, rigid bodies, gravitation.

432/532 MECHANICS II *3 credits*
Prerequisite: 431/531. Advanced mechanics at the senior or beginning graduate level, moving coordinate systems, mechanics of continuous media, Lagrange's equations, tensor algebra and stress analysis, rotation or rigid bodies, vibration theory.

436/536 ELECTROMAGNETISM I *3 credits*
Prerequisites: 292, 3450:235 or permission of instructor. Electricity and magnetism at intermediate level. Electrostatics and magnetostatics, electric field, scalar potential, dielectrics, Laplace's and Poisson's equations, currents, magnetic field, vector potential, magnetic materials, inductance.

437/537 ELECTROMAGNETISM II *3 credits*
Prerequisite: 436/536. Special relativity, four vectors, Maxwell's equations in covariant form; propagation, reflection and refraction of electromagnetic waves; multipole radiation.

441/541 QUANTUM PHYSICS I *3 credits*
Prerequisites: 301 and 3450:235. Introduction to quantum theory, Schrodinger equation, observables, angular momentum, perturbation theory, variational principle, bound states, scattering theory, radiative interactions, spin and the Pauli Principle.

442/542 QUANTUM PHYSICS II *3 credits*
Prerequisite: 441/541. Applications of quantum mechanics to atomic, nuclear and solid state physics. Tunneling and alpha decay, periodic potential, Hydrogen and Helium atoms, interatomic forces, quantum statistics.

451/551ADVANCED LABORATORY I *3 credits*
Prerequisite: 323 or permission of instructor. Experimental techniques, applicable to research-type projects in contemporary physics. FT-IR spectroscopy, optical spectroscopy, lasers and thin-film growth and characterization.

452/552 ADVANCED LABORATORY II *3 credits*
Prerequisite: 323 or permission of instructor. Experimental projects applicable to contemporary physics. Diode and dye lasers, NMR, SPM, chaos, electron tunneling and fiber optics.

468/568 DIGITAL DATA ACQUISITION *3 credits*
Prerequisite: 262 or 292. Designed to introduce science and mathematics students to use of digital techniques of interfacing instruments to microcomputers. Physical measurements and device control are emphasized.

470/570 INTRODUCTION TO SOLID-STATE PHYSICS *3 credits*
Prerequisite: 441 or permission of instructor. Account of basic physical processes occurring in solids, with emphasis on fundamental relation between these processes and periodicity of crystalline lattice.

481,2/581,2 METHODS OF MATHEMATICAL PHYSICS I AND II 3 credits each
Prerequisites: 292, 3450:235 and senior or graduate standing in a physical science or engineering. Vectors, generalized coordinates, tensors, calculus of variations, vector spaces, linear transformations, matrices, eigenvalues, Hilbert space, boundary value problems, transcendental functions, complex variables, analytic functions, Green's functions, integral equations.

488/588 SELECTED TOPICS: PHYSICS *1-4 credits*
(May be repeated) Prerequisite: permission. Consideration of selected topics, procedures, techniques, materials or apparatus of current interest in physics.

490/590 WORKSHOP *1-4 credits*
(May be repeated) Group studies of special topics in physics. May not be used to meet undergraduate or graduate major requirements in physics. May be used for elective credit only.

497/597 INDEPENDENT STUDY *1-4 credits*
(May be repeated) Prerequisite: permission. Further investigations of various selected topics in physics, under guidance of faculty member.

498/598 PHYSICS COLLOQUIUM *1 credit*
Lectures on current research topics in physics by invited speakers. May be repeated but only one credit counts toward the M.S. Degree. Offered on a credit/noncredit basis only.

POLITICAL SCIENCE
3700:

100 GOVERNMENT AND POLITICS IN THE UNITED STATES *4 credits*
Examination of American political system with emphasis on fundamental principles, ideas, institutions and processes of modern government. Lecture and discussion sections (day classes only).

120 CURRENT POLICY ISSUES *3 credits*
Survey of contemporary public policy issues by applying a broad conceptual framework. Cannot be used for credit toward major in political science.

150 WORLD POLITICS AND GOVERNMENTS *3 credits*
Introduction to international politics and an examination of the governments and foreign policies of selected states from a comparative perspective.

201 INTRODUCTION TO POLITICAL RESEARCH *3 credits*
Introduction to the research process in political science through an introduction to the logic of social science inquiry and contemporary techniques of analysis.

210 STATE AND LOCAL GOVERNMENT AND POLITICS *3 credits*
Examination of institutions, processes and intergovernmental relations at state and local levels.

220 AMERICAN FOREIGN POLICY *3 credits*
Examination of American foreign policy-making process; public opinion and other limitations on policy; specific contemporary problems in selected areas.

300 COMPARATIVE POLITICS *4 credits*
Introduction to comparative political analysis; description of political systems of Great Britain, France, Germany and Soviet Union; contrast between democracy and totalitarianism.

301 ADVANCED POLITICAL RESEARCH *3 credits*
Prerequisite: 201 or permission of instructor. Study and practice of political science research methods. Data collection, statistical analysis and presentation of empirical research projects. Computer applications used.

302 AMERICAN POLITICAL IDEAS *3 credits*
Study of major thinkers and writers of American political thought.

303 INTRODUCTION TO POLITICAL THOUGHT *3 credits*
Survey of major ideas and concepts of Western political theory from pre-Socrates through period of Enlightenment.

304 MODERN POLITICAL THOUGHT *3 credits*
Examination of central concepts of political thought from 19th Century to present. Modern liberalism, communism, fascism and totalitarianism emphasized.

310 INTERNATIONAL POLITICS AND INSTITUTIONS *4 credits*
Relations among nations examined in political context.

311 DEVELOPING STATES IN WORLD POLITICS *3 credits*
Examines how developing states are conditioned by the global system and how they attempt to modify it.

312 THE POLITICS OF INTERNATIONAL TRADE AND MONEY *3 credits*
Prerequisite: 310 or permission of instructor. Examines trade and money as sources of international power; focuses on the evolution of the Bretton Woods monetary and GATT trade regimes.

320 BRITAIN AND THE COMMONWEALTH *3 credits*
Description and analysis of government and politics of Great Britain and leading nations of the Commonwealth.

321 WESTERN EUROPEAN POLITICS *3 credits*
Description and analysis of government and politics of France, Germany, Italy and Switzerland, with appropriate references to Scandinavia and Low Countries.

322 POLITICS OF POST-COMMUNIST STATES *3 credits*
Examines the changing political policies and processes of select post-Communist states of the former Soviet Union and East Central Europe.

323 POLITICS OF CHINA AND JAPAN *3 credits*
Examination of governmental structures and political processes of China and Japan.

325 COMPARATIVE PUBLIC POLICY *3 credits*
Considers the formulation, decisions, implementation, impact of public policies in a comparative perspective. By examining public policies in a variety of countries the relationship of different economic and political systems to policy outcomes is observed.

326 POLITICS OF DEVELOPING NATIONS *3 credits*
General introduction to concepts and theories of political development and political institutions, elite-recruitment and political processes of selected emerging nations.

327 AFRICAN POLITICS *3 credits*
Examination of patterns of government and politics of nations south of Sahara.

330 CANADIAN POLITICS *3 credits*
An examination of the instructions and processes of Canadian government; a survey of some of the pressing issues confronting public decision makers in Canada.

341 THE AMERICAN CONGRESS *3 credits*
Examination of structure and function of Congress, with comparative materials on legislative process on all levels. Presidential and congressional conflict examined.

342 MINORITY GROUP POLITICS *3 credits*
Examination of political behavior of racial, religious and ethnic minority groups in the United States.

350 THE AMERICAN PRESIDENCY *3 credits*
The presidency as focal point of politics, policy and leadership in American political system.

360 THE JUDICIAL PROCESS *3 credits*
Role of police, lawyers, courts and judges in context of American political process. Structure and process of judicial policy making and limitations on judicial power.

361 POLITICS OF THE CRIMINAL JUSTICE SYSTEM *3 credits*
Examines the impact of the political process and political institutions on criminal law and policy.

362 POLITICS OF CORRECTIONS *3 credits*
Prerequisite: 100. Analysis of political responses to punishment and correcting deviant behavior, including post-conviction procedures and public policy strategies, the law of sentencing and prisoner rights.

363 COMPARATIVE CRIMINAL JUSTICE SYSTEMS *3 credits*
Prerequisite: 100. Comparative study of structure, meaning, practices, power relationships, and politics of different cultural justices in America and other countries throughout the world.

370 PUBLIC ADMINISTRATION: CONCEPTS AND PRACTICES *4 credits*
Examines current administrative theories and their application in public bureaucracies. Emphasis is placed on practices to improve the quality of public sector administration.

380 URBAN POLITICS AND POLICIES *4 credits*
Examination of problems emerging from urban and regional complexes in the United States. Structure and processes of political decision making at this level analyzed.

381 STATE POLITICS *3 credits*
Analysis of the state political process in terms of its capacity to deal with a wide range of socioeconomic problems. Special emphasis on legislators, administrators, parties and interest groups.

382 INTERGOVERNMENTAL RELATIONS *3 credits*
An examination of the history, theory, contemporary activities of intergovernmental relations in the United States. Interactions of local, state federal units of government will be considered.

391 HONORS IN POLITICAL SCIENCE *3 credits*
Prerequisites: at least 17 credits and a 3.25 average in political science and permission of adviser.

392 SELECTED TOPICS IN POLITICAL SCIENCE *1-3 credits*
(May be repeated, but no more than three credits can be applied to major in political science) Topics of substantial current importance, specialized topics within political science or experimental courses.

395 INTERNSHIP IN GOVERNMENT AND POLITICS *2-9 credits*
(May be taken twice for a total of nine hours. No more than four credits may be applied toward major in political science.) Prerequisite: Three courses in political science at The University of Akron, 2.20 average in political science, and permission of instructor. Supervised individual placement with political office holders, party groups, governmental agencies, law firms and other organizations providing professional-level work.

397 INDEPENDENT STUDY *1-4 credits*
(May be repeated for a total of four credits) Prerequisites: senior standing, 3.00 grade-point average and permission of adviser.

402/502 POLITICS AND THE MEDIA *3 credits*
Examination of relationships between the press, the news media and political decision makers.

405/505 POLITICS IN THE MIDDLE EAST *3 credits*
The rise of the state system in the Middle East after World War I; an analysis of the socio-cultural, ideological forces influencing the political behavior of the people of the Middle East. In-depth study of selected political systems.

410/510 INTERNATIONAL DEFENSE POLICY *3 credits*
Prerequisite: At least one of the following: 220, 310; 3400:380, 382, 460, 461, or permission. Introduction to political uses of military forces. Major focus on methodological, conceptual, and ethical dilemmas confronted in developing and implementing defense policy.

411/511 THEORIES OF INTERNATIONAL POLITICAL ECONOMY *3 credits*
Prerequisite: 310 or permission of instructor. This course examines the predominant and competing theories of international political economy, including imperialism, world systems analysis, long-wave theory, neo-mercantilism, and neo-realism.

412/512 GLOBAL ENVIRONMENT POLITICS *3 credits*
Prerequisites: 300, 310 or permission of instructor. Examines the general dimensions of the global environmental challenge, including the roles played by technology and the structure of the world system.

415/515 COMPARATIVE FOREIGN POLICY *3 credits*
Prerequisite: 310 or 220 or permission. Study of foreign policies of selected nations, with special attention to processes and instruments of decision making of the major powers.

420/520 ISSUES AND APPROACHES IN COMPARATIVE POLITICS *3 credits*
Prerequisite: 300 or permission of instructor. Detailed examination of approaches to the study of comparative politics, political parties, elites and various theories of revolution.

425/525 LATIN AMERICAN POLITICS *3 credits*
Prerequisite: 300 or permission of instructor. Examination of patterns of government and politics in Latin American area.

440/540 SURVEY RESEARCH METHODS *3 credits*
Prerequisites: 100 or 120 or permission. Study of survey research methods as applied to the analysis of public opinion, political behavior, and public policy formation.

441/541 THE POLICY PROCESS *3 credits*
Prerequisites: eight credits in political science. Intensive study of policy-making process, emphasizing roles of various participants in executive and legislative branches as well as private individuals and groups.

442/542 METHODS OF POLICY ANALYSIS *3 credits*
Prerequisite: 201. Examines variety of methods available for analyzing public policies. Techniques of cost benefit analysis, evaluation research quasi-experimentation are covered as well as consideration of ethical questions in policy analysis, the practical problems facing policy analysts.

461/561 THE SUPREME COURT AND CONSTITUTIONAL LAW *3 credits*
Prerequisite: 100 or permission. Interpretation of the Constitution by the Supreme Court with emphasis on federal judicial, legislative and executive power; separation of powers; and federalism.

462/562 THE SUPREME COURT AND CIVIL LIBERTIES *3 credits*
Prerequisite: 100 or permission. Interpretation of the Constitution by the Supreme Court with emphasis on freedom of speech and press, freedom of religion, criminal rights and right to privacy.

470/570 CAMPAIGN MANAGEMENT I *3 credits*
Prerequisite: permission of instructor. Reading, research and practice in campaign management decision making.

471/571 CAMPAIGN MANAGEMENT II *3 credits*
Prerequisite: 470. The second course in campaign management. The focus is on timing, coalition building, candidate positioning, event planning, internal organization, and other elements of campaign strategy.

472/572 CAMPAIGN FINANCE *3 credits*
Prerequisite: permission of instructor. Reading and research in financial decision making in political campaigns.

473/573 VOTER CONTACT AND ELECTIONS *3 credits*
Prerequisite: permission of instructor. Theoretical and practical approaches to communication in all types of campaigns.

474/574 POLITICAL OPINION, BEHAVIOR AND ELECTORAL POLITICS *3 credits*
Prerequisite: 100 or 201 or permission. Advanced analysis of psychological, cultural, and group processes of opinion formation and change. Attention given to the effect of opinion change on electoral outcomes.

475/575 AMERICAN INTEREST GROUPS *3 credits*
Prerequisite: six credits of political science or permission. Reading and research on the development, structure and function of interest groups in the United States.

476/576 AMERICAN POLITICAL PARTIES *3 credits*
Prerequisites: six credits of political science or permission. Reading and research on the development, structure and function of parties in the United States.

480/580 POLICY PROBLEMS *3 credits*
(May be repeated for a total of six credits) Prerequisite: 380 or permission. Intensive study of selected problems in public policy.

481/581 POLITICS OF POLICING *3 credits*
Prerequisite: 100. Analysis of various political dimensions underlying the study of politics and policing in the context of police reform, crime and the community.

482/582 CRIMINAL JUSTICE TOPIC: CURRENT ISSUES *3 credits*
(May be repeated for a maximum of six credits) Prerequisite: 100. Critical analysis of current issues relating to political science and criminal justice. No more than three credits can be applied to the major.

483/583 CONSTITUTIONAL PROBLEMS IN CRIMINAL JUSTICE *3 credits*
Prerequisite: 100. Analyzes Supreme Court policy-making regarding problems of criminal justice, including search and seizure, self-incrimination, right to counsel, jury selection, and post-appeal prisoner rights.

490/590 WORKSHOP *1-3 credits*
(May be repeated) Group studies of special topics in political science. May not be used to meet undergraduate or graduate requirements in political science. Elective credit only.

497 SENIOR HONORS PROJECT IN POLITICAL SCIENCE *1-3 credits*
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors Program and permission. Open only to a political science major in Honors Program. Independent study leading to completion of senior honors thesis or other original work.

PSYCHOLOGY
3750:

100 INTRODUCTION TO PSYCHOLOGY *3 credits*
Introduction to scientific study of behavior, survey of physiological basis of behavior, sensation and perception, development, learning and cognition, personality, social interaction and other selected topics.

105 PROFESSIONAL AND CAREER ISSUES IN PSYCHOLOGY *1 credit*
Corequisite: 100. An overview of the field of psychology including educational requirements, career opportunities and professional issues for students considering a psychology major.

110 QUANTITATIVE METHODS IN PSYCHOLOGY *4 credits*
Prerequisite or corequisite: 100. Presentation of data, descriptive statistics, correlation, hypothesis testing and introduction to statistical methodologies in psychology, including computer applications.

220 INTRODUCTION TO EXPERIMENTAL PSYCHOLOGY *4 credits*
Prerequisites: 100 and 110. Lectures and laboratory experience in the scientific bases of psychology such as experimental design, methods and apparatus, collection and analysis of data and interpretation of results.

230 DEVELOPMENTAL PSYCHOLOGY *4 credits*
Prerequisite: 100. Determinants and nature of behavioral change from conception to death.

240 INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY *4 credits*
Prerequisite: 100. Survey of applications of psychology in industry, business and government with emphasis on understanding employees and evaluating their behavior.

320 BIOPSYCHOLOGY *4 credits*
Prerequisite: 100. Relationship between behavior and its biological/physiological foundations including brain structure and function, sensation, behavior genetics, learning and memory, and other topics.

335 DYNAMICS OF PERSONALITY *4 credits*
Prerequisite: 100. An overview of theory and research involving the development, maintenance and assessment of personality and individual differences.

340 SOCIAL PSYCHOLOGY *4 credits*
Prerequisite: 100. The examination of an individual's response to social environment and social interaction processes. Social perception, attitude formation and change, affiliation and attraction, altruism, group processes and nonverbal behavior.

345 COGNITIVE PROCESSES *4 credits*
Prerequisite: 100. Survey of the basic phenomena, concepts and theories in the areas of human perception, learning, memory and cognition.

400/500 PERSONALITY *4 credits*
Prerequisites: 400—100 and 335; 500—admission to the Graduate School. Consideration of current conceptualizations of the normal personality with emphasis on methods of measurement, experimental findings and research techniques.

410/510 PSYCHOLOGICAL TESTS AND MEASUREMENTS *4 credits*
Prerequisites: 410—100; 510—admission to the Graduate School. Consideration of the nature, construction and use of tests and measurements in industry, government and education. Includes aptitude and achievement tests, rating scales, attitude and opinion analysis.

420/520 ABNORMAL PSYCHOLOGY *4 credits*
Prerequisites: 420—100; 520—admission to the Graduate School. Survey of syndromes, etiology, diagnoses and treatments of major psychological conditions ranging from transient maladjustments to psychoses.

430/530 PSYCHOLOGICAL DISORDERS OF CHILDREN *4 credits*
Prerequisites: 430—100 and 230; 530—admission to the Graduate School. Survey of syndromes, etiologies and treatments of behavioral disorders in children from the standpoint of developmental psychology. Behavioral data and treatment approaches emphasized.

435 CROSS-CULTURAL PSYCHOLOGY *4 credits*
Prerequisites: 100. Influence of culture and ethnicity upon development of individual-psychological processes including functioning, identity, social motives, sex roles and values.

440 PERSONNEL PSYCHOLOGY AND THE LAW *4 credits*
Prerequisites: 240 or 6500:301. The implications of equal employment law on the practice of personnel psychology.

441 CLINICAL AND COUNSELING PSYCHOLOGY I *4 credits*
Prerequisites: 100 and 335. Overview of the fields of clinical and counseling psychology including counseling and psychotherapeutic approaches, vocational counseling, assessment, research, training and professional issues.

442 CLINICAL AND COUNSELING PSYCHOLOGY II *4 credits*
Prerequisite: 441. Overview of individual counseling and psychotherapy, group counseling, personality and ability testing, marriage and family counseling, hypnosis, sex therapy, psychopharmacology and related specialties. Specific topics in clinical and counseling practice including professional trends, ethics, various therapeutic and diagnostic procedures, and specialty areas.

443/543 HUMAN RESOURCE MANAGEMENT *4 credits*
Prerequisites: 443— 100 and 240; 543—admission to the Graduate School. The application of psychological theory to the effective management of human resources in an organization, including recruitment, selection, training and retention of personnel.

444/544 ORGANIZATIONAL THEORY *4 credits*
Prerequisites: 444—100 and 240; 544 — admission to the Graduate School. The application of psychological theory to macro-level processes in organizations including leadership, motivation, task performance, organizational theories and development.

445/545 PSYCHOLOGY OF SMALL GROUP BEHAVIOR *4 credits*
Prerequisites: 445—100; 545—admission to the Graduate School. Intensive investigation of factors affecting behavior and performance in small groups including effects of personality, social structures, task, situational and social-cognitive variables.

446 RESEARCH DESIGN AND ANALYSIS *4 credits*
Prerequisites: 100, 110 and 220. Review of psychological methodology including research design and analysis, internal and external validity, measurement of constructs and specific analytic techniques.

450/550 COGNITIVE DEVELOPMENT *4 credits*
Prerequisite: 450—100 and 345; 550—admission to the Graduate School. Theory and research on life-span changes in cognitive processes including concept formation/categorization, information processing and Piagetian assessment tasks.

460/560 HISTORY OF PSYCHOLOGY *3 credits*
Prerequisite: 460-100, 560 — admission to the Graduate School. Psychology in pre-scientific period and details of developmental or systematic viewpoints in 19th and 20th Centuries.

475 PSYCHOLOGY OF ADULTHOOD AND AGING *4 credits*
Prerequisites: 100 and 230. Psychological aspects of human development from adolescence to older adulthood including age-related changes in socialization, personality, intelligence, sensation, perception, learning, memory and clinical applications.

480 SPECIAL TOPICS IN PSYCHOLOGY *1-4 credits*
(May be repeated to a maximum of 8 credits) Prerequisite: 100 and 64 credits completed. Comprehensive survey of contemporary status of specialized topics and issues in psychology. Emphasis on original source materials, critical analysis and synthesis of empirical and theoretical aspects.

485 APPLIED DEVELOPMENTAL PSYCHOLOGY *4 credits*
Prerequisite: 100. Conceptual and methodological issues in life-span developmental psychology. The approach is data-based, multidisciplinary and problem-focused.

488,9 HONORS PROJECT IN PSYCHOLOGY *4 credits each*
Prerequisites: Psychology major and departmental permission, and 100 and 105 and 110 and 220, and 320 or 335 or 340 or 345. 488: Selection of research topic, review of relevant literature, research design, and proposal. 489: Data collection, analysis, and preparation of the final research report in journal style.

490/590 WORKSHOP IN PSYCHOLOGY *1-5 credits*
(May be repeated. May not be used to meet undergraduate or graduate major requirements in psychology.) Prerequisites: 490—3750:100 and 64 credits completed; 590—admission to the Graduate School. Group studies of special topics in psychology.

495 FIELD EXPERIENCE IN PSYCHOLOGY *2-4 credits*
(May be repeated to a maximum of 6 credits). Prerequisites: 100 and 105 and 110 and 220 and four additional credits in psychology. On-site supervised individual placements as a psychology assistant in appropriate community and institutional/organizational settings.

497 INDEPENDENT READING, AND/OR RESEARCH IN PSYCHOLOGY *1-3 credits*
(May be repeated to a maximum of 6 credits). Prerequisites: 3750:100 and 105 and 110 and 220 and four additional credits in psychology. Independent reading and/or research in an area of psychology under the supervision and evaluation of a selected faculty member.

SOCIOLOGY

3850:

100 INTRODUCTION TO SOCIOLOGY *4 credits*
Basic terminology, concepts and approaches in sociology, including introduction to analysis of social groups and application of sociological concepts to the understanding of social systems. Required of majors. Lecture/discussion.

104 SOCIAL PROBLEMS *3 credits*
Prerequisite: 100 or permission. Analysis of selected contemporary problems in society; application of sociological concepts and research as tools for understanding sources of such problems. Lecture.

301 METHODS OF SOCIAL RESEARCH I *3 credits*
Prerequisites: 100 and 3450:145 or equivalent or permission. Lecture/laboratory course (minimum of two laboratory hours per week). Research design and data-gathering techniques. Required of all majors except sociology/anthropology.

302 METHODS OF SOCIAL RESEARCH II *3 credits*
Prerequisite: 100 and 301 and 3450:145 or equivalent (Sociology/anthropology majors are excused from the 301 prerequisite), or permission. Quantitative techniques and application to sociological data. Combination lecture and laboratory course requiring at least two laboratory hours per week. Required of majors. Lecture/laboratory.

315 SOCIOLOGICAL SOCIAL PSYCHOLOGY *3 credits*
Prerequisite: 100. The reciprocal influence of individuals and groups. How interpersonal processes produce and affect group structure. How groups affect the development and behavior of the social person.

320 SOCIAL INEQUALITY *3 credits*
Prerequisite: 100 or permission. Study of the way social rankings occur in societies and how particular rankings affect individual behavior, group relations and social structures. Lecture.

321 POPULATION *3 credits*
An introduction to world and national population trends, related demographic and social characteristics. Topics include fertility, mortality, morbidity, migration, abortion, birth control, population policy in relation to societal problems. Lecture.

323 SOCIAL CHANGE *3 credits*
Prerequisite: 100 or permission. Introduction to theories and processes of social change, dimensions of change in contemporary, traditional and urban-industrial societies; projection and prediction of selected trends and forms. Lecture.

324 SOCIAL MOVEMENTS *3 credits*
Prerequisite: 100 or permission. Social movements as distinguished from other forms of collective behavior; analysis of social situations which produce social movements; focus on development of social movements and their role in social change. Lecture.

330 CRIMINOLOGY *3 credits*
Prerequisite: 100. Major focus on interrelationships and analysis of crimes, criminals, criminal justice systems and society. Lecture.

334 SOCIAL ORGANIZATION *3 credits*
Prerequisite: 100 or permission. Nature of social organization, social control; organizational typologies; theories of organizational structure, functions; analysis of complex organizations in a social system. Lecture.

335 SOCIAL BEHAVIOR IN ORGANIZATIONS *3 credits*
Prerequisite: 100 or permission. Analysis of the structure of such complex organizations as voluntary associations, business organizations and public bureaucracies, in relation to issues including organizational effectiveness, organizational design and change, job satisfaction and quality of work experience. Lecture.

336 SOCIOLOGY OF WORK AND OCCUPATIONS *3 credits*
Prerequisite: 100 or permission. Survey of theory and empirical research in areas such as the structure of occupations and professions, occupational attainment, work force characteristics, work values and orientations, the nature of work. Lecture.

340 THE FAMILY *3 credits*
Prerequisite: 100 or permission. Analysis of family as a social system; historical, comparative and contemporary sociological approaches examined in relation to family structure and functions. Lecture.

341 POLITICAL SOCIOLOGY *3 credits*
Prerequisite: 100 or permission. Survey of theory and empirical research dealing with relationship between political phenomena and the larger network of social processes in human societies. Lecture.

342 SOCIOLOGY OF HEALTH AND ILLNESS *3 credits*
Prerequisite: 100 or permission. General survey of sociological perspectives, concepts and research on health, illness and health-care delivery systems. Lecture.

343 THE SOCIOLOGY OF AGING *3 credits*
Prerequisite: 100 or permission. Examination of process of aging from perspective of behavioral and sociological aspects. Lecture.

344 SOCIOLOGY OF GENDER *3 credits*
Prerequisite: 100 or permission. Review of theories and research on origins, characteristics and changes in gender. An examination of gender as structure, process and experience in industrialized society.

345 FAMILY AND HEALTH *3 credits*
Prerequisites: 100 or permission. Survey of interrelationships between family structure and functioning and the health care system. Includes historical perspectives as well as current conditions.

365 SPECIAL TOPICS IN SOCIOLOGY *1-3 credits*
(May be repeated) Prerequisite: permission. Special topics of interest to sociology major and non-major not covered in regular course offerings.

397 SOCIOLOGICAL READINGS AND RESEARCH *1-3 credits*
Prerequisite: permission. Individual study of problem area of specific interest to individual student under guidance of department member. Preparation of a research paper.

410/510 SOCIAL STRUCTURES AND PERSONALITY *3 credits*
Prerequisite: 100 or permission. Interrelationships between position in society, personality characteristics. Personality treated as both result and determinant of social structure and process. Lecture.

411/511 SOCIAL INTERACTION *3 credits*
Prerequisite: 100 or permission. Intensive study of advanced theory and research in social psychology, particularly how social interaction and self-conception affect one another. Lecture.

412/512 SOCIALIZATION: CHILD TO ADULT *3 credits*
Prerequisite: 100 or permission. Theoretical and empirical analyses of process by which infant, child, adolescent and adult learn social and cultural requirements necessary to function in new roles, changing roles and society in general.

421/521 RACIAL AND ETHNIC RELATIONS *3 credits*
Prerequisite: 100 or permission. Analysis of structure and dynamics of race and ethnic relations from a variety of perspectives emphasizing both historical and contemporary issues. Lecture.

423/523 SOCIOLOGY OF WOMEN *3 credits*
Prerequisites: 100 or permission of instructor. Examination of research and theories pertaining to women's status in society, including economic conditions, the relationship between structure and experience, and other gender-related issues.

425/525 SOCIOLOGY OF URBAN LIFE *3 credits*
Prerequisite: 100 or permission. Emergence and development of urban society. Examination of urban social structure from neighborhood to metropolis, the problems and prospects. Emphasis on various life styles of urban subcultures. Lecture/discussion.

428/528 THE VICTIM IN SOCIETY *3 credits*
Prerequisites: 100 or permission of instructor. Study of the nature, causes, and consequences of victimization with special focus on crime victimization.

429/529 PROBATION AND PAROLE *3 credits*
Prerequisite: 330 or 430 or permission. Analysis of how probationers and parolees are selected, supervised and then released into private life. Emphasis on current and past social research. Lecture/discussion.

430/530 JUVENILE DELINQUENCY *3 credits*
Prerequisite: 100 or permission. Analysis of social structure and process from which delinquency develops. Emphasis on current and past research. Lecture/discussion.

431/531 CORRECTIONS *3 credits*
Prerequisite: 330 or 430. Theories, belief systems, correctional practices and effectiveness as related to offender groups. Lecture/discussion/field experience.

433/533 SOCIOLOGY OF DEVIANT BEHAVIOR *3 credits*
Prerequisites: 100 and at least six additional credits of sociology courses or permission. Survey of theories of deviant behavior and relevant empirical research. Special emphasis given to interaction processes and social control. Lecture.

440/540 SOCIOLOGY OF RELIGION *3 credits*
Prerequisite: 100 or permission. Study of forms of religion and their social functions with emphasis on religion in American society. Lecture.

441/541 SOCIOLOGY OF LAW *3 credits*
Prerequisites: 100 and at least six additional credits of sociology courses or permission. Social origins and consequences of law and legal processes. Emphasis on uses of law, social change and aspects of legal professions. Lecture.

442/542 SOCIOLOGY OF EDUCATION *3 credits*
Prerequisite: 100 or permission. Analysis of education from an organizational and social psychological perspective. Topics include: desegregation; busing; neighborhood schools; impact of family, peers and teachers on learning; school organization. Lecture.

443/543 INDUSTRIAL SOCIOLOGY *3 credits*
Prerequisite: six credits of sociology or industrial management. Comparison of formal and informal structures in industrial organizations; analysis of work roles and status systems; communication processes; relation of work plant to community and society. Lecture.

444/544 SOCIAL ISSUES IN AGING *3 credits*
Prerequisite: 100 or permission. A look into the major issues and problems facing older persons. Special attention is given to the unmet needs of the elderly as well as an examination of current societal policy and programs to meet these needs.

450/550 SOCIOLOGY OF MENTAL ILLNESS *3 credits*
Prerequisite: 100 or permission. The social history of the mental hospital, theories and epidemiology of mental illness, community-based treatment models, the organization of mental health services, the role of personal social networks and mutual support groups.

460/560 SOCIOLOGICAL THEORY *4 credits*
Prerequisite: 100 or permission. An overview and examination of theoretical issues in sociology through the study of both classical and contemporary theoretical work.

494/594 WORKSHOP IN SOCIOLOGY *1-3 credits*
(May be repeated) Group studies of special topics in sociology. May not be used to meet departmental undergraduate or graduate major requirements. May be used for elective credit only.

495 FIELD INTERNSHIP *2-4 credits*
(May be repeated for a total of nine credits) Prerequisites: permission of a faculty supervisor. Placement in community organization for supervised experience related to degree requirement. Student must submit an application to the intern coordinator during semester prior to enrollment.

496 SENIOR HONORS PROJECT *1-3 credits*
(May be repeated for a total of six credits) Prerequisites: enrollment in Honors Program and senior standing, and major in sociology or sociology/anthropology. Thesis or original creative work appropriate to student's area of interest. Requirements and evaluation of project determined by departmental honors preceptor and student's honors project adviser.

ANTHROPOLOGY

3870:

150 CULTURAL ANTHROPOLOGY *4 credits*
Introduction to study of culture; cross-cultural view of human adaptation through technology, social organization and ideology. Lecture.

151 HUMAN EVOLUTION *4 credits*
Study of biological evolution of Homo Sapiens, including primate comparisons and cultural development. One-hour laboratory using interactive computer programs, casts and Anthropology's cultural collection.

250 INTRODUCTION TO ARCHAEOLOGY *3 credits*
Prerequisite: 150. Course covers brief history of archaeology as a discipline, describes methodology and presents a short sketch of worldwide prehistory.

251 HUMAN DIVERSITY *3 credits*
A study of the critical elements of world diversity, both cultural and biological. Cross-cultural comparisons of family, religion and politics in contemporary world. Multimedia and lecture.

270 CULTURES OF THE WORLD *3 credits*
Prerequisite: 150 or permission of instructor. An examination of diversity in pre-industrial cultures; the ways in which cultures differ and the major processes which produce cultural differences.

355 INDIANS OF SOUTH AMERICA *3 credits*
Prerequisite: 150 or 3850:100 or permission. Survey of aboriginal peoples of South America, with emphasis on culture areas and continuity of culture patterns. Lecture.

356 ARCHAEOLOGY OF THE AMERICAS *3 credits*
Prerequisite: 150 or 3850:100 or permission. Survey of prehistoric cultures of North, Middle and South America; beginning with peopling of Western Hemisphere and ending with European contact. Lecture.

357 MAGIC, MYTH AND RELIGION *3 credits*
Prerequisite: 150 or 3850:100. Analysis and discussion of the data concerning the origins, roles and functions of magic and religion in a broad range of human societies, with emphasis on the non-Western, pre-industrial societies. Examination of belief and ritual systems of such societies.

358 INDIANS OF NORTH AMERICA *3 credits*
Prerequisite: 150 or permission. Ethnographic survey of native cultures of North America, with emphasis on variations in ecological adaptations, social organization and modern American Indians in anthropological perspective. Lecture.

359 ANTHROPOLOGY IN THE 21ST CENTURY *3 credits*
Prerequisites: 150, 151 or permission of instructor. A seminar on the role, function and current theories in anthropology and the relevance of the discipline in the new century. Includes research methodologies.

397 ANTHROPOLOGICAL RESEARCH *1-3 credits*
(May be repeated) Prerequisite: permission. Individual study of problem areas of specific interest to an individual student under guidance of a faculty member.

455/555 CULTURE AND PERSONALITY *3 credits*
Prerequisite: 150 or permission. Examination of functional and causal relationships between culture and individual cognition and behavior. Lecture.

457/557 CULTURE AND MEDICINE *3 credits*
Prerequisite: 150 or permission of instructor. Analyzes various aspects of Western and non-Western medical systems from an anthropological perspective. Compares traditional medical systems around the world.

460/560 QUALITATIVE METHODS: BASIS OF ANTHROPOLOGICAL RESEARCH *3 credits*
Prerequisite: Junior standing. Provides hands-on experience in qualitative methods, including key informant interviewing, focus groups, and other methods. Includes the use of computer-based programs for rapid appraisal strategies.

463/563 SOCIAL ANTHROPOLOGY *3 credits*
Prerequisite: 150 or permission. Comparative structural analysis of non-Western systems of kinship and social organization in terms of status, role, reciprocal expectation, nomenclature, nuclear and extended households and other kinship groupings. Lecture.

472/572 SPECIAL TOPICS: ANTHROPOLOGY *3 credits*
(May be repeated) Prerequisites: 150 and permission. Designed to meet needs of student with interests in selected topics in anthropology. Offered irregularly when resources and opportunities permit. May include archaeological field school, laboratory research or advanced course work not presently offered by department on regular basis.

494/594 WORKSHOP IN ANTHROPOLOGY *1-3 credits*
(May be repeated) Group studies of special topics in anthropology. May not be used to meet departmental undergraduate or graduate major requirements. May be used for elective credit only.

College of Engineering

GENERAL ENGINEERING

4100:

101 TOOLS FOR ENGINEERING *3 credits*
Corequisite: 3450:149. Introduction to engineering. Free hand, engineering, and CAD drawing. Introduction to computer programming, computer applications including word processing, spreadsheets, data base. Introduction to engineering economics. Required for Chemical, Civil, and Electrical Engineering majors.

203 ENVIRONMENTAL SCIENCE AND ENGINEERING *3 credits*
Science and engineering fundamentals required to understand environmental issues and alternative solutions. Not for engineering, chemistry, or physics majors.

300 COOPERATIVE EDUCATION WORK PERIOD *0 credit*
Elective for cooperative education student who has completed sophomore year. Practice in industry and comprehensive written reports of this experience.

301 COOPERATIVE EDUCATION WORK PERIOD *0 credit*
Required for cooperative education student only. Practice in industry and comprehensive written reports of this experience. Offered spring semester of third year.

302 COOPERATIVE EDUCATION WORK PERIOD *0 credit*
Required for cooperative education student only. Practice in industry and comprehensive written reports of this experience. Offered fall semester of fourth year.

403 COOPERATIVE EDUCATION WORK PERIOD *0 credit*
Required for cooperative education student only. Practice in industry and comprehensive written reports of this experience. Offered summer after fourth year.

CHEMICAL ENGINEERING

4200:

121 CHEMICAL ENGINEERING COMPUTATIONS *2 credits*
Prerequisites: 101 or permission. Computer programming language, flowcharting, introductory simulation and introductory numerical analysis.

194 CHEMICAL ENGINEERING DESIGN I *1 credit*
Prerequisites: 4100:101 and permission. Individual or group project under faculty supervision. Introduction to chemical engineering processes and modern design technology. Written report is required.

200 MATERIAL AND ENERGY BALANCES *4 credits*
Prerequisites: 121, 3450:221 and 3150:154. Introduction to material, energy balance calculations applied to solution of chemical problems.

225 EQUILIBRIUM THERMODYNAMICS *4 credits*
Prerequisites: 200 and 3450:223. Second law of thermodynamics, entropy, applications, comprehensive treatment of pure and mixed fluids. Phase and chemical equilibria, flow processes, power production and refrigeration processes covered.

294 CHEMICAL ENGINEERING DESIGN II *1-2 credits*
Prerequisites: 121, 200 and permission. Supervised individual or group design project. Analysis of multi-unit process using simulation and/or experimental techniques. Written report and oral presentation required.

305 MATERIALS SCIENCE *2 credits*
Prerequisites: 3150:133 and 3650:292 and junior standing. Structure, processing and properties of metals, ceramics and polymers. Special topics, such as composites, corrosion and wear.

321 TRANSPORT PHENOMENA *3 credits*
Prerequisites: 200 and 3450:223. Constitutive equations for momentum, energy and mass transfer. Development of microscopic and macroscopic momentum, energy and mass transfer equations for binary systems. Analogy and dimensionless analysis. Problems and applications in unit operations of chemical engineering.

330 CHEMICAL REACTION ENGINEERING *3 credits*
Prerequisite: 225. Nonequilibrium processes including chemical reaction mechanisms, rate equations and ideal reactor design applied to homogeneous and heterogeneous systems.

341 PROCESS ECONOMICS *2 credits*
Prerequisite: 200. Theory and application of engineering economy to multi-unit processes. Cost estimation, time value of money, profit analysis, decision making and introduction to project management.

351 FLUID AND THERMAL OPERATIONS *3 credits*
Prerequisite: 321. Applications of fluid mechanics including piping, pumping, compression, metering, agitation and separations. Applications of heart transfer by conduction, convection and radiation to design of process equipment.

353 MASS TRANSFER OPERATIONS *3 credits*
Prerequisites: 225 and C- or above in 200. Theory and design of staged operations including distillation, extraction, absorption. Theory and design of continuous mass transfer devices.

360 CHEMICAL ENGINEERING LABORATORY *3 credits*
Prerequisites: 330, 351, 353. Comprehensive experiments in combined heat and mass transfer, thermodynamics, and reaction kinetics. Data collection and analysis. Comprehensive reports in various formats.

394 CHEMICAL ENGINEERING DESIGN III *1-3 credits*
Prerequisites: 351 and permission. Supervised individual or group design project. Develop, evaluate and design feasible solutions to an open-ended problem pertinent to chemical engineering. Written report and oral presentation required.

408 POLYMER ENGINEERING *3 credits*
Prerequisite: permission or senior standing. Commercial polymerization, materials selection and property modification, polymer processing, applied rheology and classification of polymer industry.

435 PROCESS ANALYSIS AND CONTROL *3 credits*
Prerequisites: 330, 353. Response of simple and chemical processes and design of appropriate control systems.

438 ENERGY INTEGRATION *3 credits*
Prerequisite: 351. This course uses P[inch Design formalism to present the core energy integration tools for energy and area targeting, and tools for integration of reactors, distillation columns, and heat pumps.

441 PROCESS DESIGN *3 credits*
Prerequisites: 330, 351, 353. Application of chemical engineering fundamentals to the design of a multi-unit process. The emphasis is on the proper use of process simulators. Advanced equipment design, oral and written communication skills and teamwork.

442 PLANT DESIGN *3 credits*
Prerequisite: 441. Integration of process and equipment design for a total plant including justification, site selection and plant layout. Culminates with a case study or A.I.Ch.E. Student Contest Problem.

461/561 SOLIDS PROCESSING *3 credits*
Prerequisites: 321 and 353 or permission. Comprehensive problems in sedimentation, fluidization, drying and other operations involving mechanics of particulate solids in liquid and gas continua.

462 INDUSTRIAL ENZYME TECHNOLOGY *3 credits*
Prerequisites: 330 and 351. Application of chemical engineering to biological processes involving enzymes and their industrial applications. Special emphasis given to the kinetics, control, design, and process economics aspects.

463/563 POLLUTION CONTROL *3 credits*
Prerequisite: 353 or permission. Air and water pollution sources and problems. Engineering aspects and methodology.

466/566 DIGITIZED DATA AND SIMULATION *3 credits*
Prerequisite: permission. Data acquisition and analysis by digital devices, digital control applications and design.

470/570 ELECTROCHEMICAL ENGINEERING *3 credits*
Prerequisites: 322, 330. Chemical engineering principles as applied to the study of electrode processes and to the design of electrochemical reactors. Topics include electrochemical thermodynamics, cell polarizations, Faraday's Laws, electrode kinetics, transport processes in electrochemical systems, current distributions, reactor design, experimental methods, commercial processes, and batteries and fuel cells.

471 FUEL ENGINEERING *3 credits*
Prerequisite: 330 or permission of instructor. Topics related to clean liquid and solid fuels technology. Special emphasis given to design, system analysis, environmental impacts, and novel technologies.

472 SEPARATION PROCESSES IN BIOCHEMICAL ENGINEERING *3 credits*
Introduction to the separation and purification techniques pertinent to bioprocesses, with emphasis on engineering considerations for large scale operations.

473 BIOREACTOR DESIGN *3 credits*
Prerequisite: 330 or instructor's consent. Design, analysis, and scale-up of bioreactors for various biological processes.

488 CHEMICAL PROCESSES DESIGN *3 credits*
Prerequisite: Permission of instructor or senior standing. Process design and analysis of emerging chemical technologies. Case studies, such as in-situ processing, alternative fuels, bioremediation, and engineering materials manufacture.

494 DESIGN PROJECT *3 credits*
Prerequisite: Permission or senior standing. Individual design project pertinent to chemical engineering under faculty supervision. Written report and oral presentation required.

496 TOPICS IN CHEMICAL ENGINEERING *1-3 credits*
(May be repeated for a total of six credits) Prerequisite: permission. Topics selected from new and developing areas of chemical engineering, such as electrochemical engineering, coal and synthetic fuels processing, bioengineering, simultaneous heat and mass transfer phenomena and new separation techniques.

497 HONORS PROJECT *1-3 credits*
(May be repeated for a total of six credits) Prerequisite: special permission. Individual creative project pertinent to chemical engineering culminating in undergraduate thesis, supervised by faculty member of the department.

499 RESEARCH PROJECT *1-3 credits*
(May be repeated for a total of six credits) Prerequisite: permission. Individual research project pertinent to chemical engineering under faculty supervision. Report required.

CIVIL ENGINEERING
4300:

201 STATICS *3 credits*
Corequisites: 3450:222 and 3650:291. Forces, resultants, couples; equilibrium of force systems; distributed forces; centers of gravity, analysis of simple structures; moments of inertia; kinematics.

202 INTRODUCTION TO MECHANICS OF SOLIDS *3 credits*
Prerequisite: 201. Axial force, bending moment diagrams, axial stress and deformation; stress-strain diagrams; torsion; flexural stress; flexural shearing stress; compound stresses; indeterminate beams; columns.

230 SURVEYING *3 credits*
Basic tools and computations for surveying: measurement of distance elevation and angles; traverse surveys. Laboratory field practice.

306 THEORY OF STRUCTURES *3 credits*
Prerequisite: 202. Stability and determinacy; statically determinate trusses and frames; approximate frame analysis influence lines; moving loads; virtual work analysis; moment area theorem; theorem of three moments; moment distribution for continuous beams and frames.

313 SOIL MECHANICS *3 credits*
Prerequisite: 202 or permission. Physical properties of soils. Soil water and groundwater flow. Stresses, displacements, volume changes, consolidation within a soil mass. Soil strength. Compaction.

314 GEOTECHNICAL ENGINEERING *3 credits*
Prerequisite: 313. Limiting equilibrium within a soil mass. Design of retaining walls, bulkheads, shallow, deep foundation systems. Slope stability. Laboratory study of soil properties and behavior.

321 INTRODUCTION TO ENVIRONMENTAL ENGINEERING *3 credits*
Prerequisites: 3150:153, 3450:222. Basic principles of ecosystems, microbiology, chemical reactions, and material flow that environmental engineers use to protect our water, air and soil.

323 WATER SUPPLY AND POLLUTION CONTROL *4 credits*
Prerequisite: 321. Water and wastewater characteristics, criteria, quantities and distribution. Water and wastewater treatment process flowsheets, design and operation. Wastewater and residue disposal.

341 HYDRAULIC ENGINEERING *3 credits**
Prerequisite: 4600:310. This course will focus on presentation and application of fundamental hydraulic principles in both the classroom and laboratory. Examination of flow in pipelines and pipe networks, pumps and pumping stations, hydrology, flow in open channels, groundwater hydraulics, and design of hydraulic structures will be studied. Emphasis will be placed on proper application of principles, data interpretation and analysis, problem solving, and report writing.

361 TRANSPORTATION ENGINEERING *3 credits*
Prerequisite: junior standing. Introductory survey of transportation topics including transportation planning requirements and techniques, introduction to design of highways, airports and railroads and introduction to traffic engineering.

380 ENGINEERING MATERIALS LABORATORY *2 credits*
Prerequisite: 202. Fundamentals and applications of materials science, mechanics of solids and study of laboratory instrumentation and standard techniques in testing of engineering materials.

390 CIVIL ENGINEERING SEMINAR *1 credit*
A civil engineering seminar discussing contemporary issues in civil engineering, our professional and ethical responsibilities, and our impact and interaction with society.

401 STEEL DESIGN *3 credits*
Prerequisite: 306. Tension, compression members; openweb joists; beams; bearing plates; beam-columns; bolted, welded connections.

403 REINFORCED CONCRETE DESIGN *3 credits*
Prerequisite: 306. Ultimate strength analysis and design; compression steel; diagonal tension; stirrups; development length; one-way slab; T-beams; two-way slabs; columns; isolated and combined footings.

404 ADVANCED STRUCTURAL DESIGN *3 credits*
Prerequisites: 401, 403. Composite design; plate girders; plastic design; cantilever retaining walls; torsion in R/C members; deflection of R/C members; continuous girder bridge design.

407 ADVANCED STRUCTURAL ANALYSIS *3 credits*
Prerequisite: 306. Energy methods for beams and frames. Stiffness and flexibility formulations for framed structures using classical and matrix methods. Introduction to stability and plastic analysis. Warping-Torsion behavior of beams. Analysis of axisymmetric circular plates and membrane shells.

414/514 DESIGN OF EARTH STRUCTURES *3 credits*
Prerequisite: 314 or permission. Design of earth structures: dams, highway fills, cofferdams, etc. Embankment construction techniques, quality control, embankment analysis, instrumentation, foundation soil stabilization, seepage analysis and control. Design problem. Graduate students will perform more advanced analysis and design.

418/518 SOIL AND ROCK EXPLORATION *3 credits*
Prerequisite: 314 or permission. Site exploration criteria and planning. Conventional boring, sampling and in situ testing methods. Theory and application of geophysics and geophysical methods including seismic, electrical resistivity, gravity, magnetic and radioactive measurements. Air photo interpretation.

423 CHEMISTRY FOR ENVIRONMENTAL ENGINEERS *3 credits*
Prerequisite: One year of college chemistry. General, physical, organic biochemistry, equilibrium, and colloid chemistry concepts applied to Environmental Engineering. Concepts are used in water and wastewater laboratory.

424 WATER-WASTEWATER LABORATORY *1 credit*
Corequisite: 323 or permission. Analysis of water and wastewater.

426/526 ENVIRONMENTAL ENGINEERING DESIGN *3 credits*
Prerequisite: 323. An introduction to the physical, chemical and biological processes utilized in the treatment of water and wastewater, with design parameters emphasized.

427/527 WATER QUALITY MODELING AND MANAGEMENT *3 credits*
Prerequisite: 323. Analysis and simulation of the physical, chemical and biochemical processes affecting stream quality. Development of management strategies based upon the application of water quality modeling techniques to environmental systems.

428/528 HAZARDOUS AND SOLID WASTES *3 credits*
Prerequisite: senior standing or permission of instructor. Hazardous and solid waste quantities, properties and sources are presented. Handling, processing, storage and disposal methods are discussed with non-technical constraints outlined.

441 HYDRAULIC DESIGN *3 credits*
Prerequisite: 341. Collection and critical evaluation of hydraulic data related to actual design problem selected by instructor. Development and analysis of design alternatives. Preparation of reports.

443/543 APPLIED HYDRAULICS *3 credits*
Prerequisite: 341. Review of design principles: urban hydraulics, stream channel mechanics, sedimentation, coastal engineering.

445 HYDROLOGY *3 credits*
Prerequisite: 341. Surface water hydrology, water cycle, precipitation, evaporation, stream flow. Principles of hydrologic systems and their analysis. Hydrologic simulation, reservoir planning and water supply studies. Analysis of rainfall and floods.

448 HYDRAULICS LABORATORY *1 credit*
Prerequisite: 341. Introduction to laboratory and field devices for hydraulic measurements. Reduction and presentation of hydraulic data. Individual assignments of model studies of hydraulic structures.

450 URBAN PLANNING *2 credits*
Historical developments in urban planning; urban planning techniques and patterns; comprehensive master planning studies; planning regulations; design problems; class projects; class project presentation.

451/551 COMPUTER METHODS OF STRUCTURAL ANALYSIS *3 credits*
Prerequisite: 306. Computer methods of structural analysis. Finite element software and interactive graphics. Stiffness concepts and matrix formulation of beams; modeling of simple and complex structural systems; vibration analysis using microcomputers.

452 STRUCTURAL VIBRATIONS AND EARTHQUAKES *3 credits*
Prerequisite: 306. Vibration and dynamic analysis of structural systems with one, two, or more degrees of freedom; beams, frames, buildings and bridges. Numerical methods of analysis. Elastic-plastic systems. Earthquake analysis of design. Earthquake codes.

453/553 OPTIMUM STRUCTURAL DESIGN *3 credits*
Prerequisite: 306. Basic concepts in structural optimization. Mathematical programming methods including unconstrained minimization, multidimensional minimization and constrained minimization.

454/554 ADVANCED MECHANICS OF MATERIALS *3 credits*
Prerequisite: 202 or equivalent. Three-dimensional state of stress and strain analysis. Unsymmetric bending of straight and curved members with shear deformation. Beams on elastic foundations. Saint Venant's torsional problems. Inelastic analysis of bending and torsional members. Introduction to energy method. Instability behavior of prismatic members.

463/563 TRANSPORTATION PLANNING *3 credits*
Prerequisite: 361. Theory and techniques for development, analysis and evaluation of transportation system plans. Emphasis on understanding and using tools and professional methods available to solve transportation planning problems, especially in urban areas.

464/564 HIGHWAY DESIGN *3 credits*
Prerequisite: 361. Study of modern design of geometrical and pavement features of highways. Design problem and computer use. Graduate students will produce a more complete design.

465/565 PAVEMENT ENGINEERING *3 credits*
Prerequisite: 361. Theories of elasticity, of viscoelasticity and of layered systems as applied to pavements. Pavement materials characterization; pavement design, pavement restoration for rigid and flexible pavements.

466/566 TRAFFIC ENGINEERING *3 credits*
Prerequisite: 361. Vehicle and urban travel characteristics, traffic flow theory, traffic studies, accidents and safety, traffic signs and marking, traffic signal planning, traffic control and transportation administration.

467 ADVANCED HIGHWAY DESIGN *3 credits*
Prerequisites: 464, autoCAD capability, or permission. Computer-aided geometrical design of highways including survey data input, digital terrain modeling, cross-section templates, horizontal and vertical roadway design, earthwork computations, and advanced topics.

468/568 HIGHWAY MATERIALS *3 credits*
Prerequisites: 361, 380 or permission. Properties of aggregates, manufacture and properties of portland cement concrete, properties of asphaltic materials, design and testing of hot mix asphalt pavement mixes and of surface treatments. Laboratory preparation of specimens and determination of properties. Graduate student requirement: Graduate students will be required to perform an additional eight-hour asphalt laboratory (Abson recovery of asphalt from solution) and to prepare a paper on a highway materials topic.

471 CONSTRUCTION ADMINISTRATION *3 credits*
Prerequisite: senior standing or permission. Organization for construction, construction contracts, estimating, bidding, bonds and insurance. Construction financial management and supervision of construction, scheduling using critical path method.

472 CONSTRUCTION ENGINEERING *3 credits*
Prerequisite: senior standing or permission. Construction equipment selection and management. Techniques of various engineering construction operations including blasting, tunneling, concrete framework and dewatering.

473 CONSTRUCTION MATERIALS *2 credits*
Prerequisites: 380, 4200:305. Composition, structure and mechanical behavior of structural materials such as concrete, wood, masonry, plastics and composite materials. Discussion of applications and principles of evaluating material properties.

474/574 UNDERGROUND CONSTRUCTION *2 credits*
Prerequisite: 314. Description of practices and techniques of underground construction. Selection of proper method for individual job. Design of underground openings, support systems and linings.

480 RELIABILITY-BASED DESIGN *3 credits*
Prerequisite: 3470:261 and senior standing. Probability concepts in civil engineering. Risk analysis and reliability based design.

481 CIVIL ENGINEERING SYSTEMS *2 credits*
Prerequisite: senior standing. Systems approach to civil engineering problems. Mathematical programming; project planning, scheduling and cost analysis; basic operations research methods; decision analysis. Management of engineering design of complex civil engineering projects.

482 SPECIAL PROJECTS *1-3 credits*
Prerequisites: senior standing and permission. Directed individual or group research or study in student's field of interest. Topic subject to approval by adviser.

490 SENIOR DESIGN *3 credits*
Prerequisites: senior standing. A civil engineering design project that emphasizes interdisciplinary teamwork to solve a substantial, currently relevant problem.

497 HONORS PROJECT *1-3 credits*
(May be repeated for a total of six credits) Prerequisite: senior standing in Honors Program. Individual creative project or design relevant to civil engineering, supervised by faculty member of the department.

ELECTRICAL ENGINEERING

4400:

101 INTRODUCTION TO ELECTRICAL AND COMPUTER ENGINEERING *1 credit*
Orientation to degree programs and careers in electrical engineering, computer engineering and computer science. For declared majors in electrical engineering.

231 CIRCUITS I *3 credits*
Prerequisite: 3650:291; corequisite: 3450:223. Fundamentals of circuit analysis including loop and nodal methods, phasor techniques, resonance, polyphase circuits and magnetic coupling

263 SWITCHING AND LOGIC *4 credits*
Prerequisites: 231. Corequisite: 340. Analysis of computer circuits. Introduction to use of Boolean algebra and mapping techniques in analyzing switching circuits. Sequential circuits.

320 BASIC ELECTRICAL ENGINEERING *4 credits*
Prerequisite: junior standing in engineering; corequisite: 3450:235. Covers fundamental aspects of electrical circuits, electronics and electrical machinery. Not open to an electrical engineering major.

332 CIRCUITS II *3 credits*
Prerequisite: 231; corequisite: 3450:235. Network theorems, Fourier methods, transfer functions. Laplace and Fourier transforms and their use in analyzing dynamic operation of circuits.

334 ACTIVE CIRCUITS *3 credits*
Prerequisite: 343. Applications of operational amplifiers including bilinear transfer functions, scaling, cascade design, biquad circuits, lowpass, high pass, bandpass-filters, Butterworth and Chebyshev response, sensitivity, delay filters, frequency transformations, ladder design, simulated element design, leapfrog simulation and switched-capacitors.

340 ELECTRIC CIRCUITS LABORATORY *2 credits*
Prerequisite: 231. To develop practical skills in electronic circuits. Experiments will involve analysis and measurement of circuits which will illustrate circuit theory concepts.

341 COMMUNICATIONS AND SIGNAL PROCESSING *3 credits*
Prerequisite: 263, 343. Introduces analog and digital communication systems and signal processing. Time-sampling and filtering. Modulation and demodulation techniques. Noise and bandwidth requirements. System design and performance analysis.

343 SIGNALS AND SYSTEMS *4 credits*
Prerequisites: 3450:235 and 4400:231. Linear systems theory and transform analysis techniques for continuous and discrete systems. Convolutions, Laplace transforms, continuous and discrete Fourier transforms. Difference equations and Z transforms.

353 ELECTROMAGNETICS I *4 credits*
Prerequisite: 231, 3450:223 or permission. Vector analysis. Electrostatics: electrostatic field, scalar potential, dielectrics, boundary-value problems. Magnetostatics: magnetic circuits. Max well's equations: Faraday's law, time-harmonic fields. Introduction to plane waves.

354 ELECTROMAGNETICS II *3 credits*
Theory and application of transmission lines: transient and steady-state waves. Plane EM waves: propagation, reflection, and refraction. Waveguides open and closed-boundary guiding structures.

360 PHYSICAL ELECTRONICS *3 credits*
Prerequisite: 263. Corequisite: 332. PN junction, diffusion, tunneling, FET and BJT device physics, equivalent circuits for electronic devices, time and frequency analysis, biasing and logic families.

361 ELECTRONIC DESIGN *4 credits*
Prerequisites: 343, 360. Power amplification, feedback, oscillators, linear integrated circuits, modulation and demodulation circuits.

365 MICROPROCESSOR SYSTEMS *3 credits*
Prerequisite: 263, 4450:208, 4450:280. Consideration of microcomputer hardware and software components. Microprocessor and peripheral devices. Instructions set of selected microprocessor. Introduction to microcomputer software.

371 CONTROL SYSTEMS I *4 credits*
Prerequisite: 343. Introduction to servomechanisms and feedback. Modeling and response of feedback control systems. Stability of linear systems. Experiments include analog simulation and basic servomechanism.

381 ENERGY CONVERSION *3 credits*
Prerequisites: 231. Corequisite: 353. Nonelectrical to electrical energy conversions and vice versa: thermal, chemical, solar. Fundamentals of electromechanical energy conversion. Principles of operation of transformers, commutator machines, induction and synchronous machines.

385 ENERGY CONVERSION LAB *2 credits*
Prerequisite: 381. Theoretical background and practical skills in machines measurements. Steady and transient states in transformers and machines recording and analysis. External characteristics of sources.

391 PROBLEMS *1-3 credits*
(May be taken more than once) Prerequisite: permission of department head. Select comprehensive problems, supervised discussions and computation periods.

401 SENIOR PROJECT I *2 credits*
Prerequisites: 361, 371 and senior standing. Design and preparation phase of an engineering design project. Requires a project approval presentation and a written proposal.

402 SENIOR PROJECT II *2 credits*
Prerequisite: 401. Implementation and evaluation phases of an engineering design project. Requires a project presentation and a final report.

447 RANDOM SIGNALS *3 credits*
Prerequisite: 343. Applications of set theory, discrete and continuous sample spaces; probability, random variables, distribution functions, density functions, stochastic processes, random signals, system function, power spectrum and correlation functions.

449/549 DIGITAL COMMUNICATION *3 credits*
Prerequisite: 341. Introduction to digital communication theory and systems; coding of analog and digital information; digital modulation techniques. Introduction to information theory.

451 ELECTROMAGNETIC COMPATIBILITY *3 credits*
Prerequisite: 360. Introduction to electromagnetics, electromagnetic compatibility, crosstalk and effects on computers, communication lines and systems.

453/553 ANTENNA THEORY *3 credits*
Prerequisite: 354. Theory of EM radiation. Wire antennas, arrays, receiving antennas, reciprocity. Integral equations for induced currents, self and mutual impedances. Equivalence principle, radiation from aperture antennas.

455/555 MICROWAVES *4 credits*
Prerequisite: 354. Dynamic fields, Maxwell's equation and wave equations. Field analysis of wave guides, microwave components, techniques and systems.

465/565 PROGRAMMABLE LOGIC *3 credits*
Prerequisite: 263. Digital design with programmable devices. PLD and FPGA architectures. Logic design and technology mapping tools.

470 MICROPROCESSOR INTERFACING *3 credits*
Prerequisites: 360, 263, 4450:208. Microprocessor structure, Bus Interface. Digital controller devices and their relationship to both the microcomputer and physical environment.

472/572 CONTROL SYSTEMS II *4 credits*
Prerequisite: 371. Sampled-data control system analysis and design. Discrete-time representation of sampled-data systems. Cascade, feedforward and state-variable compensation techniques. Digital computer implementation.

481 MODERN POWER SYSTEMS *3 credits*
Prerequisite: 381. Introduction to electricity utility load flow, faulty analysis, stability, surge protection and relaying.

483/583 POWER ELECTRONICS I *3 credits*
Prerequisite: 332. Steady-state analysis and design of power electronic converters: AC/DC converters (rectifiers), DC/DC converters, DC/AC PWM and resonant converters, AC/AC converters and cycloconverters.

484/584 POWER ELECTRONICS LABORATORY AND DESIGN PROJECT *2 credits*
Prerequisite: 483/583 or equivalent. Experiments on different types of power electronic converters: AC/DC, DC/DC, DC/AC, and AC/AC. Design project to include design, simulation, building, and testing of a power electronic circuit.

485/585 ELECTRIC MOTOR DRIVES *3 credits*
Prerequisite: 381. Application of electric machines, choice of motor for particular drive. Application of power semiconductor circuits in electric machinery.

497 HONORS PROJECT *1-3 credits*
(May be repeated for a total of six credits) Prerequisite: senior standing in Honors Program. Individual creative project or design relevant to electrical engineering, supervised by faculty member of the department.

498/598 TOPICS IN ELECTRICAL ENGINEERING *1-2 credits*
(May be taken more than once) Prerequisite: permission of department head. Special topics in electrical engineering.

COMPUTER ENGINEERING 4450:

101 INTRODUCTION TO ELECTRICAL ENGINEERING AND COMPUTER ENGINEERING *1 credit*
Orientation to degree programs and careers in computer engineering, electrical engineering and computer science. For declared majors in computer engineering.

208 PROGRAMMING FOR ENGINEERS *3 credits*
Prerequisite: 4100:101 or permission. Introduction to programming. Environment and tools. C programming language. Machine level data forms and organization.

280 INTRODUCTION TO COMPUTER SYSTEMS *3 credits*
Prerequisite: 208 or 3460:209 and 3450:208. Introduces the design and architecture of modern computer systems. Data and instruction representation. Conventional computer organization. Hardware and software design processes. The hardware/software interface.

370 VLSI DESIGN *3 credits*
Prerequisite: 465, 4400:360.Use of VSLI design environments in the development of large digital systems. Schematic capture, simulation and verification. Integration of standard building blocks. Design project.

410 COMPUTER METHODS *3 credits*
Prerequisites: 208 or senior standing. Numerical modeling for embedded scientific applications. Accuracy with fixed and floating point systems. Analysis of complexity. Distributed processing. Object-oriented packaging in C++.

420/520 OBJECT ORIENTED DESIGN *3 credits*
Prerequisites: 208 or equivalent. Investigation of object-oriented design paradigm and the design implementation with the object-oriented programming language C++.

432 SYSTEM SIMULATION *3 credits*
Prerequisite: 410 and 4400:371. Simulation of continuous systems on a digital computer. Methods and tools for linear, nonlinear, and chaotic systems.

441 EXPERT SYSTEMS DESIGN AND DEVELOPMENT *3 credits*
Prerequisite: Senior standing or permission. Introduction to the design and development of expert systems.

442 KNOWLEDGE ENGINEERING *3 credits*
Prerequisite: 441 or equivalent. Study of knowledge acquisition and expert system project management.

443 FRAME-BASED EXPERT SYSTEM DESIGN *3 credits*
Prerequisite: permission. Introduction to the design and development of frame-based expert systems.

444 FUZZY LOGIC EXPERT SYSTEM DESIGN *3 credits*
Prerequisite: permission. Introduction to the design and development of fuzzy logic expert systems.

470/570 INTEGRATED SYSTEM DESIGN *3 credits*
Prerequisite for 470: 4400:465. Prerequisite for 570: 4400:565. Introduction to computer structures, design methods and development tools for VLSI systems. nMOS devices and fabrication. Processing and control design. Layout methods and tools. Design systems.

480 ADVANCED PROCESSOR DESIGN *3 credits*
Prerequisite: 3460:465 Design of advanced processors at the microarchitecture level. Extraction and exploitation of instruction level parallelism. Superscalar and superpipelined VLIW processors. Compilation techniques.

495 DESIGN PROJECT I *3 credits*
Corequisite: 4400:470 Design phase of an interdisciplinary engineering design project. Starting with preliminary requirements, each student team develops formal requirements, proposal and design.

496 DESIGN PROJECT II *3 credits*
Prerequisite: 495 Implementation phases of the engineering design project. Student teams carry out detailed design, implementation and testing, then demonstrate their project. A final report is required.

497/597 SPECIAL TOPICS: COMPUTER ENGINEERING *1-2 credits*
(May be taken more than once) Prerequisite: permission of department chair. Special topics in computer engineering.

MECHANICAL ENGINEERING 4600:

165 TOOLS FOR MECHANICAL ENGINEERING *3 credits*
Personal computer DOS system, word processing, spreadsheet, computer-aided drafting, math calculating package, mechanical graphics, and introduction to mechanical engineering program and curriculum.

203 DYNAMICS *3 credits*
Prerequisite: 4300:201. Kinematics and kinetics of particles and rigid bodies. Principles of work, energy, momentum and impulse.

300 THERMODYNAMICS I *4 credits*
Prerequisites: 3450:221 and 3650:291. Basic concepts of thermodynamics. The pure substance, the system and first and second laws of thermodynamics. Entropy, availability, power cycles.

301 THERMODYNAMICS II *3 credits*
Prerequisites: 300 and 310. Thermodynamics of state, gas mixtures and gas-vapor mixtures. Combustion. Thermodynamics of gas flow.

305 THERMAL SCIENCE *2 credits*
Prerequisites: 3450:222 and 3650:291. Credit not allowed for both 300 and 305. Introduction to first and second laws of thermodynamics, perfect gas relationships, equations of state, cycle analysis. Introduction to conduction, convection and radiation heat transfer.

310 FLUID MECHANICS *3 credits*
Prerequisite: 203. Properties and behavior of gases and liquids at rest and in motion. Energy equation. Flow in conduits. Forces on body submerged in moving fluid. Dimensional analysis and similitude.

315 HEAT TRANSFER *3 credits*
Prerequisites: 165, 300, 310, or 3460:201. Fundamentals of heat transfer by conduction, convection and radiation.

321 KINEMATICS OF MACHINES *3 credits*
Prerequisites: 165, 203. Displacements, velocities, accelerations and introduction to plan motion mechanisms. Introduction to design of gears, gear trains and cams.

336 ANALYSIS OF MECHANICAL COMPONENTS *3 credits*
Prerequisites: 165, 4300:202. Analysis of stress and strain at a point. Mohr's circles, shear centers, elastic instability. Stresses in thick and thin cylinders. Fatigue analysis.

337 DESIGN OF MECHANICAL COMPONENTS *3 credits*
Prerequisite: 336. Application of stress analysis to design of fasteners, welds, springs, ball bearings and gears. Introduction to journal bearings and lubrication. Component design projects.

340 SYSTEMS DYNAMICS AND RESPONSE *3 credits*
Prerequisites: 203, 3450:235. A unified approach to modeling, analysis, response and stability of engineering systems: analog, digital and hybrid computer simulation of interdisciplinary engineering problems are included.

360 ENGINEERING ANALYSIS *3 credits*
Prerequisite: 3450:235. Numerical methods of solution of mechanical engineering problems.

380 MECHANICAL METALLURGY *2 credits*
Prerequisite: 336. Structures of common metallic materials and study of their macroscopic mechanical behavior. Phase changes and heat treatment. Theories of failure.

400/500 THERMAL SYSTEM COMPONENTS *3 credits*
Prerequisites: 301, 310, 315. Performance analysis and design of basic components of thermal energy exchange and conversion systems. Components studied include heat exchangers, pumps, compressors, turbines and expansion engines.

401 DESIGN OF ENERGY SYSTEMS *2 credits*
Prerequisites: 400, 460. Analysis and design of systems for energy exchange. Performance of energy system components and their integration into complex practical systems. Design project required.

410/510 HEATING AND AIR CONDITIONING *3 credits*
Prerequisites: 301, 315. Thermodynamics of gas mixtures. Design and selection of air conditioning equipment. Control of gas mixtures, heating, cooling and humidity.

411/511 COMPRESSIBLE FLUID MECHANICS *3 credits*
Prerequisites: 301, 310. Subsonic and supersonic flow in nozzles, diffusers and ducts. One-dimensional reactive gas dynamics. Prandtl-Myer theory. Applications to design and analysis of compressors, turbines and propulsion devices.

412/512 FUNDAMENTALS OF FLIGHT *3 credits*
Prerequisite: 310 or equivalent or permission of instructor. Introduction to basic aerodynamics, airplane performance, stability and control, astronautics and propulsion. Design considerations are emphasized.

413/513 INTRODUCTION TO AERODYNAMICS *3 credits*
Introduction of aerodynamic concepts; includes conformal transformations, theory of thin airfoils, 2-dimensional airfoil theory, wings of finite span, lifting line theories, lumped vortex, vortex lattice, and panel methods.

414/514 INTRODUCTION TO AEROSPACE PROPULSION *3 credits*
Introduction to propulsion systems currently used in aerospace fields; propulsion principles for turbojets, turbofans, ramjets, chemical rockets, and electrical rocket propulsion.

415/515 ENERGY CONVERSION *3 credits*
Prerequisites: 301, 315. Topics from fields of internal combustion engines, cycle analysis, modern conversion devices.

416/516 HEAT TRANSFER PROCESSES *3 credits*
Prerequisite: 315. Analysis, design of extended surfaces. Natural convection and mixed convection, combined modes of heat transfer and heat transfer with phase changes.

420 INTRODUCTION TO FINITE ELEMENT METHOD *3 credits*
Prerequisite: 336. Introduction to matrix and finite element methods in mechanical engineering. Stiffness and flexibility formulations in both solid mechanics and thermal sciences. Basic finite element methods and its implementation. Application of existing software package. Pre- and post-processing using interactive computer graphics.

422/522 EXPERIMENTAL STRESS ANALYSIS I *3 credits*
Prerequisite: 336 or 4300:202. Experimental methods of determining stress or strain: brittle lacquer, strain gages, photoelasticity.

430/530 MACHINE DYNAMICS *3 credits*
Prerequisite: 321. Static and dynamic forces in machines, products of inertia, dynamic equivalence, flywheels. Balancing of rotating, reciprocating, cyclic plane motion. Computer simulation of transient mechanism dynamics, other topics in advanced dynamics.

431/531 FUNDAMENTALS OF MECHANICAL VIBRATIONS *3 credits*
Prerequisites: 203 and 3450:235. Undamped and forced vibrations of systems having one or two degrees of freedom.

432/532 VEHICLE DYNAMICS *3 credits*
Application of dynamic systems analysis techniques to road vehicles. Newtonian and Lagrangian methods. Tire/road interface. Ride characteristics, handling and stability. Digital simulation.

441/541 CONTROL SYSTEMS DESIGN *3 credits*
Prerequisites: 315, 431, 340. Methods of feedback control design such as minimized error, root-locus, frequency domain. Compensation techniques. Multivariable and nonlinear design methods and computer-aided control design.

442/542 INDUSTRIAL AUTOMATIC CONTROL *3 credits*
Prerequisite: 440 or equivalent. Operation of basic control mechanisms. Study of mechanical, hydraulic, pneumatic, fluidic control systems, including application areas. Tuning of control devices for optimum performance of system. Case studies on control applications from industry, e.g. boilers, furnaces, process heaters.

443/543 OPTIMIZATION METHODS IN MECHANICAL ENGINEERING *3 credits*
Prerequisite: 360. Development and method of solution of optimization problems in mechanical engineering. The use of dynamic programming and operational research methods for optimization including computer utilization and applications.

444/544 ROBOT DESIGN, CONTROL AND APPLICATION *3 credits*
Prerequisites: 321, 440 or equivalent. Robot design and control. Kinematic transformations, velocities and accelerations, path trajectories and dynamics, control and sensing in robotics. The automated factory with robot applications.

450/550 INTRODUCTION TO COMPUTATIONAL FLUID FLOW AND CONVECTION *3 credits*
Prerequisites: 315, 360, or permission of instructor. Numerical modeling of fluid/thermal systems; numerical solution of the momentum and thermal boundary layer equations; flow simulation using advanced heat transfer/fluid/graphics packages.

460 CONCEPTS OF DESIGN *3 credits*
Prerequisite: 337; corequisite: 400. Design process. Creativity and inventiveness. Tools of decision making, engineering economics, reliability, optimization. Case studies.

461 DESIGN OF MECHANICAL SYSTEMS *2 credits*
Prerequisites: 321, 431, 460. Detailed mechanical design project and case studies.

462/562 PRESSURE VESSEL DESIGN *3 credits*
Prerequisite: 336 or 4300:202. Introduction to modern pressure vessel technology. Topics include basic structural considerations, materials and their environment and design- construction features.

463/563 COMPUTER AIDED DESIGN AND MANUFACTURING *3 credits*
The use of computer systems to assist in the creation, modification, analysis, or optimization of engineering designs, and to plan, manage, and control manufacturing plants.

463 MECHANICAL ENGINEERING MEASUREMENTS LABORATORY *2 credits*
Prerequisites: 203, 300, 310. Development of methods to measure temperature, pressure, flow rate, viscosity and motion. Includes both lecture and laboratory experience and emphasizes calibration and accuracy of appropriate instruments.

484 MECHANICAL ENGINEERING LABORATORY *2 credits*
Prerequisite: 483; corequisites: 315 and 431. Laboratory experiments in area of dynamics, vibrations, thermodynamics, fluids, heat transfer and controls.

486 SPECIAL TOPICS *1-3 credits*
Prerequisite: permission. Brief description of current content to be announced in schedule of classes.

497 HONORS PROJECT *1-2 credits*
Prerequisite: senior standing in Honors Program. Individual creative project in thermal science, mechanics or design relevant to mechanical engineering, supervised by faculty member of the department.

498 EXPERIMENTAL INVESTIGATION IN MECHANICAL ENGINEERING *1-2 credits*
Individual independent laboratory investigations in areas relevant to mechanical engineering. Student suggests a project and makes appropriate arrangements with faculty for supervision.

MECHANICAL POLYMER ENGINEERING

4700:

281 POLYMER SCIENCE FOR ENGINEERS *2 Credits*
Prerequisites: 3150:151 and 3150:152. Chemical bonds and structure of organic molecules, polymer chain structure, amorphous and crystalline morphology and structural characterization, polymerization and copolymerization, experimental demonstrations, typical solid-state and flow properties.

321 POLYMER FLUID MECHANICS *3 Credits*
Prerequisite: 4600:310 or equivalent. Rheological properties and flow characteristics of polymer fluid systems; non-Newtonian viscosity, viscoelasticity.

381 POLYMER MORPHOLOGY FOR ENGINEERS *3 Credits*
Prerequisites: 3150:151, 3650:292, 4600:380 or permission. Fundamental understanding of solid structure, crystallography and morphology, processed polymers, co-polymers and their blends.

422 POLYMER PROCESSING *3 Credits*
Prerequisites: 321 and 4600:315 or equivalent. Polymer processing technology. Basic studies of flow in extrusion, molding, and other processing methods.

425 INTRODUCTION TO BLENDING AND COMPOUNDING OF POLYMERS *3 credits*
Prerequisites: 4200:321 or 4300:341 or 4600:310 or permission. Nature of polymer blends and compounds and their applications. Preparation and technology using batch and continuous mixers, mixing mechanisms.

427 MOLD DESIGN *3 credits*
Prerequisites: 422 or permission. Molding methods to manufacture polymeric products. Machinery, materials, molds, equipment, computer-aided design.

450 ENGINEERING PROPERTIES OF POLYMERS *3 credits*
Prerequisites: 4600:315, 336 and 380 or permission. Introductory course to engineering properties and processing of polymers. Analysis of mechanical tests of polymers in the glassy, rubbery, and fluid states. Product design. Concepts of rheology, rheometry and polymer processing.

451 POLYMER ENGINEERING LABORATORY *2 Credits*
Prerequisite: 321 and 4600:483. Corequisite: 422 or permission. Laboratory experiments on the rheological characterization of polymer melts, fabrication of engineering products, structural investigation of polymeric parts.

499 POLYMER ENGINEERING PROJECT *1-3 credits*
Prerequisite: Senior standing and permission. Special topics intended for undergraduate seniors in polymer engineering.

BIOMEDICAL ENGINEERING

4800:

409 INTRODUCTION TO BIOMEDICAL ENGINEERING RESEARCH *3 credits*
Applisation of engineering principles to local area medical research. Includes biomaterials, orthopedics, artificial organs, biostereometrics, biometrics, biological signal and image analysis, biomechanics and computers in medicine.

CONSTRUCTION TECHNOLOGY

4980:

351 CONSTRUCTION QUALITY CONTROL *2 credits*
Prerequisites: 2980:237, 238 or permission. Overview of quality control concepts and techniques as related to the construction industry including the necessary statistical tools; exposes students to civil, mechanical and electrical inspection requirements.

352 FIELD MANAGEMENT *2 credits*
Prerequisites: 2980:222, 245 or permission. Planning, scheduling and controlling of field work within time and cost constraints.

354 FOUNDATION CONSTRUCTION METHODS *3 credits*
Prerequisite: 2980:234. Soil mechanics and soils exploration as related to construction. Foundation construction methods and practice in the interest of safety and suitable economy.

355 COMPUTER APPLICATIONS IN CONSTRUCTION *3 credits*
Prerequisite: admission into the BCT program or permission of instructor. Focuses on realtime and batch programming of construction-oriented problems. Includes graphics, simulation, basic programming, flowcharting, hardware, software and management information applications.

356 SAFETY IN CONSTRUCTION *2 credits*
The purpose of this course is to explain what creates hazards and why, and to suggest where to anticipate trouble in each phase of the work as it progresses.

357 CONSTRUCTION ADMINISTRATION *2 credits*
Prerequisite: junior standing. Construction specification, office organization, preparation of construction documents, bidding, bonds. Construction management and supervision. Agreement and contracts.

358 ADVANCED ESTIMATING *3 credits*
Prerequisite: 355 or permission of the instructor. This course focuses on estimating and bidding for public and private construction. Includes heavy/highway, industrial and building construction with microcomputers to facilitate bid price.

361 CONSTRUCTION FORMWORK *3 credits*
Prerequisite: 2980:234 or permission. Introduction to design and construction of field structures. Emphasis on design and construction of formwork and temporary wood structures.

453 LEGAL ASPECTS OF CONSTRUCTION *2 credits*
Study of business of contracting and subcontracting and legal problems therein such as breach, partial performance, payment, insolvency, subsurface. Review of AIA standard contracts and construction industry rules of arbitration.

462 MECHANICAL SERVICE SYSTEMS *3 credits*
Introduction to materials and equipment used in mechanical heating, ventilating, air conditioning, water and waste systems.

463 ELECTRICAL SERVICE SYSTEMS *3 credits*
Introduction to materials and equipment in electrical and acoustical systems of buildings. Includes illumination, electrical sources, materials and distribution, acoustical problems and materials.

465 HEAVY CONSTRUCTION METHODS *3 credits*
Prerequisite: 2980:232 or 4300:472. Management techniques in planning, estimating and directing heavy construction operations.

466 HYDRAULICS *3 credits*
Prerequisite: 2020:233. Introduction to hydrology. Flow in closed conduits and open channels, distribution, systems, storage requirements and basic concepts of hydraulic structures. Basic concepts of seepage and working knowledge of pumps.

467 SPECIAL PROJECTS *1-3 credits*
Prerequisites: senior standing and permission of instructor. Directed individual or group research or study in student's field of interest. Topic subject to approval by adviser.

468 CONSTRUCTION MANAGEMENT *3 credits*
Prerequisites: senior-level standing, 352 and 357. Construction Management takes established construction practices, current technological advances and latest management methods and makes them into an efficient, smooth working system.

470 ADVANCED CONSTRUCTION GRAPHICS *3 credits*
This course focuses on construction graphics through microbased CAD. Topics include microcomputer systems, digitizers, plotters, printers, menus, keyboard and mouse input, introduction and advanced techniques.

College of Education

COOPERATIVE EDUCATION

5000:

301 COOPERATIVE EDUCATION *0 credits*
(May be repeated) For cooperative education students only. Work experience in business, industry or governmental agency. Comprehensive performance evaluation and written report required.

TEACHER EDUCATION

CORE PROGRAM

5050:

210 CHARACTERISTICS OF LEARNERS *3 credits*
Prerequisite: Completion of all College of Education admission requirements; Corequisite: 211. Describe cognitive, psychosocial, physical, language, and moral development of learners Pre-K through adult. Identifies learner needs, roles of teachers and schools in fostering opti- mal development. (10 hours of field experience included.)

211 TEACHING AND LEARNING STRATEGIES *3 credits*
Prerequisite: Completion of all College of Education admission requirements; Corequisite: 210. From course content and activities, students will recognize, select, and practice various instructional models. Students will acquire and apply appropriate learning and motivational strategies. (10 hours of field experience included.)

310 INSTRUCTIONAL DESIGN *3 credits*
Prerequisite: 210, 211; Corequisite: 311. Design and teach lessons using instructional models, strategies, and resources for students with different characteristics and design appropriate assessments to measure content mastery.

311 INSTRUCTIONAL RESOURCES *3 credits*
Prerequisites: 210, 211; Corequisite: 310. Examines existing and developing media, technological, human and environmental resources as they relate to learning. Includes identifying, locating, evaluating, using, designing, and preparing educational resources.

320 DIVERSITY IN LEARNERS *3 credits*
Prerequisites: 210, 211. Students learn to appreciate common core culture, the diversity in the student population and the democratic ideal of equal access to educational opportunity. (10 hours of field experience included.)

330 CLASSROOM MANAGEMENT *3 credits*
Prerequisites: 210, 211. Content regarding effective organization of the classroom as well as procedures and models for mediation of student behaviors will be presented.

410 PROFESSIONAL ISSUES IN EDUCATION *3 credits*
Prerequisites: 310, 311, 320, 330. Coursework applies social and philosophical foundations of education to current and historical issues in education with attention to roles and responsibilities of contemporary teachers.

EDUCATIONAL FOUNDATIONS AND LEADERSHIP

5100:

150 DEMOCRACY AND EDUCATION *3 credits*
Based on an interdisciplinary inquiry, this course examines varied theories and practices of democratic education.

211 FUNDAMENTAL EDUCATIONAL COMPUTER SKILLS *1 credit*
Elective Course: Fundamental Computer Skills for education majors with little or no computer experience. Includes word processing, databases, graphics and communications. Cannot substitute for any required course.

258 SMALL GROUP INSTRUCTION *1-3 credits*
(May be repeated for a total of three credits) Prerequisites: 250 and 3750:100 or equivalent and permission of instructor. Study of student-centered group leadership skills for facilitating classroom cognitive learning. Student exposed to basic literature related to student-centered style, trained in appropriate observational techniques and provided practice in leading small instructional groups.

320 LEARNING AND INDIVIDUALIZED INSTRUCTION *2 credits*
Prerequisite: 250. Behavioral approach to learning and the management of students. Emphasizes design of instructional sequences using behavioral analysis of objectives in both cognitive and psychomotor domains.

412/512 DESIGN AND PRODUCTION OF INSTRUCTIONAL MATERIALS *3 credits (20 clinical hours)*
Design, adaptation, and preparation of instructional materials using graphics, transparency production, video equipment, computer authoring software, mounting and laminating processes, photography, and other procedures.

414/514 ORGANIZING AND SUPERVISING EDUCATIONAL MEDIA PROGRAMS *3 credits*
Prerequisite: 310 or permission of the instructor. Procedures for planning, organizing and evaluating educational media programs including media facilities and services.

420/520 INTRODUCTION TO INSTRUCTIONAL COMPUTING *3 credits*
Examines use of wordprocessing, spread sheets, databases, graphics, telecommunications and authoring software in both educational and business settings and evaluates instructional and applications software.

430 SENIOR HONORS PROJECT: FOUNDATIONS *1-6 credits*
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors Program and permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry.

480 SPECIAL TOPICS: EDUCATIONAL FOUNDATIONS *1-4 credits*
(May be repeated with a change in topic) Prerequisite: permission of instructor. Group study of special topics of critical, contemporary concern in professional education.

490,1,2/590,1,2 WORKSHOP *1-3 credits each*
Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units.

494/594 EDUCATIONAL INSTITUTES *1-4 credits*
Special course designed as in-service upgrading programs.

497 INDEPENDENT STUDY *1-3 credits*
(May be repeated for a total of six credits) Prerequisites: permission of department head and instructor. Specific area of study determined in accordance with program and professional goals.

ELEMENTARY EDUCATION

5200:

200 PRE-KINDERGARTEN PARTICIPATION I *1 credit (30 field hours)*
Prerequisite: 7400:265, 2200:245. Planned field experience in a pre-kindergarten infant/toddler classroom where students work with children age birth to 3 years both individually and in small groups.

215 THE CHILD, THE FAMILY, AND THE SCHOOL *2 credits (20 clinical/field hours)*
Prerequisite: 5050:210. Social, emotional, cognitive, physical, moral development of elementary and middle school children. Influence, interaction of home, family, peers, and school on the development of children.

220 VISUAL ARTS CULTURE IN THE ELEMENTARY SCHOOL *1 credit*
Art education concepts, structures, and knowledge base to provide curricular opportunities for education majors to develop as creative problem solvers in an elementary school setting. First offered Fall 1993.

225 ELEMENTARY FIELD EXPERIENCE I *2 credits*
Prerequisite: Student must be enrolled in or have completed 286 and 141. Planned field experience emphasizing field settings where the student works with small groups of children in an urban elementary classroom.

245 UNDERSTANDING LANGUAGE LITERACY *3 credits*
Prerequisite: 5050:210. Children's language literacy learning is explored through an integrated instructional model focusing upon reading, writing, speaking, and listening development which incorporates use of children's literature.

250 DEVELOPING PROCESSES OF INVESTIGATION *3 credits*
Prerequisites: 5050:210, 211. This course will enable students to identify and acquires those investigative and discovery processes and skills that are common in mathematics, science, and social studies.

286 CHILDREN'S LITERATURE *3 credits (15 clinical hours)*
Survey of materials for children in prose, poetry and illustrations from early historical periods to modern types; criteria of selection and methods of presentation critically examined.

300 PRE-KINDERGARTEN PARTICIPATION II *1 credit (30 field hours)*
Prerequisite: 200, 5610:450. Planned field experience in pre-kindergarten early intervention program where student works in both small and large group settings and with individual children.

310 INTRODUCTION TO EARLY CHILDHOOD EDUCATION *3 credits (10 clinical hours)*
Prerequisite: 7400:265. Provides the student with background information on who is serviced, types of programs available, role of the adults and goals of early childhood education.

315 ISSUES AND TRENDS IN EARLY CHILDHOOD EDUCATION *3 credits (10 clinical hours)*
Prerequisite: 7400:265. In-depth examination of issues impacting on children from birth to kindergarten, their families and the early childhood three educational process.

316 KINDERGARTEN CURRICULUM AND INSTRUCTION *4 credits*
Prerequisite: 7400:265. Developmentally appropriate curriculum for five- and six-year old children will be explored. The educational, social and political issues impacting kindergarten programming will be identified.

320 VISUAL ARTS APPLICATION IN THE ELEMENTARY SCHOOL *3 credits*
Prerequisite: 5200:220. Exploration of materials, methods, processes and visual techniques relating two and three-dimensional art experiences for the teacher of elementary children.

321 INSTRUCTIONAL TECHNIQUES: MODERN LANGUAGES – K-8 *3 credits*
Focus on theories of language acquisition, models of instruction suited to teaching foreign languages and cultures in the elementary school (K-8), and strategies that promote appropriate levels of language proficiency and competency for young learners.

325 TEACHING PHONICS IN LANGUAGE LITERACY FIELD EXPERIENCE *2 credits*
Prerequisite: 245. Corequisite: 345. Planned field experience emphasizing field settings where the student works with large groups of children in an integrated urban or suburban classroom.

330 KINDERGARTEN POLICIES, ISSUES, AND TRENDS *4 credits (20 clinical/field hours)*
Prerequisite: 7400:265. In-depth examination of policies, issues, and trends influencing kindergarten children, their families, and the kindergarten educational process.

331 KINDERGARTEN METHODS AND MATERIAL *4 credits (20 clinical/field hours)*
Prerequisites: 330 and 7400:265. Scope and sequence of kindergarten curricula, with emphasis on developmentally appropriate methods and materials.

333 SCIENCE FOR THE EARLY CHILDHOOD/MIDDLE LEVEL GRADES *3 credits*
Prerequisites: 5050:210, 211. Development of a point of view toward science teaching and study of methods of presenting science material.

334 TEACHING ART IN THE ELEMENTARY SCHOOL *3 credits*
Prerequisite: Admission to Teacher Education Program, Art K-12. Visual arts in elementary schools. Art education concepts with studio orientation including history of art education, developmental stages, curriculum and organization, methods, evaluation and research, and practical participation.

336 TEACHING OF ELEMENTARY SCHOOL MATHEMATICS I *3 credits*
Prerequisite: 5100:250. Trends in instruction in elementary schools. Procedures for development of mathematical concepts and skills.

338 TEACHING OF SOCIAL STUDIES IN EARLY CHILDHOOD/MIDDLE LEVEL GRADES *3 credits*
Prerequisites: 5050:210, 211. Trends in social studies instruction in early childhood/middle level classrooms will be discussed as well as varied means of implementing programs.

342 TEACHING EARLY CHILDHOOD/MIDDLE LEVEL MATH *3 credits*
Prerequisites: 5050:210, 211. Trends in mathematics instruction in early childhood/middle level classrooms. Procedures for the development of mathematics concepts and skills.

345 TEACHING PHONICS IN LANGUAGE LITERATURE *4 credits*
Prerequisite: 245. Corequisite: 325. The teaching of phonics in language literacy is explored through an integrated instructional model. Strategies for teaching phonics and language literacy will be developed.

350 INTEGRATING LANGUAGE ARTS AND MEDIA *3 credits*
This course provides preservice middle grade teachers with strategies for integrating the language arts in the areas of reading, writing, speaking, listening, media, and drama.

351 MODES OF WRITING FOR THE MIDDLE GRADES *3 credits*
This course will provide middle school language arts teachers the understandings and skills necessary to teach writing in varieties of forms and modes including newswriting.

355 LANGUAGE AND LITERACY IN EARLY CHILDHOOD *3 credits*
Prerequisite: 5200:310 and 7400:265. A framework for the development of literacy from birth to age 8. Factors influencing emerging literacy will be explored. Emphasis on young children's literature.

360 TEACHING IN THE EARLY CHILDHOOD CENTER *2 credits (10 clinical hours)*
Prerequisite: 7400:280, 270. Corequisite: 370. Assists students with the integration of knowledge, skills, attitudes and values learned in the pre-kindergarten program as they participate with young children.

365 COMPREHENSIVE MUSICIANSHIP FOR EARLY CHILDHOOD/MIDDLE LEVEL *3 credits*
Prerequisite: Admission to the College of Education. Designed to afford a prospective classroom teacher the opportunity to develop individual musical skills in creativity, performance, and listening as a means of enhancing teaching through use of music.

370 EARLY CHILDHOOD CENTER LABORATORY *2 credits (53 clinical hours)*
Prerequisites: 7400:280, 270. Corequisite: 360. This lab is an integrated practical experience in the University's Center for Child Development under the direction of experienced teachers.

395 FIELD EXPERIENCE *1-3 credits*
Prerequisites: permission of adviser and department head. Independent field work in area selected by student's adviser, based on student's needs.

403 STUDENT TEACHING SEMINAR *1 credit (15 clinical hours)*
Prerequisite: senior standing. In conjunction with Student Teaching. Synthesis of contemporary problems encountered during student teaching experience. Exchange of ideas regarding role of new teacher entering profession.

411/511 CREATIVE TECHNIQUES FOR EXPLORING CHILDREN'S LITERATURE *2 credits*
Prerequisite: 286. Examination of techniques for interpretation of children's literature including storytelling, creative dramatics, reader's theatre and choral speaking.

415/515 MICROCOMPUTER APPLICATIONS FOR ELEMENTARY TEACHERS *3 credits*
Prerequisite: 5050:311 or Graduate status. Focus is upon developing student competence in the use of elementary education computer technology to enhance both the teacher's personal and professional productivity.

425 EVALUATING LANGUAGE LITERACY FIELD EXPERIENCE *1 credit*
Prerequisite: 245, 325, 345. Corequisite: 445. Planned field experience emphasizing field settings where the student works with large groups of children in integrated urban or suburban classrooms.

430 SENIOR HONORS PROJECT: ELEMENTARY *1-6 credits*
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors Program and permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry.

435/535 ACTIVITIES TO INDIVIDUALIZE SOCIAL STUDIES *2 credits*
Prerequisite: 338. Development of materials and activities (learning games, simulation games, simulations, learning stations, programmed field trips and map activities) to provide teacher with variety of techniques in order to develop an individualized, student-involved social studies program.

436/536 GEOMETRY AND MEASUREMENT IN ELEMENTARY SCHOOL MATHEMATICS *3 credits*
Prerequisite: 336. Trends in geometry and measurement instruction in elementary school. Procedures for development of important geometric concepts and measurement skills.

437/537 STRUCTURE OF THE NUMBER SYSTEM IN ELEMENTARY SCHOOL MATHEMATICS *3 credits*
Prerequisite: 336. Applied and advanced topics in mathematics education in elementary school. Thorough investigation of number system presently being taught in elementary school.

438/538 MATERIALS AND LABORATORY TECHNIQUES IN ELEMENTARY SCHOOL MATHEMATICS *3 credits*
Prerequisite: 336. Applied mathematics. Construction and application of mathematical models. Procedures for development of important mathematical concepts through the laboratory approach.

439/539 PROPERTIES OF NUMBERS IN ELEMENTARY SCHOOL MATHEMATICS *3 credits*
Prerequisite: 336. Investigation of those number properties that help explain how laws of arithmetic work. Procedures for development of important arithmetic concepts and computational skills.

440/540 CONTEMPORARY ELEMENTARY SCHOOL SCIENCE PROGRAMS *2 credits*
Prerequisite: 333. Contemporary elementary science programs critically analyzed and their procedure developed and implemented in University classroom.

445 EVALUATING LANGUAGE LITERACY *2 credits*
Prerequisite: 245, 325, 345. Corequisite: 425. Explores assessment of students' progress in language literacy. Formal and informal instruments identifying progress in reading, writing, speaking, and listening are examined linked to work in the field.

450 INTEGRATED CURRICULUM APPLICATION IN THE ELEMENTARY SCHOOL *3 credits*
Focus on the design and presentation of integrated lessons and on becoming an effective decision maker in delivering integrated, multidisciplinary instructional programs to diverse populations.

480 SPECIAL TOPICS: ELEMENTARY EDUCATION *1-4 credits*
(May be repeated with a change in topic) Prerequisite: permission of instructor. Group study of special topics of critical, contemporary concern in professional education.

490,1,2,3/590,1,2,3 WORKSHOP *1-3 credits each*
Elective workshop for elementary education major who would pursue further refinement of teaching skills. Emphasizes demonstrations of teaching techniques and development of suitable teaching devices.

494/594 EDUCATIONAL INSTITUTES *1-4 credits*
Special courses designed as in-service upgrading programs. Frequently provided with the support of national foundations.

495 STUDENT TEACHING *4-8 credits (322 field hours)*
Prerequisites: senior standing and 300. Planned teaching experience (in elementary school) selected and supervised by Office of Educational Field Experience.

496 STUDENT TEACHING *1-6 credits*
The capstone field experience for elementary education majors. Students will have two classroom experiences one primary level and one intermediate level.

497 INDEPENDENT STUDY *1-3 credits*
Prerequisites: permission of adviser and department head. Specific area of curriculum investigation pertinent to elementary education as determined by student's academic needs.

498 STUDENT TEACHING COLLOQUIUM *1 credit*
Corequisite: 495. Prepares students for the final phase of becoming decision makers. The colloquium will explore problems encountered in classrooms, initiate reflective practice and concepts of action research, and focus on preparation of unit outlines with emphasis on applied decision making.

READING 5250:

341 LABORATORY PRACTICUM IN READING *3 credits*
Prerequisite: 5200:339. Laboratory experience with classroom, small groups and individual situations. A student diagnoses, implements procedures and follows prescribed reading improvement practices.

411/511 MATERIALS AND ORGANIZATIONS FOR READING INSTRUCTION *3 credits*
Prerequisite: 5200:339. Professional problems of selection and evaluation of reading materials and classroom organizations explored.

440/540 DEVELOPMENTAL READING IN THE CONTENT AREAS ELEMENTARY *3 credits*
Prerequisite: 5200:337 or permission of instructor. Nature of reading skills relating to content subjects. Methods and materials needed to promote reading achievement in content subjects by the elementary classroom teacher.

441/541 LANGUAGE AND ITS RELATIONSHIP TO READING IN THE ELEMENTARY SCHOOL *3 credits*
Prerequisite: 5200:337 or permission of the instructor. An overview of the linguistic field in the teaching of reading in the elementary school. A discussion of major linguistic principles for classroom application in grades K-8.

442/542 TEACHING READING TO CULTURALLY DIVERSE LEARNERS *3 credits*
Prerequisite: 5200:337 or by permission of the instructor. The course is designed to provide a student with knowledge, skills and attitudes which will enable employment of effective methods of teaching reading to culturally different learners, and/or learners whose language patterns are nonstandard.

480 SPECIAL TOPICS: ELEMENTARY READING INSTRUCTION *1-4 credits*
(May be repeated with a change in topic) Prerequisite: permission of instructor. Group study of special topics of critical, contemporary concern in professional education.

SECONDARY EDUCATION

5300:

311 INSTRUCTIONAL TECHNIQUES IN SECONDARY EDUCATION *5 credits (30 clinical hours, 20 field hours)*
Prerequisites: 5050:210, 211, 310, 311, 320, and 330. Corequisite: 5300:375. Open to student who has completed certification requirements in all content fields. Techniques of planning, instruction and evaluation in various secondary teaching fields.

316 METHODS IN TEACHING ART *3 credits*
Prerequisites: completion of required course for art teachers and grade-point average of 2.50 in the field. Study of trends and procedures in teaching and supervision; relation of art to home, school and community; observation in selected schools required.

317 INSTRUCTIONAL TECHNIQUES: MODERN LANGUAGES - SECONDARY *3 credits*
Prerequisites: 5050:210, 211, 310, 311, 320, and 330 and 5200: 321. Focus on theories of language acquisition, models of instruction for teaching foreign languages/cultures and strategies that promote levels of proficiency/competency for adolescent learners.

325 CONTENT READING IN SECONDARY SCHOOLS *3 credits (30 clinical hours)*
Instructional principles and practices for helping secondary school youth and adults learn subject matter through application of reading and study skills.

330 TEACHING ADOLESCENT/MIDDLE LEVEL LITERATURE *3 credits*
Prerequisite: Admission to the College of Education. Student develops skills for selection of literature that is well-suited for adolescent/middle level children. Student develops, uses, and experiences methods for teaching adolescent/middle level literature in the classroom.

374 PRINCIPLES OF SHORTHAND INSTRUCTION *2 credits*
Prerequisites: 2540:173 and grade-point average of 2.50 in the field. Methods of presentation in shorthand and transcription. Demonstration and observations required. Theory test in the field must be passed before credit given for course.

375 EXPLORATORY EXPERIENCE IN SECONDARY EDUCATION *1 credit (6 clinical hours, 30 field hours)*
Corequisite: 311. Field work with secondary school pupils, teachers and other school personnel.

395 FIELD EXPERIENCE *1-3 credits*
Prerequisite: upper-college standing. Supervised work with youngsters, individually and in groups in school and/or community settings.

430 SENIOR HONORS PROJECT: SECONDARY *1-6 credits*
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors Program and permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry.

435/535 CONCEPTS AND CURRICULUM DESIGNS IN ECONOMIC EDUCATION *3 credits*
Economic education concepts appropriate for grade levels K-12 and adult education courses. Economic education materials developed to teach the concepts utilized.

445/545 COMPUTER APPLICATIONS FOR SECONDARY TEACHERS *3 credits*
Prerequisite: senior status, 5050:311. Discuss strategies and rationale for effectively implementing computers and other technology in instruction.

475/575 VOCATIONAL BUSINESS EDUCATION *3 credits*
Prerequisite: senior status or permission. Principles of program construction, organization, implementation, evaluation, improvement, and development of program guides for both intensive and cooperative vocational business education.

480 SPECIAL TOPICS: SECONDARY EDUCATION *1-4 credits*
(May be repeated with a change in topic) Prerequisite: permission of instructor. Group study of special topics of critical, contemporary concern in professional education.

490,1,2,3/590,1,2,3 WORKSHOP *1-3 credits each*
Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units.

494/594 EDUCATIONAL INSTITUTES *1-4 credits*
Special courses designed as in-service upgrading programs, frequently provided with the support of national foundations.

495 STUDENT TEACHING *8-11 credits*
Prerequisites: Senior status and permission of instructor. Directed teaching under supervision of directing teacher and University supervisor.

496 STUDENT TEACHING COLLOQUIUM *1 credit*
Concurrent with Student Teaching; emphasis on applied decision making, group problem solving, and commitment to life-long learning.

TECHNICAL AND VOCATIONAL EDUCATION

5400:

301 OCCUPATIONAL EMPLOYMENT EXPERIENCE AND SEMINAR *1-4 credits*
Provides student with knowledge of current industrial or business practice at level minimally commensurate with that associated with employment expectations of graduates of technical programs.

351 CONSUMER HOMEMAKING METHODS *4 credits*
Prerequisites: senior standing, enrolled in student teaching. Organization of home economics in secondary schools. Emphasis on methodology, techniques, development of vocational concepts, utilization of audio-visual materials, evaluation procedures.

395 FIELD EXPERIENCE *1-3 credits*
Prerequisite: upper-college standing. Supervised work with youngsters, individually and in groups in educational institutions, training and/or community settings.

400/500 THE POSTSECONDARY LEARNER *3 credits*
Describes characteristics of the the postsecondary learner and studies issues, factors, and strategies pertinent to successful facilitation of learning in a variety of postsecondary occupational learning environments.

403 TECHNICAL EDUCATION PRACTICUM SEMINAR *3 credits*
Prerequisites: permission of advisor; 400, 405, or 415, 420, 430, and 435 with a 2.5 GPA or better. Micro teaching and portfolio development.

405/505 WORKPLACE EDUCATION FOR YOUTH AND ADULTS *3 credits*
History and operations of current vocational education for youth and adults. Includes study of social, economic and political influences that stimulate growth and expansion of vocational education.

415/515 TRAINING IN BUSINESS AND INDUSTRY *3 credits*
Examine the role and mission of the training function in the modern industrial setting. Foundation for students interested in industrial trainer or training supervision positions.

420 TECHNOLOGIES AND MEDIA FOR TECHNICAL INSTRUCTION *3 credits*
Experiences in using, developing, and evaluating instructional technologies and media used for technical instruction.

430/530 SYSTEMATIC CURRICULUM DESIGN FOR TECHNICAL INSTRUCTION *2 credits*
Prerequisite: 415 or 405 and 420, admission into program, or instructor permission. Determining the curriculum of their laboratory and classroom, and then sequencing the content.

435/535 INSTRUCTIONAL TECHNIQUES IN TECHNICAL EDUCATION *3 credits*
Prerequisites: 400. 405 or 415, 420, 430 or permission of instructor. Selected topics in instructional techniques appropriate in postsecondary technical education. Emphasis on instructional methods, techniques in classroom, laboratory including tests, measurements.

451/551 HOME ECONOMICS JOB TRAINING *3 credits*
Prerequisite: senior standing or permission of instructor. Concept development in vocational home economics. Job training, program development, operational procedures, skill and knowledge identification, training profiles, job description and analysis. Individualized study guides. In-school and on-the-job observations.

467 FIELD EXPERIENCE *3 credits*

480 SPECIAL TOPICS: VOCATIONAL EDUCATION *1-4 credits*
(May be repeated with a change in topic) Prerequisite: permission of instructor. Group study of special topics of critical, contemporary concern in professional education.

490,1,2/590,1,2 WORKSHOP *1-3 credits each*
Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units.

494/594 EDUCATIONAL INSTITUTES *1-4 credits*
Special courses designed as in-service upgrading programs, frequently provided with the support of national foundations.

495 TECHNICAL EDUCATION PRACTICUM *4 credits*
Prerequisites: 403 and permission of advisor and practicum supervisor; completion of all other technical education required courses with a 2.5 GPA or better. Directed teaching under supervision of directing teacher and University supervisor.

497 INDEPENDENT STUDY *1-3 credits*
Prerequisites: permission of adviser and supervisor of independent study. Area of study determined by student's need.

MIDDLE LEVEL EDUCATION

5500:

300 MIDDLE LEVEL EDUCATION *3 credits*
Prerequisite: 5050: 210, 211. This course will review nature/needs of early adolescents; developmentally appropriate middle schooling; philosophy of school organizations; curriculum, pedagogy, and assessment; cultural and community contexts.

350 INTEGRATING LANGUAGE ARTS AND MEDIA *3 credits*
This course provides preservice middle grade teaches with strategies for integrating the language arts in the areas of reading, writing, speaking, listening, media and drama.

351 MODES OF WRITING FOR THE MIDDLE GRADES *3 credits*
This course will provide middle school languages arts teachers the understandings and skills necessary to teach writing in varieties of forms and modes including newswriting.

PHYSICAL EDUCATION
5540:

120-83 PHYSICAL EDUCATION *0.5 credit each*
Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. One-half credit courses are offered one-half semester. Permission of coach necessary for enrollment in varsity sports(170-181).**

120	ARCHERY	145	SQUASH RACQUETS
121	BADMINTON	146	SWIMMING (beginning)
122	BASKETBALL	147	SWIMMING (intermediate)
123	BOWLING	148	SWIMMING (advanced)
124	CANOEING	149	TEAM HANDBALL
125	DIVING	150	TENNIS (beginning
126	FITNESS AND WELLNESS‡	151	VOLLEYBALL
127	GOLF	152	WATER POLO
128	GYMNASTICS (apparatus)	153	WATER SAFETY‡
129	GYMNASTICS (tumbling)	154	WRESTLING
130	HANDBALL	155	BASIC KAYAKING‡
131	INDOOR SOCCER	170	VARSITY BASEBALL
132	KARATE‡	171	VARSITY BASKETBALL
133	LIFEGUARD TRAINING‡‡	172	VARSITY CROSS COUNTRY
134	MODERN DANCE	173	VARSITY FOOTBALL
135	RACQUETBALL	174	VARSITY GOLF
136	RUGBY	175	VARSITY SOCCER
137	SAILING	176	VARSITY SOFTBALL
138	SCUBA‡	177	VARSITY SWIMMING
139	SELF DEFENSE‡	178	VARSITY TENNIS
140	SKIING (cross country)	179	VARSITY TRACK
141	SKIING (downhill)	180	VARSITY WRESTLING
142	SOCCER	181	VARSITY VOLLEYBALL
143	SOCIAL DANCE	182	VARSITY RIFLERY
144	SQUARE AND FOLK DANCE	183	VARSITY CHEERLEADING

190 SPECIAL TOPICS: GENERAL EDUCATION PHYSICAL EDUCATION *.5-2 credits*
Weight training, self defense for the blind, water safety instruction, beginning yoga, tai chi, billiards, intermediate and advanced bowling, intermediate and advanced golf, advanced self defense.

PHYSICAL EDUCATION
5550:

102 PHYSICAL EDUCATION ACTIVITIES I: FITNESS AND CONTEMPORARY ACTIVITIES *2 credits (30 clinical hours)*
Presentation of knowledge, fundamental skill development, and psychomotor skill analysis for the content areas of fitness and contemporary activities. One hour lecture, two hours lab.

130 PHYSICAL EDUCATION ACTIVITIES FOR CHILDREN *2 credits (30 clinical hours)*
For a physical education majors only. Participation in methods, activities and issues relating to pre-K through elementary physical education programs. One lecture and two laboratory periods per week.

150 CONCEPTS IN HEALTH AND FITNESS *3 credits*
Introduction to basic health and fitness concepts and related topics. Attention will be given to individual fitness programs emphasizing such topics as aerobic and anaerobic exercises, nutrition, diet, stress, and assessment methods and procedures.

193 ORIENTATION TO TEACHING PHYSICAL EDUCATION *3 credits (10 field hours, 22 clinical hours)*
Investigation of teaching elementary, middle school, secondary physical education. Teacher concerns such as lesson planning are considered. Observations done in school settings. Three hours lecture.

194 SPORTS OFFICIATING *2 credits (8 clinical hours)*
Knowledge of rules for interscholastic sports and officiating techniques. Successful completion of course permits taking of state examination for officiating. Two lectures and one laboratory per week.

195 CONCEPTS OF GAMES AND PLAY *2 credits (10 clinical hours)*
Concept analysis of games and play and application of these concepts to the teaching/learning process in physical education at all age levels.

201 KINESIOLOGY *3 credits (8 clinical hours)*
Prerequisites: 3100:206/207 or 3100:208/209. Application of basic principles of anatomy and mechanics to human movement. Three hours lecture with practical application and demonstrations.

** Varsity sports are one credit each.

‡ One credit each. Two periods each week.

‡‡ Two credits each.

202 DIAGNOSIS OF MOTOR SKILLS *3 credits (30 clinical hours)*
Prerequisite: 5550:201. This course introduces athletic trainers and physical education majors to the sciences of diagnosing motor skills.

203 MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION *3 credits (20 clinical hours)*
Statistical procedures needed for analysis and interpretation of tests. Evaluation procedures, testing instruments, and techniques for administering tests are discussed and practiced. Three hours lecture.

204 PHYSICAL EDUCATION ACTIVITIES II: SOCCER AND SWIMMING *2 credits (30 clinical hours)*
Course presents knowledge, fundamental skill development, and psychomotor skill analysis for the content areas of soccer and swimming. One hour lecture, two hours lab.

205 PHYSICAL EDUCATION ACTIVITIES III: BASKETBALL AND TRACK/FIELD *2 credits (30 clinical hours)*
Course presents knowledge, fundamental skill development, and psychomotor skill analysis relative to areas of basketball and track and field. One hour lecture, two hours lab.

211 FIRST AID AND CARDIOPULMONARY RESUSCITATION *2 credits (15 clinical hours)*
Based on American Red Cross standards for first aid and cardiopulmonary resuscitation. Instruction and skills practice for sudden illness/emergencies is provided. Two hours lecture.

235 CONCEPTS OF MOTOR LEARNING AND DEVELOPMENT *3 credits (10 field hours, 10 clinical hours)*
This course will introduce key motor learning concepts and analysis of developing fundamental motor skills. Three hours lecture.

240 CARE AND PREVENTION OF ATHLETIC INJURIES *3 credits (15 clinical hours)*
Prerequisites: 3100:206/207 or 3100:208/209. Discussion of prevention, immediate care and rehabilitation of common athletic injuries. Practical application of wrapping and taping procedures for injury prevention and post-injury support.

245 ADAPTED PHYSICAL EDUCATION *3 credits (30 clinical hours, 10 field hours)*
Identification of atypical movement among various exceptional individuals, with adapted physical education programming experience in a laboratory setting. Two hours lecture and two hours lab.

300 PHYSIOLOGY OF EXERCISE FOR THE ADULT AND ELDERLY* *2 credits*
Analysis of physiological effects of exercise on elderly. Exercise programs adaptable for use by persons working with elderly. Two hours lecture.

302 PHYSIOLOGY OF EXERCISE* *3 credits (30 clinical hours)*
Prerequisites: 3100:206/207 or 3100:208/209. A course designed to study the physiological effects of exercise relative to physical education activities, athletics and athletic training. Two hours lecture, two hours laboratory.

306 PHYSICAL EDUCATION ACTIVITIES IV* BADMINTON AND GOLF *2 credits (30 clinical hours)*
Course presents knowledge, fundamental skill development, and psychomotor skill analysis for the content areas of badminton and golf. One hour lecture, two hours lab.

307 PHYSICAL EDUCATION ACTIVITIES V* TENNIS AND VOLLEYBALL *2 credits (30 clinical hours)*
Course presents knowledge, fundamental skill development, and psychomotor skill analysis for the content areas of tennis and volleyball. One hour lecture, two hours lab.

308 PHYSICAL EDUCATION ACTIVITIES VI* DANCE AND TUMBLING *2 credits (30 clinical hours)*
Course presents knowledge, fundamental skill development, and psychomotor skill analysis for the content areas of dance and tumbling. One hour lecture, two hours lab.

310 THEORY AND TECHNIQUES OF SOCCER* *1 credit (20 clinical hours)*
Theory, techniques and organizational procedures for coaching of soccer. Two class periods per week.

311 THEORY AND TECHNIQUES OF TRACK AND FIELD* *1 credit (20 clinical hours)*
Theory, techniques and organizational procedures for coaching of track and field. Two class periods per week.

312 THEORY AND TECHNIQUES OF BASKETBALL* *1 credit (20 clinical hours)*
Theory, techniques and organizational procedures for coaching of basketball. Two class periods per week.

313 THEORY AND TECHNIQUES OF BASEBALL/SOFTBALL* *1 credit (20 clinical hours)*
Theory, techniques and organizational procedures for coaching of baseball and softball. Two class periods per week.

320 THEORY AND TECHNIQUES OF VOLLEYBALL* *1 credit (20 clinical hours)*
Theory, techniques and organizational procedures for coaching of volleyball. Two class periods per week.

325 THEORY AND TECHNIQUES OF FOOTBALL* *1 credit (20 clinical hours)*
Theory, techniques and organizational procedures for coaching of football. Two class periods per week.

334 GAMES AND RHYTHMS FOR ELEMENTARY* SCHOOL CHILDREN *3 credits (30 clinical hours, 5 field hours)*
Emphasis is on acquisition and development of fundamental motor skills, rhythmic movements, and physical fitness among elementary school children. Two hours lecture, two hours lab.

335 MOVEMENT EXPERIENCES FOR CHILDREN* *3 credits (20 clinical hours, 10 field hours)*
Prerequisites: 130, 193, 235. Course focuses on use of fundamental motor skill analysis to structure movement lessons for children from early childhood through elementary years. One hour lecture, two hours lab.

* Students must be in the College of Education to take 300/400 level courses.

336 MOTOR LEARNING AND DEVELOPMENT FOR EARLY CHILDHOOD* *2 credits (10 field hours)*
Physical fitness, fundamental motor skills, motor development and learning for early childhood, birth to age eight. Creating an environment of motor experiences for young children.

345 INSTRUCTIONAL TECHNIQUES FOR CHILDREN IN PHYSICAL EDUCATION* *3 credits (30 clinical hours)*
Prerequisites: 130 and 193. Microteaching experience with the purpose being to improve preservice instructional skills for effective teaching of multi-age physical education.

346 INSTRUCTIONAL TECHNIQUES IN SECONDARY PHYSICAL EDUCATION* *3 credits (30 clinical hours)*
Prerequisites: 102, 193 and 204/205. Presentation of various teaching styles/skills/behaviors for effective teaching of secondary physical education via microteaching. Two hours lecture, two hours lab.

350 PRINCIPLES IN COACHING *3 credits (10 clinical hours)*
This course introduces undergraduate students to basic coaching principles that apply to most sports and that are deemed important for the individual who seeks to become a successful coach. Ten clinical hours are required.

352 STRENGTH AND CONDITIONING FUNDAMENTALS* *3 credits*
Prerequisite: 302. This course will discuss scientific principles of physical conditioning. Application of physiological principles to the development of specific conditioning components will be analyzed.

395 FIELD EXPERIENCE* *1-3 credits (30-90 field hours)*
Prerequisite: permission of adviser. Practical experience in an area related to physical education under supervision of faculty member. Student works with current physical education programs in schools.

403 EXERCISE TESTING* *3 credits*
Prerequisite: 302. This course will cover basic knowledge of exercise testing and interpretation of results. Cardiovascular and muscular fitness aspects will be measured.

404 EXERCISE PRESCRIPTION* *3 credits*
Prerequisites: 302 and 403. This course focuses on how to appropriately prescribe exercise for various populations (young, middle-aged, elderly, pregnant, diseased-states).

409 HUMAN DYNAMICS OF SPORTS AND EXERCISE* *3 credits*
Prerequisite: 302. The focus of this course is the behavior of athletes and sport participants studied within the context of play, games, and sport.

420 SPORT MANAGEMENT* *3 credits*
Prerequisite: 302. This course seeks to explore, acquire, and discuss knowledge within the theoretical and applied management practices of sport, fitness, and instructional programs.

430 SENIOR HONORS PROJECT: PHYSICAL EDUCATION* *1-6 credits*
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors Program and permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry.

436/536 FOUNDATIONS AND ELEMENTS OF ADAPTED PHYSICAL EDUCATION* *3 credits*
Principles, components, and strategies necessary in providing motor activities for handicapped students via application of a neurodevelopmental model and alternate methods. Three hours lecture.

441/541 ADVANCED ATHLETIC INJURY MANAGEMENT* *4 credits (30 clinical hours)*
Prerequisites: 3100:206/207 or 3100:208/209, 5550:240, suggested sequence, 5550:201, 302. Advanced athletic training techniques for the student desiring to become a certified athletic trainer according to the regulations of the National Athletic Trainers Association.

442/542 THERAPEUTIC MODALITIES AND EQUIPMENT IN SPORTS MEDICINE* *3 credits (30 clinical hours)*
Prerequisites: 3100:206/207 or 3100:208/209, 5550:240. Purpose is to develop techniques and skills among sports medicine personnel in the selection and implementation of therapeutic modalities and the equipment used in the rehabilitation of injuries to athletes.

450 ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION, INTRAMURALS, AND ATHLETICS* *3 credits*
Investigation of procedures for conducting physical education, intramural, and athletic programs. Includes tournament designs, supplies and equipment, liability, curriculum, and general administration. Three hours lecture.

451/551 ASSESSMENT AND EVALUATION IN ADAPTED PHYSICAL EDUCATION* *3 credits (20 clinical hours)*
Prerequisites: permission of adviser. Investigation, analysis, and selection of appropriate assessment instruments, as well as methodology for determining instructional objectives and activities for handicapped students. Three hours lecture.

452 FOUNDATIONS OF PHYSICAL EDUCATION* *3 credits*
Overview of the emergence of physical education as a profession and the supporting role of underlying scholarly and scientific disciplines. Three hours lecture.

455/555 MOTOR DEVELOPMENT OF SPECIAL POPULATIONS* *3 credits*
Prerequisite: permission of adviser. Task analysis essential to structuring activity sequences for motor skills and lifetime fitness activities for handicapped students. Three hours lecture.

460 PRACTICUM IN PHYSICAL EDUCATION* *3-6 credits (90-180 field hours)*
Prerequisites: senior standing and permission of adviser. Practical work experience with certified personnel in a discipline or profession related to physical education. The experience will be a cooperative effort of the student's adviser, the student and agency personnel directly involved with the practicum.

462/562 LEGAL ASPECTS OF PHYSICAL ACTIVITY *2 credits*
This course will overview legal and ethical elements of greatest concern to specialists in sport and physical activity. Cases used to illustrate specific points. Topics vary.

475 SEMINAR IN HEALTH AND PHYSICAL EDUCATION* *3 credits (25 clinical hours)*
Provide the opportunity to develop mastery of problem-solving and presentation methods in health and physical education, with experiential learning.

* Students must be in the College of Education to take 300/400 level courses.

480 SPECIAL TOPICS: PHYSICAL EDUCATION* *1-4 credits*
(May be repeated with a change in topic) Prerequisite: permission of instructor. Group study of special topics of critical, contemporary concern in professional education.

490,1,2,3/590,1,2,3 WORKSHOP* *1-3 credits each*
Practical, intensive and concentrated involvement with current curricular practices in areas related to physical education.

493/593 EDUCATIONAL INSTITUTES: PHYSICAL EDUCATION* *1-4 credits*
Practical experience with current research or curricular practices involving expert resource persons in health and physical education. Usually financed by private or public funding.

494 STUDENT TEACHING COLLOQUIUM FOR PHYSICAL AND HEALTH EDUCATION* *2 credits (20 clinical hours)*
Prerequisites: Core courses, program studies courses; corequisite: Student Teaching, 495. Students meet during student teaching to discuss concerns about student teaching and analyze previous learning as it relates to their future as a professional educator.

495 STUDENT TEACHING FOR PHYSICAL AND HEALTH EDUCATION* *10 credits (480 field hours)*
Prerequisites: Core courses (2.50), program studies courses (2.50), 2.50 GPA; corequisite: 494. Supervised teaching experience in a school setting for sixteen weeks. Provided with opportunity to teach, to explore new methods and ideas, and to interact within an actual school environment.

497 INDEPENDENT STUDY* *1-2 credits (30-60 field hours)*
Prerequisite: permission of adviser. Analysis of specific topic related to a current problem in physical education. May include investigative procedures, research or concentrated practical experience.

OUTDOOR EDUCATION

5560:

206 ORIENTEERING *1 credit*
This course is designed to teach fundamental skills for traveling in the outdoors by map and compass, and to introduce the student to the sport of orienteering.

207 INTRODUCTION TO ROCK CLIMBING *1 credit*
This is a beginner level course designed to cover the basic knowledge and techniques of rock climbing.

208 BACKPACKING *1 credit*
This course is designed to teach the basic knowledge and techniques of backpacking travel in a temperate environment.

209 FLATWATER CANOE TRIPPING *1 credit*
Flatwater canoe tripping is an introduction to river and lake canoe camping.

430 SENIOR HONORS PROJECT: OUTDOOR EDUCATION *1-6 credits*
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors Program and permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry.

440 INTRODUCTION TO OUTDOOR PURSUITS *3 credits*
The purpose of this course is to introduce students to the varied but interrelated topics of Outdoor Pursuits, Adventure Education, Project Adventure, and New Games philosophy as they relate to Physical Education and Recreation programming.

450/550 APPLICATION OF OUTDOOR EDUCATION TO THE SCHOOL CURRICULUM *4 credits*
Provides knowledge, skills and techniques useful in application of outdoor education to school curriculum.

452/552 RESOURCES AND RESOURCE MANAGEMENT FOR TEACHING OUTDOOR EDUCATION *4 credits*
Methodologies unique to outdoor education which incorporate a multisensory approach to learning. Instructional materials and resources which permit expansion of curriculum beyond the school building.

454 RESIDENT OUTDOOR EDUCATION *2 credits (20 field hours)*
Skills, program considerations, and organizational techniques unique to an extended, overnight, resident outdoor education program. Off-campus location for four days and three nights.

456/556 OUTDOOR PURSUITS *4 credits*
Investigation and participation in practical experiences in outdoor pursuits.

458 ORGANIZATION AND ADMINISTRATION OF OUTDOOR PURSUITS *3 credits*
The purpose of this course is to provide the basic information necessary for the preparation of educators, leaders and administrators of outdoor programs.

460 OUTDOOR EDUCATION PRACTICUM *2 credits*
Prerequisites: 452, 454. Closely supervised practical experience in conjunction with regularly scheduled classroom meetings. Laboratory experience consists of active participation with an established outdoor education program.

462 ADVENTURE THERAPY *3 credits*
This course will discuss the interaction of experimental learning and adventure therapy. Application of adventure experiences therapeutic processes will be analyzed and explored.

464 WILDERNESS EDUCATION ASSOCIATION OUTDOOR LEADERSHIP *3 credits*
This is the Wilderness Education Association Standard Program for Outdoor Leadership Certification.

490/590 WORKSHOP: OUTDOOR EDUCATION *1-3 credits*
Practical application of contemporary ideas, methodologies, knowledge relevant to outdoor education. Emphasis on participant involvement in educational practices, utilizing the natural environment.

* Students must be in the College of Education to take 300/400 level courses.

494/594 EDUCATIONAL INSTITUTES: OUTDOOR EDUCATION *1-4 credits*
Practical experience with current research or curricular practices involving expert resource persons in outdoor education.

497 INDEPENDENT STUDY *1-3 credits (30-90 field hours)*
Prerequisites: permission of adviser and supervisor of independent study. Provides varied opportunities for a student to gain first-hand knowledge and experience with existing outdoor education programs.

HEALTH EDUCATION

5570:

101 PERSONAL HEALTH *2 credits (5 clinical hours)*
This course applies the current principles and facts pertaining to healthful, effective living, personal health problems, and needs of the student. Two hours lecture.

201 FOUNDATIONS IN HEALTH EDUCATION *3 credits (10 field hours, 20 clinical hours)*
Prerequisite: 101. History and philosophy of health education as a discipline; professionalism and administration in health education are considered.

202 STRESS, LIFE-STYLE AND YOUR HEALTH *3 credits (20 clinical hours)*
Prerequisites: 101; 201. This course will provide knowledge and attitudes about the relationship between stress and physiological and psychological illness and disease as well as how to prevent and manage stress in daily life activities.

320 COMMUNITY HEALTH* *2 credits (20 clinical hours)*
Study of current public health problems. Organization and administration of various agencies and their role in the solution of community health problems.

322 CURRENT TOPICS IN HEALTH EDUCATION* *3 credits (20 clinical hours)*
Prerequisites: 101, 201, 320. Skills needed to do research, teach, and present current health education topics in a factual and comfortable manner in schools and community. Three hours lecture.

323 METHODS AND MATERIALS OF HEALTH EDUCATION* *3 credits (10 field hours, 20 clinical hours)*
Prerequisites: 101, 201, 320, 5050:210/211, 5050:310/311. Planning, organization, use of instructional resources and delivery of health education content and teaching processes (pre K-12).

350 MEASUREMENT AND EVALUATION IN HEALTH EDUCATION* *3 credits (20 clinical hours)*
Prerequisites: 101, 201, 202, 320. Presentation of measurement inventories and evaluation techniques in health education. Testing instruments, administering tests and evaluation procedures are discussed and practiced. Three hours lecture.

395 FIELD EXPERIENCE IN HEALTH EDUCATION* *1-3 credits (30-90 field hours)*
Prerequisite: permission of the adviser. On-site field experience will be conducted in an area related to pre-K-12health education under the supervision of a faculty member.

400 ENVIRONMENTAL ASPECTS OF HEALTH* *3 credits (5 field hours, 20 clinical hours)*
Prerequisite: Major or minor in health education or instructor's permission. A study of the interrelationships of ecosystems and a healthful environment. This course investigates many aspects of the environment and their influences upon the quality of human life.

421/521 COMPREHENSIVE SCHOOL HEALTH *4 credits (20 clinical hours)*
Prerequisites: 101, 201, 320. This course explains and presents comprehensive school health curricula for pre-K-12. The three components of a comprehensive school health program are presented: instruction, services, and the environment.

430 SENIOR HONORS PROJECT: HEALTH EDUCATION* *1-6 credits*
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors Program and permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry.

460 PRACTICUM IN HEALTH EDUCATION* *2 credits (60 field hours)*
Prerequisite: permission of the adviser. The practicum in Health Education is an on-site participation in a community health organization, agency or resource.

497 INDEPENDENT STUDY IN HEALTH EDUCATION* *1-2 credits (30-60 field hours)*
Prerequisite: permission of the adviser. Analysis of a specific topic related to a current problem in health education. May include investigative procedure, research or concentrated practical experience.

EDUCATIONAL GUIDANCE AND COUNSELING

5600:

110 CAREER PLANNING *2 credits*
Skills necessary to make effective educational and career decisions. Emphasis upon self-understanding, career exploration, career planning, decision making.

410 PERSONNEL SERVICES IN SCHOOLS *2 credits*
Prerequisite: senior standing. Introduction to background, role and function, techniques, community agencies and issues in personnel field. For student considering pupil personnel fields, social work.

426/526 CAREER EDUCATION *2 credits*
Prerequisite: junior, senior or graduate standing. Examination of current career education models and programs with emphasis on infusion of career education activities into elementary and secondary curriculum.

436 HELPING SKILLS FOR RESIDENT ASSISTANTS *2 credits*
(Credit/noncredit) Prerequisite: open to resident assistants in University housing. A course designed to help student personnel workers become more effective in professional role.

450/550 COUNSELING PROBLEMS RELATED TO LIFE-THREATENING ILLNESS AND DEATH *3 credits*
Prerequisite: permission. Consideration of the global issues, current research, coping behavior, support systems and family and individual needs in regard to life-threatening situations.

480 SPECIAL TOPICS: EDUCATIONAL GUIDANCE AND COUNSELING *1-4 credits*
(May be repeated with a change in topic) Prerequisite: permission of instructor. Group study of special topics of critical, contemporary concern in professional education.

490,1,2/590,1,2 WORKSHOP *1-3 credits each*
Special instruction designed as in-service and/or upgrading individuals on current issues and practices in counseling.

493/593 WORKSHOP *1-4 credits*
Special instruction designed as in-service and/or upgrading individuals on current issues and practices in counseling.

494/594 COUNSELING INSTITUTE *1-4 credits*
In-service programs for counselors and other helping professionals.

SPECIAL EDUCATION

5610:

201 STUDENT PARTICIPATION: DEVELOPMENTALLY HANDICAPPED *1 credit (credit/noncredit)*
Prerequisites: sophomore standing and permission. Systematic observation and participation in classes for children with developmental handicaps.

202 STUDENT PARTICIPATION: SPECIFIC LEARNING DISABLED *1 credit (credit/noncredit)*
Prerequisites: sophomore standing and permission. Systematic observation and participation in classes for children with specific learning disabilities.

203 STUDENT PARTICIPATION: ORTHOPEDICALLY HANDICAPPED *1 credit (credit/noncredit)*
Prerequisites: sophomore standing and permission. Systematic observation and participation in classes for children with orthopedic handicaps.

204 STUDENT PARTICIPATION: SEVERE BEHAVIOR HANDICAPPED *1 credit (credit/noncredit)*
Prerequisites: sophomore status and permission. Systematic observation and participation in classes for children with severe behavior handicaps.

205 STUDENT PARTICIPATION: MULTIHANDICAPPED *1 credit (credit/noncredit)*
Prerequisites: sophomore status and permission. Systematic observation and participation in classes for children with multiple handicaps.

206 STUDENT PARTICIPATION: GIFTED *1 credit (credit/noncredit)*
Prerequisites: sophomore status and permission. Systematic observation and participation in classes for children who are gifted.

395 FIELD EXPERIENCE: SPECIAL EDUCATION *1-3 credits*
Prerequisite: upper-college standing. Supervised work with youngsters, individually and in groups in school and/or community settings.

403 STUDENT TEACHING COLLOQUIUM: SPECIAL EDUCATION *1 credit*
Prerequisite: senior status in conjunction with Student Teaching; and corequisites: 480, or 481, or 482, or 483, or 484 and 5050:401. An examination of problems, issues, and practices encountered during the student teaching experience.

430 SENIOR HONORS PROJECT: SPECIAL EDUCATION *1-6 credits*
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors Program and permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry.

440/540 DEVELOPMENTAL CHARACTERISTICS OF EXCEPTIONAL INDIVIDUALS *3 credits*
Prerequisite: Admission to a College of Education Preparation Program or permission of the instructor. A survey course covering the identification, developmental characteristics, and intervention strategies for exceptional children and youth across educational and community settings.

441/541 DEVELOPMENTAL CHARACTERISTICS OF THE MENTALLY RETARDED *4 credits*
Prerequisites: 440/540. A survey of the etiology, diagnoses, classification, and developmental characteristics of individuals with mental retardation and developmental disabilities. This course will include individuals classified at all levels of mental retardation: mild, moderate, severe, and profound.

443/543 DEVELOPMENTAL CHARACTERISTICS OF THE SPECIFIC LEARNING DISABLED *3 credits*
Prerequisite: 440/540. Survey of etiology, diagnosis, classification and developmental characteristics of learning disabled individuals.

445/545 DEVELOPMENTAL CHARACTERISTICS OF ORTHOPEDICALLY HANDICAPPED INDIVIDUALS *3 credits*
Prerequisite: 440/540. Etiology, diagnosis, classification, developmental characteristics of the orthopedically handicapped individuals.

* Students must be in the College of Education to take 300/400 level courses.

446/546 DEVELOPMENTAL CHARACTERISTICS OF THE SEVERE BEHAVIOR HANDICAPPED *3 credits*
Prerequisite: 440/540. Etiology, diagnosis, classification, developmental characteristics of the socially and emotionally maladjusted individuals.

447/547 DEVELOPMENTAL CHARACTERISTICS OF INDIVIDUALS WITH MILD/MODERATE EDUCATIONAL NEEDS *4 credits*
Survey of the etiology, identification, classification, developmental characteristics of and intervention strategies for individuals with mild/moderate educational needs.

448/548 DEVELOPMENTAL CHARACTERISTICS OF INDIVIDUALS WITH MODERATE/INTENSIVE EDUCATIONAL NEEDS *4 credits*
Prerequisites:7400:265 and 440/540. Survey of the etiology, diagnosis, classification and developmental characteristics of individuals with moderate/intensive educational needs.

450/550 SPECIAL EDUCATION PROGRAMMING: EARLY CHILDHOOD *3 credits*
Prerequisites: Admission to a College of Education Teacher Preparation Program and 440, 7400:265 or permission of the instructor. Developmental patterns of young children with disabilities and developmentally/exceptionality appropriate practices with respect to programming and adaptations.

451/551 SPECIAL EDUCATION PROGRAMMING: MILD/MODERATE I *3 credits*
Prerequisites: Admission to a Special Education Licensure Program and 440/540, 447/547, 5200:245, 345, 342 or permission of instructor. Educational implications regarding assessment, teaching strategies, and adaptive materials necessary to meet the needs of school age students with mild/moderate educational needs.

452/552 SPECIAL EDUCATION PROGRAMMING: SECONDARY/VOCATIONAL *3 credits*
Prerequisite: 440/540, and one of the following: 441/541, 443/543, 445/545, 446/546. Study of diagnostic prescriptive service delivery systems designed to accommodate developmental patterns of secondary-level exceptional individuals.

453/553 SPECIAL EDUCATION PROGRAMMING: MODERATE/INTENSIVE I *4 credits*
Prerequisites: 448/548. Development of the programming strategies including assessment, inter/transdisciplinary models, family involvement, IFSP/IEP/IP development, instructional practices based upon legal/ethical principles for individuals with moderate/intensive educational needs.

454/554 SPECIAL EDUCATION PROGRAMMING: MODERATE/INTENSIVE II *4 credits*
Prerequisites: 448/548, 453/553 and 463/563. Advanced program for providing educational planning and intervention for individuals with moderate to intensive educational needs. Focus is on developing a comprehensive educational program which will facilitate optimum functioning and independence.

456/556 SPECIAL EDUCATION PROGRAMMING: SEVERE BEHAVIOR HANDICAPPED *3 credits*
Prerequisites: 446/546. Students will develop teaching materials, assessment techniques, and IEPs for SBH individuals. Data evaluation and theoretical orientations will be stressed.

457/557 SPECIAL EDUCATION PROGRAMMING: MILD/MODERATE II *4 credits*
Special educational implications regarding assessment, teaching strategies, and adaptive materials necessary to meet the needs of school age students with mild/moderate educational needs.

459/559 COLLABORATION & CONSULTATION IN SCHOOLS AND COMMUNITY *3 credits*
Prerequisites: 440/540, 447/547, or 448/548 or permission from instructor. Provides professional educators/intervention specialists with skills in collaboration and consultation for working with parents of exceptional individuals and other professionals within school/community settings.

460/560 FAMILY DYNAMICS AND COMMUNICATION IN THE EDUCATIONAL PROCESS *3 credits*
A study of family theory and structure along with beginning techniques for working with families of students with exceptionalities, in educational and community settings.

461/561 TECHNOLOGY AND MATERIALS APPLICATION IN SPECIAL EDUCATION *3 credits*
Prerequisite: 5050:311 or permission of instructor. Microcomputer operation and programming in special education; operation and use of unique audio or visual tools for handicapped and/or adaptive use of traditional equipment; overview of curriculum materials designed for exceptional learner.

462/562 EDUCATING EXCEPTIONAL CHILDREN IN THE REGULAR CLASSROOM *3 credits*
For non-special education majors, teaching and administrative personnel in the field. This course focuses on the skills and competencies needed (by regular educators) in working successfully with mainstreamed exceptional children.

463/563 ASSESSMENT IN SPECIAL EDUCATION *3 credits*
Prerequisite: 440/540, 5050:310. Prepares student to select, administer and interpret formal and informal assessment procedures and use resulting data in planning educational programs for exceptional individuals.

465/565 NEUROMOTOR ASPECTS OF PHYSICAL DISABILITIES *3 credits*
Prerequisites: 3100:206, or 207, or 208, or 209; 5610:440/540. Provides the student with a basic knowledge of the human neuromuscular system and the impact of neuromuscular damage on the form and function of movement and behavior.

467/567 MANAGEMENT STRATEGIES IN SPECIAL EDUCATION *3 credits*
Prerequisites: 5050:210; 5050:211; 5050:320; 5050:330; 5610:440 and one of the following: 5610:441, 443, 445, or 446. Content emphasizing the development of application strategies with a variety of behavior management models for meditation of behaviors with exceptional individuals.

470/570 CLINICAL PRACTICUM IN SPECIAL EDUCATION *3 credits*
Prerequisite: Permission of instructor. Corequisites: 403 and 486 or487. Provides a pre-student teaching experience for students in the areas of assessment, program planning, instructional planning and presentation, classroom management, adaptations, and collaboration with parents and other educational professionals.

479/579 SEMINAR: INVITATIONAL STUDIES IN SPECIAL EDUCATION *1-2 credits*
(May be repeated for a total of four credits) Topical study with a varied array of disciplinary input. Staffing will be invited members of allied and contributing professions active in manage ment of exceptional children.

480 STUDENT TEACHING: DEVELOPMENTALLY HANDICAPPED *12 credits*
Prerequisites: Senior status, completion of program requirements, and permission; corequisites: 403 and 5050:410. Two full-time, eight-week supervised teaching experiences in special education classes at the elementary and secondary levels.

481 STUDENT TEACHING: SPECIFIC LEARNING DISABLED *12 credits*
Prerequisites: Senior status, completion of program requirements, and permission; corequisites: 403 and 5050:410. Two full-time, eight-week supervised teaching experiences in special education classes at the elementary and secondary levels.

482 STUDENT TEACHING: ORTHOPEDICALLY HANDICAPPED *12 credits*
Prerequisites: Senior status, completion of program requirements, and permission, corequisites: 403 and 5050:410. Two full-time, eight-week supervised teaching experiences in special education classes at the elementary and secondary levels.

483 STUDENT TEACHING: SEVERE BEHAVIOR HANDICAPPED *12 credits*
Prerequisites: Senior status, completion of program requirements, and permission, corequisites: 403 and 5050:410. Two full-time, eight-week supervised teaching experiences in special education classes at the elementary and secondary levels.

484 STUDENT TEACHING: MULTIHANDICAPPED *12 credits*
Prerequisites: Senior status, completion of program requirements, and permission, corequisites: 403 and 5050:410. Two full-time, eight-week supervised teaching experiences in special education classes at the elementary and secondary levels.

485 STUDENT TEACHING SPECIAL EDUCATION *8 credits*
Prerequisite: Completion of major program requirements permission. A full-time 8 week(Summer 5 week) planned teaching experience in a designated setting with exceptional children under the supervision of the cooperating teacher and the University supervisor.

486 STUDENT TEACHING: MILD/MODERATE EDUCATIONAL NEEDS *8 credits*
Two full-time, five week supervised teaching experiences in the role of Intervention Specialist for Students with Mild/Moderate Educational Needs at the elementary and secondary levels.

487 STUDENT TEACHING: MODERATE/INTENSIVE EDUCATIONAL NEEDS *8 credits*
Prerequisites: Senior status, completion of major program requirements and permission. Corequisites: 403 and 470. Two full-time, five week supervised teaching experiences in the role of Intervention Specialist for students with moderate/intensive educational needs at the elementary and secondary levels.

490,1,2,3/590,1,2,3 WORKSHOP *1-3 credits each*
(May be repeated for a total of six credits) Designed to explore special topics in in-service or pre-service education on a needs basis.

494/594 EDUCATION INSTITUTES: SPECIAL EDUCATION *1-4 credits*
Special courses designed as in-service upgrading programs, frequently provided with the support of national foundations.

497 INDEPENDENT STUDY: SPECIAL EDUCATION *1-3 credits*
Prerequisites: permission of adviser and supervisor of the independent study. Specific area of investigation determined in accordance with student's needs.

SCHOOL PSYCHOLOGY 5620:

490/590 WORKSHOP *1-2 credits*
Prerequisite: permission of instructor. Opportune topical experience provided periodically as needed and/or as resources become available.

491,2/591,2 WORKSHOP *1-3 credits each*
Prerequisite: permission of instructor. Opportune topical experience provided periodically as needed and/or as resources become available.

494/594 SCHOOL PSYCHOLOGY INSTITUTES *1-4 credits*
Prerequisite: permission of instructor. Specifically designed learning experience for program graduate focusing on critical topics.

MULTICULTURAL EDUCATION 5630:

480 SPECIAL TOPICS: MULTICULTURAL EDUCATION *1-4 credits*
(May be repeated with a change in topic) Prerequisite: permission of instructor. Group study of special topics of critical, contemporary concern in professional education.

481/581 MULTICULTURAL EDUCATION IN UNITED STATES *3 credits*
Inquiry into multicultural dimensions of American education. Comparisons of urban, suburban and rural educational settings with reference to socioeconomic differences.

482/582 CHARACTERISTICS OF CULTURALLY DIVERSE POPULATIONS *3 credits*
Study of characteristics of culturally different youth with focus on youth in low-income areas. Emphasis on cultural, social, economic and educational considerations and their implications.

483/583 PREPARATION FOR TEACHING CULTURALLY DIVERSE POPULATIONS *3 credits*
Designed to help prepare trainees to teach culturally different youth from low-income back grounds. Through use of multimedia source materials, trainees gain knowledge of background and culture of culturally different learners, determine role of teacher, explore techniques of discipline and classroom management, survey motivational and instructional techniques and examine, prepare and adapt variety of instructional materials for individual, small group and large group instruction.

484/584 PRINCIPLES OF BILINGUAL/MULTICULTURAL EDUCATION *3 credits*
An introduction to the theoretic, cultural, sociolinguistic bases of bilingual/multicultural education. Legislation, court decisions, program implementation included.

485 TEACHING READING & LANGUAGE ARTS TO SECOND LANGUAGE LEARNERS *4 credits*
Prerequisite: Admission to the College of Education. Course applies methodologies for teaching reading, language arts in the bilingual/multicultrual classroom. The bilingual student's native language, culture stresses.

486/586 TEACHING MATHEMATICS, SOCIAL STUDIES AND SCIENCE TO BILINGUAL STUDENTS *3 credits*
Prerequisites: elementary education majors, 5200:333, 336, 338; for secondary education majors, 5300:311 (science, social studies or mathematics). Course applies methodologies for teaching mathematics, science, social studies in the bilingual/multicultural classroom. The bilingual student's native language stressed.

487/587 TECHNIQUES FOR TEACHING ENGLISH AS A SECOND LANGUAGE IN THE BILINGUAL CLASSROOM *4 credits*
Prerequisite: permission of instructor. Course includes teaching language skills to Limited English Proficient students in grades K-12, administration of language assessment tests, selection and evaluation of materials.

490/590 WORKSHOP: BILINGUAL/MULTICULTURAL *1-3 credits*
Emphasizes development of teaching devices and/or curriculum units, demonstration of teaching techniques

EDUCATIONAL FOUNDATIONS AND LEADERSHIP

5700:

480 SPECIAL TOPICS: EDUCATIONAL ADMINISTRATION *1-4 credits*
(May be repeated with a change in topic) Prerequisite: permission of instructor. Group study of special topics of critical, contemporary concern in professional education.

490,1,2,3/590,1,2,3 WORKSHOP *1-3 credits each*
Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units.

494/594 EDUCATIONAL INSTITUTES *1-4 credits*
Special courses designed as in-service upgrading programs, frequently provided with the support of national foundations.

SPECIAL EDUCATIONAL PROGRAMS

5800:

490/590 WORKSHOP IN ECONOMIC EDUCATION OR IN SOCIAL STUDIES *1-3 credits*
Individual work under staff guidance on curriculum problems; utilization of community resources; planning of curriculum units.

491/591 WORKSHOP IN ARITHMETIC OR IN PHYSICAL SCIENCE *1-3 credits*
Individual work under staff guidance on curriculum problems; utilization of community resources; planning of curriculum units.

492/592 WORKSHOP IN READING *1-3 credits*
Individual work under staff guidance on curriculum problems; utilization of community resources; planning of curriculum units.

493/593 WORKSHOP ON EXCEPTIONAL CHILDREN *1-3 credits*
Individual work under staff guidance on curriculum problems; utilization of community resources; planning of curriculum units.

494/594 INTERNATIONAL SCHOOL STUDY *3-6 credits*
On-the-scene study of education in foreign countries, usually by concentrating on the study of schools in one restricted geographical area.

EDUCATIONAL TECHNOLOGY

5850:

100 INTRODUCTION: PUPIL PERSONNEL WORK *2 credits*
Purposes, needs, scope, character of pupil personnel services.

201 INFORMATIONAL SERVICES IN GUIDANCE AND SPECIAL EDUCATION *2 credits*
Emphasis on organization and status of informational services as related to activities of educational technologist.

204 HUMAN RELATIONS IN EDUCATION *3 credits*
Study of individual and group relationships in educational setting including development of basic interpersonal skills.

207 MECHANICS OF STUDENT APPRAISAL *3 credits*
Introduction to group appraisal with major emphasis on assisting certified personnel in group test administration, scoring, organizing and recording test results.

213 ORIENTATION OF THE EDUCATIONAL TECHNICIANS TO THE SECONDARY SCHOOL *2 credits*
Designed to provide student preparing for role of educational technician with framework for understanding secondary education.

260 SPECIAL EDUCATION TECHNOLOGY *2 credits*
Survey of selected procedures and materials employed in classrooms especially designed and operated for exceptional children.

295 EDUCATION TECHNICIAN FIELD EXPERIENCE *5 credits*
(May be repeated once) Supervised field experience in school setting designed for educational technician enrollees only.

College of Business Administration

COOPERATIVE EDUCATION

6000:

301 COOPERATIVE EDUCATION *0 credits*
(May be repeated) For cooperative education students only. Work experience in business, industry, or governmental agency. Comprehensive performance evaluation and written report required.

GENERAL BUSINESS

6100:

101 GLOBAL BUSINESS CONCEPTS AND PRACTICES *3 credits*
An introductory course presenting the business firm throughout the world as an integrative unit that uses information from various functional fields in decision-making.

FINANCE FOR NON-BUSINESS STUDENTS

6140:

331 PERSONAL FINANCE *3 credits*
(For non-College of Business Administration students.) A survey analysis of personal financial decisions related to budgeting, insurance, credit, and investments.

341 CONTEMPORARY INVESTMENTS *3 credits*
(For non-College of Business Administration students.) Fundamentals of investing in stocks, bonds, derivatives, mutual funds, and closed-end investment companies for the individual investor.

370 INTRODUCTION TO FINANCE *3 credits*
(For non-College of Business Administration students.) Studies the sources and uses of funds for business.

ACCOUNTANCY

6200:

200 PROFESSIONAL ORIENTATION *1 credit*
Provides an overview of the field of accounting and examines the professional skills and personal attributes required for a successful career in accounting.

201 ACCOUNTING CONCEPTS AND PRINCIPLES FOR BUSINESS *3 credits*
Prerequisite: 24 hours of college credit. Introduction to accounting concepts and terminology. Accounting for assets, liabilities, and proprietorship. Analysis of cash flow and financial statements.

202 MANAGERIAL ACCOUNTING *3 credits*
Prerequisite: 201. Information needs of management. Study of product costing systems; standard costs; planning, budgeting, and control systems; responsibility accounting; activity-based costing and activity-based management; cost-volume profit analysis; relevant costing; and capital budgeting.

250 COMPUTER APPLICATIONS FOR BUSINESS *3 credits*
Prerequisite: Computer proficiency. Introduces analysis and design of information systems. Provides hands-on experience with microcomputer applications such as spreadsheets, graphics and data-base management using integrated spreadsheet software. For non-Accounting majors only.

255 INFORMATION PROCESSING *3 credits*
Prerequisite: 201 and 32 credits of completed and current enrollment. Introduction to automatic data processing systems in an accounting and management environment. Fundamentals of computer programming presented to student. For Accounting majors only.

301 COST ACCOUNTING *3 credits*
Prerequisites: 3250:200, and grades of not less than "C" in 201, 202. Introduction to product costing, emphasizing analysis of materials, labor and factory overhead. Cost control achieved through use of flexible budgets, standard costs and variance analysis.

320 ACCOUNTING CYCLES AND FINANCIAL STATEMENTS *3 credits*
Prerequisites: Grade of not less than "C" in 6200:201. Study of the accounting process and financial statements, accounting for errors, accounting changes and cash flows.

321 INTERMEDIATE ACCOUNTING I *3 credits*
Prerequisite: 320 and satisfactory performance on an accounting admissions test approved by the School of Accountancy. Accounting for cash, receivables, inventories, property, plant and equipment, investments, liabilities and leases.

322 INTERMEDIATE ACCOUNTING II *3 credits*
Prerequisite: 320 and satisfactory performance on an accounting admissions test approved by the School of Accountancy. Accounting for owners equity, revenue recognition, tax allocation, pensions, accounting changes, cash flows and financial statement analysis.

360 BUDGETING *3 credits*
Prerequisite: 301. Study of principles and policies of budgeting. Emphasis on managerial control of expenses, capital expenditures and related activities.

401 ACCOUNTING SURVEY *3 credits*
Prerequisite: permission of instructor. Introductory course for student with no previous accounting background. Essential accounting concepts, techniques and terminology for business organizations.

402 ADVANCED COST ACCOUNTING *3 credits*
Prerequisite: 301. Study of use of standard cost procedures, job-order costing procedures and advanced problems in area of cost accounting.

408 INTERNATIONAL FINANCIAL REPORTING AND ANALYSIS *3 credits*
Prerequisites: 201, 202 and 6400:371 or equivalent. Understanding international accounting standards, preparing and analyzing foreign financial statements, international tax issues, accounting for foreign currency transactions, understanding transfer pricing and international auditing.

410 TAXATION FOR FINANCIAL PLANNING *3 credits*
Provides students preparing for careers in financial planning with the necessary knowledge of federal tax law as applied to individuals and businesses. Not open to accounting majors.

420/520 ADVANCED ACCOUNTING *3 credits*
Prerequisite: 321 and 322. Examination of accounting theory emphasizing accounting for business combinations, partnerships, foreign operations, nonprofit entities and consolidated statements.

425 CURRENT DEVELOPMENTS IN ACCOUNTING *3 credits*
Prerequisite: 322. Official pronouncements of Accounting Principles Board, Financial Accounting Standards Board and Securities and Exchange Commission, and other current developments in accounting theory.

430/530 TAXATION I *3 credits*
Prerequisite: 320 or 621. Federal tax law related to individuals. Master of Taxation students will not be able to take this course to satisfy tax electives in the Master of Taxation program.

431/531 TAXATION II *3 credits*
Prerequisite: 430/530 or permission. Federal income tax law related to partnerships, corporations, trusts and estates; also includes an overview of federal estate and gift tax law.

440/540 AUDITING *3 credits*
Prerequisites: 255; 321, 322; and 430, 454 and 6500:221 must be taken prior to or concurrently. Examines auditing standards and procedures used by independent auditor in determining whether a firm has fairly represented its financial position.

454 INFORMATION SYSTEMS *3 credits*
Prerequisites: 202 and 255. Focus on development of accounting methods and procedures, installation and improvement of accounting systems and evaluation of automated data processing systems. This course cannot be taken in lieu of 6500:325 Analysis and Design of Information Systems.

460 ADVANCED MANAGERIAL ACCOUNTING *3 credits*
Prerequisites: 301; 6400:371; and 6500:330. The use of financial and non-financial information in decision making in both public and private sectors. Problem solving approach is emphasized.

470/570 GOVERNMENTAL AND INSTITUTIONAL ACCOUNTING *3 credits*
Prerequisites: 320 or 601. Theory and procedures involved in application of fund accounting, budgetary control, appropriations and various accounting systems to governmental units, educational, medical and other nonprofit institutions.

480/580 ACCOUNTING PROBLEMS *3 credits*
Prerequisite: 322. Independent research on advanced accounting problem in student's specific area of interest.

485 CPA PROBLEMS: COMMERCIAL LAW *3 credits*
Prerequisite: permission of instructor. Legal aspects of government regulation of business; applications of uniform commercial code in sales, commercial paper and secured transactions; wills, estates, trusts, bailments, suretyship, bankruptcy.

486 CPA PROBLEMS: ACCOUNTING PRACTICE *3 credits*
Prerequisite: permission of instructor. Study of methods for solving various types of problems which appear on accounting practice section of CPA examination.

487 CPA PROBLEMS: TAXATION *1 credit*
Prerequisite: permission of instructor. Application of current developments in federal income tax law to CPA examination.

486/588 CPA PROBLEMS: AUDITING *2 credits*
Prerequisite: 440/540 or permission of instructor. Preparation for auditing section of CPA examination, focusing on auditing principles, standards and ethics and situations encountered by independent auditor.

489/589 CPA PROBLEMS: THEORY *2 credits*
Prerequisite: permission of instructor. Preparation for theory section of CPA examination, focusing on current developments and use of basic accounting theory to solve advanced accounting problems.

490/590 SPECIAL TOPICS IN ACCOUNTING *1-3 credits*
Prerequisite: Permission of instructor. Opportunity to study special topics and current issues in accounting. May be repeated with a change of subject.

491/591 WORKSHOP IN ACCOUNTING *1-3 credits*
(May be repeated) Prerequisite: permission of instructor. Group study of accounting under faculty guidance. May not be used to meet undergraduate or graduate accounting major requirements, but may be used for elective credit only with permission of instructor or department.

496 INTERNSHIP IN ACCOUNTING *3 credits (credit/non-credit)*
Prerequisite: permission of instructor. On-the-job training for student in field of public, industrial or nonprofit accounting. Individual assignments made by supervising faculty member.

497 HONORS PROJECT *1-3 credits*
(May be repeated for a total of six credits) Prerequisite: senior standing in Honors Program. Individual senior honors thesis or creative project relevant to accounting approved and supervised by member of the department faculty.

499 INDEPENDENT STUDY IN ACCOUNTING *1-3 credits*
Prerequisite: permission.

ENTREPRENEURSHIP

6300:

201 INTRODUCTION TO ENTREPRENEURSHIP *3 credits*
An introduction to the entrepreneurial principles of starting, managing and marketing a new business. Open to all university students.

301 ENTREPRENEURIAL MANAGEMENT AND OPERATIONS *3 credits*
Prerequisite: 201. Study of management functions for students not majoring in business but interested in business ownership. Emphasis placed upon entrepreneurial behavior, employee issues, and operations.

303 ENTREPRENEURIAL MANAGEMENT ISSUES *1 credit*
Prerequisites: 201 and 6500:301, 330. Study of issues uniquely related to management of new and entrepreneurial ventures for students majoring in business and interested in business ownership.

330 ENTREPRENEURIAL ISSUES IN ACCOUNTING AND FINANCE *3 credits*
Prerequisite: 201. Exploration of the accounting, financing, taxation, and insurance issues surrounding entrepreneurial decision-making for students interested in business ownership.

360 ENTREPRENEURIAL FIELD PROJECT *3 credits*
Prerequisites: 301 or 303, and 330; or permission of the instructor. A practical field experience where students work in a consulting role on an actual entrepreneurial project involving a small business development center, a small business incubator, or an existing small business.

370 ENTREPRENEURIAL PRINCIPLES AND PRACTICE *3 credits*
An introduction for students to the power of the free market, the theory of entrepreneurship and its importance to a free society and the economy through case study, field experience and other pedagogical tools.

450 ENTREPRENEURIAL STRATEGIC PLANNING *3 credits*
Prerequisites: 301 or 303, and 330. A capstone integrative course focusing upon identification of venture opportunities. Students will develop, present, and defend a business plan for a proposed venture.

490 ENTREPRENEURIAL SPECIAL TOPICS *1-3 credits*
Prerequisite: 201. Provides opportunity for study of special topics not covered in other entrepreneurial courses. Separate topics may be repeated for a maximum of six credits.

499 INDEPENDENT STUDY IN ENTREPRENEURSHIP *1-3 credits*
Prerequisite: 201. Provides a means for individual study in entrepreneurship from which students can derive significant benefit.

FINANCE

6400:

220 THE LEGAL AND SOCIAL ENVIRONMENT OF BUSINESS *3 credits*
Explores the legal and social environment in which modern business must function. The legal system, public and private law, and contemporary social and ethical issues are addressed.

290 CAREER PLANNING AND ANALYSIS *1 credit*
Analysis of career opportunities in finance, business and government. Includes career planning, resume preparation, review of University services, and job search techniques.

321 BUSINESS LAW I *3 credits*
Discussions designed to develop legal reasoning within substantive areas of contractual obligation, agency relationships, partnerships, corporations, accountant's legal responsibility, federal securities regulation and antitrust law.

322 BUSINESS LAW II *3 credits*
Applications of Uniform Commercial Code in sales, commercial paper and secured transactions. Additional discussions include property, wills, estates, trusts, bailments, insurance, suretyship, bankruptcy, and labor law.

323 INTERNATIONAL BUSINESS LAW *3 credits*
The law and international commercial transactions. Among the subjects covered are sovereignty; treaties; agreements; antitrust practices; property rights; international arbitration.

325 BUSINESS AND SOCIETY *3 credits*
Conceptual course considers financial, economic, legal and sociopolitical implications of business in society. Issues related to economic and legal framework for business decisions.

332 PERSONAL FINANCIAL PLANNING *3 credits*
Prerequisite: 371; 6200:250 or 255; or permission of instructor. Capstone financial services course emphasizing theory and case study applications of the comprehensive personal and professional planning process.

338 FINANCIAL MARKETS AND INSTITUTIONS *3 credits*
Prerequisite: 371 or 6140:370 or permission of instructor.. Studies the flows of funds. Analyzes major financial intermediaries. Money and capital markets reviewed with emphasis on interest rates and their impact upon administration of specific financial intermediaries.

343 INVESTMENTS *3 credits*
Prerequisites: 6500:221; 371 or 6140:370; or permission of instructor. Range of security investment media explored, alternative investment programs considered and role of securities markets through which goals can be achieved studied.

371 BUSINESS FINANCE *3 credits*
Prerequisites: 3250:200; 3450:141 or 3450:289A or 3450:145; and 6200: 201. An overview of the financial system and the major decision areas of the financial manager such as capital budgeting, financing, and working capital management.

379 ADVANCED BUSINESS FINANCE *3 credits*
Prerequisite: 371; 6200:250 or 255; 6500:222; or permission of instructor. Theory and application of capital budgeting, capital structure, leasing, working capital management, and dividend policy within the financial information system.

390 REAL ESTATE PRINCIPLES: A VALUE APPROACH *3 credits*
A study of real estate: the profession, the process, and the product. Emphasis is on real estate as a product and the valuation process. The measurement of value requires tool abilities in accounting, statistics and finance.

401 REAL ESTATE INVESTMENT *3 credits*
Prerequisites: 371 or 6140:370 or permission of instructor. Advanced course in real estate investment which covers investing in all types of real estate including single-family mortgages and creative investment techniques for income properties.

402 INCOME PROPERTY APPRAISAL *3 credits*
Prerequisites: 371 or 6140:370 or permission of instructor. Advanced course in real property appraisal and valuation. Techniques and concepts will be covered along with the theory underlying such techniques.

403 REAL ESTATE FINANCE *3 credits*
Prerequisites: 371 or 6140:370 or permission of instructor. Advanced course in real estate covering the financing of real property. Included are methods, institutions, instruments, valuation, appraisal and policy in real estate finance.

413 PROPERTY AND LIABILITY INSURANCE *3 credits*
Prerequisite: 371 or 6140:370; or permission of instructor. A study of property and casualty insurance contracts, insurance companies, industry regulation.

414 LIFE AND HEALTH INSURANCE *3 credits*
Prerequisite: 371 or 6140:370; or permission of instructor. Detailed study of life and health insurance contracts, insurance companies, industry regulations.

415 RISK MANAGEMENT AND INSURANCE *3 credits*
Prerequisite: 371 or 6140:370; or permission of instructor. Concept of risk and risk management and principles of insurance are developed in business. Life and health insurance related to employee benefit problems.

424 LEGAL CONCEPTS OF REAL ESTATE *3 credits*
Study of concepts of law governing the many interests in real estate including acquisition, encumbrance, transfer, rights and obligations of parties, and the various state and federal regulations. The legal concepts of the business of real estate are likewise examined. Emphasis is on a managerial approach utilizing the case method.

436 COMMERCIAL BANK MANAGEMENT *3 credits*
Prerequisite: 371 or 6140:370; 6200: 250 or 255; or permission of instructor. Study of administrative policy determination and decision making within the commercial bank. Analyses of policy making in areas of liquidity, loan and security investment and sources of funds.

447 SECURITY AND PORTFOLIO ANALYSIS *3 credits*
Prerequisite: 343; and 6200:250 or 255; or permission of instructor. Application of quantitative and qualitative techniques of analysis to fixed income and equity securities, and their composition weights in portfolios during different time periods.

473 FINANCIAL STATEMENT ANALYSIS *3 credits*
Prerequisites: 371; 6200:250 or 255; or permission of instructor. Analysis and interpretation of the financial position and performance of the business firm from the perspective of the credit and financial analyst. Emphasizes mechanics and art of financial analysis.

475 COMMERCIAL AND CONSUMER CREDIT MANAGEMENT *3 credits*
Prerequisite: 371; 6200:250 or 255; or permission of instructor. An examination of the role of credit; the application, investigation, authorization, collection and legal processes principally from the point of view of the business manager.

481 INTERNATIONAL BUSINESS FINANCE *3 credits*
Prerequisite: 371 or permission of instructor. Theory and practice of financial wealth maximization in the international business enterprise.

485 FINANCIAL STRATEGY *3 credits*
Prerequisite: senior standing; 379; or permission of instructor. Capstone course with applications of financial management theories and tools to decisions in capital budgeting, capital structure, and working capital management.

490 SELECTED TOPICS IN FINANCE *1-3 credits*
Prerequisite: 371; 6200:250 or 255. Provides opportunity for study of special topics not covered in current finance courses.

491/591 WORKSHOP IN FINANCE *1-3 credits*
(May be repeated) Group studies of special topics. May not be used to meet undergraduate or graduate major requirements in finance. May be used for elective credit only with permission of instructor or department.

495 INTERNSHIP IN FINANCE *1-3 credits*
Prerequisite: 6400:371, and 6200:250 or 255. On-the-job experience with cooperating private and public sector organizations. Individual assignments made by supervising faculty member. Periodic reports and term papers required as appropriate.

497 HONORS PROJECT *1-3 credits*
(May be repeated for a total of six credits) Prerequisite: senior standing in Honors Program. Individual senior honors thesis or creative project relevant to finance approved and supervised by member of the department faculty.

499 INDEPENDENT STUDY: FINANCE *1-3 credits*
Prerequisite: permission of department head. Provides means for individualized in-depth study of finance problem or problems from which student can derive significant benefit.

MANAGEMENT
6500:

200 CAREER ORIENTATION: MANAGEMENT *1 credit*
Reviews the academic requirements for management majors, examines professional skills and personal characteristics required for success, and requires the development of an academic/career plan.

221 QUANTITATIVE BUSINESS ANALYSIS I *3 credits*
Prerequisite: 3450:145 or 3450:289 or 3450:141. Math diagnostic test and review, probability; descriptive statistics; sampling distributions; interval estimations; introduction to hypothesis testing and p-values. Case analysis with written and oral team reports will be used.

222 QUANTITATIVE BUSINESS ANALYSIS II *3 credits*
Prerequisite: 221. Continuation of hypothesis testing; ANOVA; simple and multiple linear regression; one- and two-sample nonparametric procedures; chi-square tests of goodness of fit and association; multi-sample nonparametric procedures. Cases and team projects will be used.

301 MANAGEMENT: PRINCIPLES AND CONCEPTS *3 credits*
Prerequisites: Three credits in behavioral science, economics, mathematics. An interdisciplinary approach to the study of the basic principles of general management theory and practice.

302 INTRODUCTION TO ORGANIZATIONAL BEHAVIOR *3 credits*
Prerequisites: 301 and two courses in psychology, sociology. Investigation of applications of behavioral and social sciences as they relate to individual, group behavior in organizations.

310 BUSINESS INFORMATION SYSTEMS *3 credits*
Prerequisites: 6200:250 or 255 or equivalent. Provides a technical and organizational foundation for understanding the use and importance of information systems and information technology in today's business environment.

324 DATA MANAGEMENT FOR INFORMATION SYSTEMS *3 credits*
Prerequisites: upper-college standing and 310. Developing business application systems using database management systems software, including sequential and random files, finding and arranging records, and database management systems applications.

325 ANALYSIS AND DESIGN OF INFORMATION SYSTEMS *3 credits*
Prerequisite: 310. In-depth coverage of the analysis, design, implementation and maintenance of computer-based information systems. (Cannot be taken in lieu of 6200:454.)

330 PRINCIPLES OF OPERATIONS MANAGEMENT *3 credits*
Prerequisites: 301 and 221 or equivalent. An overview of the terminology, fundamental concepts and functional scope of responsibility encountered in the field of operations management.

333 PRODUCTION AND OPERATIONS ANALYSIS *3 credits*
Prerequisites: 222 and 330. Application of quantitative models in the analysis and design of operational systems in manufacturing and service environments.

334 ADVANCED PRODUCTION AND OPERATIONS ANALYSIS *3 credits*
Prerequisite: 333. Application of advanced models in the analysis and design of operational systems in manufacturing and service environments.

341 HUMAN RESOURCE MANAGEMENT *3 credits*
Prerequisites: one course in psychology and/or sociology and 301. Principles, policies, practices in administering functions of recruiting, selecting, training, compensating, appraising human resources of organizations.

342 LABOR RELATIONS *3 credits*
Prerequisite: 341. Analysis of management, union and employee objectives, attitudes and strategy, as they affect conduct of business and economy. Stress placed on group assigned readings and reports.

407 SMALL BUSINESS MANAGEMENT *3 credits*
Prerequisite: 301. Focuses on problems of organizing and operating a small business. Case studies and field experiences.

408/508 ENTREPRENEURSHIP *3 credits*
Prerequisites: upper-college or graduate standing and 301 or 600 or equivalent. Examines the behavior and environment for entrepreneurship. Focuses on classic and contemporary entrepreneurs and the importance of personal values and strategies. Case studies. Field projects.

410/510 SELECTED TOPICS IN ENTREPRENEURSHIP *1-3 credits*
Prerequisites: upper-college or graduate standing and 301 or 600 or equivalent. Facilitates comparative international study of entrepreneurship, introduction of entrepreneurship to large organizations, or application of student's entrepreneurial skills. Six hour limit.

412/512 DEVELOPMENT OF MANAGEMENT THOUGHT *3 credits*
Prerequisites: upper-college or graduate standing and 301, or 600 or equivalent. Review of development of managerial theories from 5000 B.C. to present with consideration of their application to present organizational settings.

421 OPERATIONS RESEARCH *3 credits*
Prerequisite: 330. Examines the use of operations research techniques in managerial decision-making processes; constrained linear optimization, non-linear optimization, network analysis, queuing theory, simulation.

425 DECISION SUPPORT AND EXPERT SYSTEMS *3 credits*
Prerequisite: 325. Introduction to Decision Support & Expert Systems, design and development using spreadsheet software, Decision Support software and/or Expert Systems shells.

433 BUSINESS OPERATIONAL PLANNING *3 credits*
Prerequisite: 333. Emphasizes the importance of planning in the operations process. Includes forecasting and production management simulation exercises. Also introduces the concept and philosophy of continuous improvement.

434 PRODUCTION PLANNING AND CONTROL *3 credits*
Prerequisite: 333. Coverage of materials management, production planning, scheduling and control. Integrates material from previous courses, provides overall framework including use of computer and quantitative methods.

435 QUALITY CONTROL *3 credits*
Prerequisites: 330. Emphasis on statistical techniques essential to controlling product quality for both measurement and attribute data. Includes control chart methods and acceptance sampling plans.

436 ADVANCED QUALITY CONTROL APPLICATIONS *3 credits*
Prerequisite: 222 and 435. Applications of advanced topics including exponential and cusum charts, experimental design, evolutionary operations (EVOPS), planned experimentation (PLEX) and management of the quality function.

438 PRODUCT QUALITY DESIGN TECHNIQUES *3 credits*
Prerequisite: 222 and 435. Describes the techniques of designing quality into a product. It includes determining customer needs, Taguchi methods of quality loss functions and experimental design, reliability and service.

442 COMPENSATION MANAGEMENT *3 credits*
Prerequisite: 341. Focus on the design, implementation and evaluation of employee compensation and benefits programs.

443 ADVANCED HUMAN RESOURCE MANAGEMENT *3 credits*
Prerequisite: 341. Advanced study of current issues and problems in field of personnel. Emphasis given to current literature and research. Activities may include projects, library research, case studies.

455/555 MANAGEMENT OF ARBITRATION: COMMERCIAL, INTERNATIONAL AND HUMAN RESOURCES *3 credits*
Prerequisites: upper-college or graduate standing and 301 or 600 or equivalent. A comprehensive study of managerial strategies for commercial, international and human resource arbitration. Graduate requirement: research paper.

457 INTERNATIONAL MANAGEMENT *3 credits*
Prerequisites: upper-college standing and 301 or equivalent. Management practices and techniques of international business organizations. Focus on structure and processes of resource allocation, design and technology, and the impact of culture.

458 SELECTED TOPICS IN MANAGERIAL ARBITRATION, MEDIATION AND CONCILIATION *1-3 credits*
Prerequisites: upper-college or graduate standing and 301 or 600 or equivalent. Study of the various methods and mechanisms by which management can understand and deal with internal and external conflict. Six hour limit.

459 SELECTED TOPICS IN INTERNATIONAL MANAGEMENT *1-3 credits*
Prerequisites: upper-college standing; 301 or equivalent; and 457; or permission of instructor. Selected topics in international management focus on historical or contemporary managerial, production and organizational issues. Includes international simulation game. Six hour limit.

460 SPECIAL TOPICS IN MANAGEMENT *3 credits*
Exploration of advanced topics of interest both to the student and professor. Many special applications, case studies, outside speakers, projects in conjunction with local industries.

471/571 MANAGEMENT PROJECT *3 credits*
Prerequisite: 433 and 434 and 435* or 342 and 442 and 443* or 324 and 325 and 425* or 434 and 435 and 6600:370 and 6600:415* or 433 and 434 and 435 and 6200:460*. Capstone course in which the student applies the principles, practices, theories of his/her concentration area to an actual problem in an organization.

477 MANAGEMENT SIMULATION *1 credit*
Prerequisite: 301. Simulation of management practices through computerized game or experiential exercise.

478 HUMAN RESOURCE SIMULATION *1 credit*
Prerequisite: 341. Simulation of human resource practices through computerized or experiential exercises.

479 OPERATIONS SIMULATION *1 credit*
Prerequisite: 333. Simulation of operations management practices through computerized or experiential exercises.

480/580 INTRODUCTION TO HEALTH-CARE MANAGEMENT *3 credits*
Prerequisites: upper-college or graduate standing (Students who are required to take 301 or 600 or have completed 301 or 600 or equivalent are ineligible to take this course for credit). Introductory course for health professionals covering principles and concepts of management applied to health services organizations. For those registered for graduate credit, a major paper is required.

482/582 HEALTH SERVICES OPERATIONS MANAGEMENT *3 credits*
Prerequisites: upper-college standing and 301 or 480 or equivalents, or graduate standing and 580 or 600 or equivalent, or permission of instructor. (Students who have completed 330 are ineligible to take this course for credit). Application of production and operations management concepts and techniques in health services organizations.

485/585 SPECIAL TOPICS IN HEALTH SERVICES ADMINISTRATION *1-3 credits*
Prerequisite: permission of instructor. Special topics in health services administration (e.g., management) focusing on historical and/or contemporary managerial organizational and/or policy/strategy issues as related to health-care organizations and health-care systems. Separate topics may be repeated for a maximum of six credits. For those registered for graduate credit, a major research paper is required.

490 BUSINESS POLICY *3 credits*
Prerequisites: 97 credits and 6500:222, 301, 330; 6200:202, 250 or 255; 6400:371, 220 or 321; 6600:300; 6800:305. Capstone course. Integrates the core business disciplines (accounting, economics, finance, management, marketing) through the use of case analyses. Objective and strategy formulation from an administrative viewpoint and international dimension. Emphasis on oral and written communications.

* The student who has completed all but one of the required course prerequisites may enroll in the last required course concurrently with 471 with permission from the department management chair.

491 WORKSHOP IN MANAGEMENT *1-3 credits*
(May be repeated with permission of instructor or department) Group studies of special topics in management. May not be used to meet undergraduate major requirements in management. May be used for elective credits only.

495 INTERNSHIP IN MANAGEMENT *1-3 credits*
Prerequisite: permission of instructor. On-the-job experience with cooperating private and public sector organizations. Individual assignments made by supervising faculty member. Periodic reports, term papers required as appropriate.

497 HONORS PROJECT *-3 credits*
(May be repeated for a total of six credits) Prerequisite: senior standing in Honors Program. Individual senior honors thesis or creative project relevant to management approved and supervised by member of the department faculty.

499 INDEPENDENT STUDY: MANAGEMENT *1-3 credits*
Prerequisites: senior standing and permission of department head. Provides a means for individualized study in management from which student can derive significant value.

MARKETING

6600:

293 CAREER ORIENTATION *1 credit*
Reviews academic requirements for marketing and advertising majors and examines the professional skills and personal attributes required for a successful business career. Develops student career plan.

300 MARKETING PRINCIPLES *3 credits*
A general survey of marketing activities including analysis of markets, competition, consumer behavior, information systems, and the assessment of product, price, distribution, and promotion strategies.

305 ESSENTIALS OF RETAILING *3 credits*
Prerequisite: 300. Survey of basic concepts and principles of retailing including retail formats, store facilities, market analysis, site selection, merchandising management, retail pricing, and promotions management.

309 ESSENTIALS OF RETAIL MERCHANDISING *3 credits*
Prerequisite: 300. Practical retail applications in the planning and control of merchandise assortments, merchandise budgets, inventory systems, buying procedures, vendor relationships, and buying practices.

350 ADVERTISING *3 credits*
Prerequisite: 300. Explains and analyzes advertising's role in marketing operations. Special attention given to the integration with sales promotion, event marketing, direct response, and other support strategies.

355 BUYER BEHAVIOR *3 credits*
Prerequisite: 300. Interdisciplinary approach to the analysis of the nature of consumer buying behavior. Economical, social, and psychological influences on consumers' decision-making processes are examined.

370 PURCHASING *3 credits*
Prerequisite: 300. Process and activities associated with cost effective buying, international management of all materials and the equipment needed by the manufacturer to produce a product or provide a service.

375 PROFESSIONAL SELLING *3 credits*
Prerequisite: 300. Builds communication skills while learning about buyer needs, prospecting, making sales presentations, persuading, overcoming sales resistance, closing sales, and building relationships.

385 INTERNATIONAL MARKETING *3 credits*
Prerequisite: 300 and 6800:305. Provides a basic understanding of the complexities of foreign marketing. It assumes knowledge of the basic international business course.

390 MARKETING CHANNELS *3 credits*
Prerequisite: 300. An integrative approach to analysis of marketing channels of distribution to complement the more specialized analyses of retailing, wholesaling and physical distribution. Stresses the interaction of firms comprising a channel and the nature of managerial decisions designed to coordinate the efforts of the group of institutions that make up a channel of distribution.

415 BUSINESS LOGISTICS *3 credits*
Prerequisite: 300. Basic course in source, movement, and storage of goods, including emphasis on economics of transportation and requirements of an effective system.

425 ADVERTISING RESEARCH AND EVALUATION *3 credits*
Prerequisite: 350. The role and methods of research are studied as they relate to the planning of advertising campaigns, with attention to market analysis, competitor analysis, and copy and media planning. Post-campaign measurement of copy, media and marketing efficiencies and effectiveness are also studied.

430 PROMOTIONAL CAMPAIGNS *3 credits*
Prerequisite: 350. Examination of total communications efforts involved in planning, developing, and monitoring promotional campaigns. Focus is understanding the nature and roles of the advertiser, agency, and support services.

440 PRODUCT PLANNING *3 credits*
Prerequisite: 300. Examines the creation of new products and the management of existing products through the life cycle.

450 STRATEGIC RETAIL MANAGEMENT *3 credits*
Prerequisite: 300. Investigation of strategic and tactical retail decisions and issues through the use of case analysis, computer applications, experiential games, and field projects.

480 MARKETING RESEARCH *3 credits*
Prerequisites: 300, 6500:221. Emphasizes problem definition and solution approach to marketing research decisions. Situation and data analysis skills are developed through lectures, cases, field projects, and computer applications.

470 BUSINESS TO BUSINESS MARKETING *3 credits*
Prerequisite: 300. Covers industrial and organizational buyer behavior, as well as the strategic marketing management practices of firms selling to business organizations, governmental agencies, and institutions.

475 BUSINESS NEGOTIATIONS *3 credits*
Prerequisite: 300. Examines business negotiation principles and practices, and builds skills in the process of negotiating business agreements.

480 SALES MANAGEMENT *3 credits*
Prerequisite: 300. Develops analytical and managerial skills through case studies and other learning activities relating to the organization, selection, training, motivation, and control of a sales force.

490 MARKETING STRATEGY *3 credits*
Prerequisites: Senior standing and 425 or 460. Capstone course stressing integration of marketing functions through development of strategic thinking and analytical skills. Course employs case analysis, computer applications, and field projects.

491 WORKSHOP IN MARKETING *1-3 credits*
Group studies in special topics in marketing. May not be used to meet major requirements in marketing.

493 CAREER MANAGEMENT *1 credit*
Prerequisite: Senior standing. Examines major steps in organizing and conducting successful job searches. Students conduct career and market audits, develop resumes and letters, and participate in mock interviews.

495 INTERNSHIP IN MARKETING *1-3 credits*
Prerequisite: permission of instructor. On-the-job experience with cooperating private and public sector organizations. Individual assignments made by supervising faculty member. Periodic reports and term papers required as appropriate.

496 SPECIAL TOPICS IN MARKETING *1-3 credits*
Prerequisite: 300. (May be repeated for a total of three credits.) Provides an opportunity to examine special topics and/or current issues in the fields of marketing, sales retailing or advertising.

497 HONORS PROJECT *1-3 credits*
(May be repeated for a total of six credits.) Prerequisite: senior standing in Honors Program. Individual senior honors thesis or creative project, relevant to marketing, approved and supervised by member of the department faculty.

499 INDEPENDENT STUDY: MARKETING *1-3 credits*
Prerequisite: permission of instructor. Provides a means for individualized in-depth study of a marketing problem or problems from which student can derive significant benefit. May not be used to meet major requirements in marketing.

INTERNATIONAL BUSINESS

6800:

305 INTERNATIONAL BUSINESS *3 credits*
A basic course in international business which can also provide a platform for more specialized international business courses.

405 MULTINATIONAL CORPORATIONS *3 credits*
Prerequisite: 305 or permission of instructor. Course provides in-depth understanding of the functions, structures and strategic considerations governing the MNCs through theory and case study analysis.

421 INTERNATIONAL BUSINESS PRACTICES *3 credits*
Prerequisite: 305. An examination and comparison of contemporary business practices around the world. Develops sensitivity to alternative business practices and includes a strong component of cross-cultural communications.

495 INTERNSHIP IN INTERNATIONAL BUSINESS *1-3 credits*
Prerequisite: Permission of instructor. On-the-job experience with private or public sector organizations that operate within the global environment. Individual assignments made by supervising faculty member. Periodic reports and term papers required as appropriate.

496 SPECIAL TOPICS IN INTERNATIONAL BUSINESS *1-3 credits*
(May be repeated for a total of three credits) Prerequisite: Permission of instructor. Provides the opportunity to study special topics and current issues in international business.

497 HONORS PROJECT *1-3 credits*
(May be repeated for a total of six credits.) Prerequisite: senior standing in Honors Program. Individual senior honors thesis or creative project, relevant to international business, approved and supervised by member of the department faculty.

Note: Other international business courses are offered under departmental course numbers. They are 6200:408, 6400:323, 6400:481, 6500:457, 6500:459 and 6600:385.

College of Fine and Applied Arts

COOPERATIVE EDUCATION

7000:

301 COOPERATIVE EDUCATION *0 credits*
(May be repeated) For cooperative education students only. Work experience in business, industry, or governmental agency. Comprehensive performance evaluation and written report required.

ART

7100:

100 SURVEY OF HISTORY OF ART I *4 credits*
Architecture, sculpture, painting and minor arts from primitive sources through Gothic time period in Europe.

101 SURVEY OF HISTORY OF ART II *4 credits*
Prerequisite: 100. Architecture, sculpture, painting and minor arts from Renaissance through more recent times, primarily in Western art.

103 ARTS ORIENTATION *0 credits*
Corequisite: with first 7100 art course. Orientation to the information and strategies necessary to aid new art students in their understanding of the field of art.

105 UNDERSTANDING ART *3 credits*
Uses different societies have found for art and how social and technological levels of the society have affected the kind of art they make. No credit toward major in art.

121 THREE-DIMENSIONAL DESIGN *3 credits*
Introduction to meaning of "design" and act of designing in real space. Study of naturally occurring form, structure and process.

131 INTRODUCTION TO DRAWING *3 credits*
No prerequisite. Introduction to drawing materials and techniques with an emphasis on observation, representation, and formal principles of composition and design.

132 DRAWING FOR DESIGNERS *3 credits*
Creative uses of mechanical drawing processes for visually descriptive purposes. Proficiency in use of mechanical drawing instruments stressed. Both practical and theoretical drawing styles undertaken.

144 TWO-DIMENSIONAL DESIGN *3 credits*
Fundamental information about the theory and practice of visual design as applied to surfaces, including composition, color and pictorial illusions with lecture and studio experience.

170 FUNDAMENTALS OF PHOTOGRAPHY *3 credits*
A study of photography through lecture, demonstration and studio work. An exploration and enrichment opportunity for the non-art major. No credit toward major in art.

180 FUNDAMENTALS OF GRAPHIC DESIGN *3 credits*
A study of graphic design through lecture and studio work in a variety of media. An exploration and enrichment opportunity for the non-art major. No credit toward a major in art.

184 GRAPHIC DESIGN PRINCIPLES *3 credits*
Prerequisite: 144. Studio experience in concept development and processes, tools and materials of graphic designers. Elementary design problems in graphic design.

185 INTRODUCTION TO COMPUTER GRAPHICS *3 credits*
(May be repeated for a total of six credits) Prerequisites: 131 and 144 or 286 or permission of instructor. Introduction to the use of microcomputers as a creative tool for visual artists and designers.

210 VISUAL ARTS AWARENESS *3 credits*
Prerequisite: 3400:210. Lecture course providing appreciation and understanding of arts of various types/periods with emphasis on topics and influences on societies, rather than historical sequence

213 INTRODUCTION TO LITHOGRAPHY *3 credits*
Prerequisites: 131, 144. Use of lithographic stone and metal plate as printmaking media. Stone and plate preparation, lithographic drawing materials and techniques, paper registration and printing press covered. Emphasis on aesthetic theory, technique and related history.

214 INTRODUCTION TO SCREEN PRINTING *3 credits*
Prerequisites: 131, 144. Silk screen printmaking. Theory and use of stencil process, positive and negative block-out techniques, photo stencil, registration and printing procedures. Emphasis on aesthetic theory, technique and related history.

215 INTRODUCTION TO RELIEF PRINTING *3 credits*
Prerequisites: 131, 144. Printmaking using found objects, synthetic materials, as well as traditional woodcut and linoleum engraving. Emphasis on aesthetic theory, technique and related history.

216 INTRODUCTION TO INTAGLIO PRINTING *3 credits*
Prerequisites: 131, 144. Intaglio printmaking using drypoint engraving, aquatint and soft-ground techniques. Emphasis on aesthetic theory, technique and related history.

222 INTRODUCTION TO SCULPTURE *3 credits*
Prerequisite: 121. Exploration of aesthetic factors influencing sculptural statements. Development of proficiency in the use of tools, materials and techniques.

231 DRAWING II *3 credits*
Prerequisite: 131. Continued investigation of basic drawing concepts. Introduction to drawing in color with further development of observation, design, technique and conceptual skills.

233 LIFE DRAWING *3 credits*
Prerequisite: 131. Perceptual problems in drawing from the life model. Study of skeletal, muscular, mechanical nature of human figure and application of this knowledge to the resolution of aesthetic problems.

234 ANATOMY FOR ARTISTS *3 credits*
Prerequisite: 233. Studio/lecture experience in drawing and sculpture with an emphasis on human skeletal, muscular, and surface structure.

244 COLOR CONCEPTS *3 credits*
Prerequisites: 131, 144. Lecture and studio experience giving information concerning perception of color, additive color phenomena of light, subtractive color phenomena of pigments and dyes, color notation systems and psychological effects of color.

245 INTRODUCTION TO POLYMER ACRYLIC PAINTING *3 credits*
Prerequisites: 131, 144. Technical, aesthetic problems involved in polymer acrylic painting. Student pursues, through lecture and experimentation, transparent and opaque uses of this water-based paint.

246 INTRODUCTION TO WATERCOLOR PAINTING *3 credits*
Prerequisites: 131, 144. Studio course in theory and technique of watercolor painting. Study of traditional transparent watercolor methods, and experimentation with less conventional approaches to aqueous media.

247 INTRODUCTION TO OIL PAINTING *3 credits*
Prerequisites: 131, 144. Study of technical and aesthetic problems involved in oil painting. A painterly orientation toward plasticity of form as mediated by color.

248 AIRBRUSH TECHNIQUES *3 credits*
Prerequisites: 131, 144, or for graphic design majors, 286. Introduction to airbrush painting techniques with water-based media. Projects progress from exercises to personal expression..

249 FIGURE PAINTING *3 credits*
Prerequisites: 233 and 245, 246, or 247. Painting course with an emphasis on painting the figure from life.

250 PORTFOLIO REVIEW *0 credits*
Prerequisites: 121, 131, 144, 233. Credit/noncredit course. Faculty review of art foundation studio work from prerequisite/corequisite courses.

254 INTRODUCTION TO CERAMICS *3 credits*
Studio/lecture course exploring potentials of hand-building techniques in both sculptural and functional forms. Clay processing, glaze application and practical kiln firing.

266 INTRODUCTION TO METALSMITHING *3 credits*
Prerequisite: 121, 144. Studio experience in which student is introduced to properties of metals, processes of silversmithing and design and production of jewelry.

268 COLOR IN METALS *3 credits*
Prerequisite: 366. Introduction to a variety of techniques to achieve and/or combine color in metals. Techniques such as anodizing aluminum, enameling and the application of color resins and plastics will be explored.

275 INTRODUCTION TO PHOTOGRAPHY *3 credits*
Prerequisites: 131, 144, or 286. Lecture, studio and laboratory course. Techniques and aesthetics are studied using both 4x5 and 35mm cameras. A 35mm camera with full manual control is required.

276 INTRODUCTION TO PROFESSIONAL PHOTOGRAPHY *3 credits*
Prerequisite: 275. Students are introduced to the numerous commercial applications of studio and location photography while working through a series of advertising related photographic projects.

283 DRAWING TECHNIQUES *3 credits*
Prerequisites: 131 and 132. Includes advanced drawing and presentation techniques commonly used in graphic design. Various presentation and design problems will be encountered stressing use of selected drawing methods and processes.

285 ELECTRONIC STILL IMAGING *3 credits*
(May be repeated for a total of six credits) Prerequisite: 185 or permission of instructor. A follow up to Computer Graphics for Art I. High resolution imaging in both fine art and commercial applications.

288 TYPOGRAPHY *3 credits*
Prerequisite: 184, 185. Introduction to typographic design to communicate. Study of letterforms, history, comping skills, layout design and digital technology.

289 INTERMEDIATE COMPUTER DESIGN *3 credits*
Prerequisite: 288. A computer-based tools course. Using industry standard software, students focus on incorporating type and image to produce comprehensive design solutions.

300 ART SINCE 1945 *3 credits*
Prerequisite: 101 or permission of instructor. Consideration of significant developments in visual art forms since World War II in architecture, sculpture, printing, photography, metal, textile, ceramics, printmaking and graphic design.

301 MEDIEVAL ART *3 credits*
Prerequisite: 101 or permission of instructor. Painting, mosaics, architecture, sculpture, and luxury arts of medieval Europe from 4th through 14th centuries.

302 ART IN EUROPE DURING THE 17TH AND 18TH CENTURIES *3 credits*
Prerequisite: 101 or permission of instructor. Analysis of major European examples of architecture, landscape design, painting, prints and sculpture from beginning of the 17th Century until approximately 1850.

303 RENAISSANCE ART IN ITALY *3 credits*
Prerequisite: 101 or permission of instructor. Study of architecture, painting and sculpture of Italy during 13th through 16th Centuries.

304 ART IN EUROPE DURING THE 19TH CENTURY *3 credits*
Prerequisite: 101 or permission of instructor. Study and analysis of major developments in visual arts in Europe from 1800 to 1900.

305 ART FROM 1900 TO 1945 *3 credits*
Prerequisite: 101 or permission of instructor. Study of significant developments in visual arts from approximately 1900 to 1945.

306 RENAISSANCE ART IN NORTHERN EUROPE *3 credits*
Prerequisite: 101 or permission of instructor. Painting, architecture, and sculpture of northern Europe from 14th through 16th centuries.

317 PRINTMAKING II *3 credits*
Prerequisites: 213 or 214 or 215or 216 in the appropriate medium. Continuation of studio work in printmaking with concentration in intaglio, relief, lithography, or screen printing. May be repeated for a total of 12 credits with a different process.

318 PORTRAIT FASHION PHOTOGRAPHY *3 credits*
Prerequisite: 276. The fundamentals of commercial portraiture and fashion photography are explored through the study of styling, posing, lighting, and working with people.

319 PRINTMAKING PORTFOLIO REVIEW *0 credits*
Prerequisites: 318. A committee of full-time faculty review portfolio of studio work completed in all printmaking courses.

320 ILLUSTRATION/ADVERTISING PHOTOGRAPHY *3 credits*
Prerequisite: 276. Professionally oriented photographic skills are further developed as students confront assignments closely related to current trends in illustration and advertising photography.

321 FIGURATIVE SCULPTURE *3 credits*
Prerequisite: 233. Lecture/studio course exploring the use of the human figure as a sculptural subject. Individual interpretation of the figure using various media and techniques.

322 SCULPTURE II *3 credits*
(May be repeated for a total of nine credits) Prerequisite: 222 or permission. Continuation of 222. Addresses more advanced techniques. May include fabrication, casting, carving, or assemblage.

323 LOST WAX CASTING *3 credits*
Prerequisites: 7100:222 or 254 or 266 or 321. Bronze and aluminum casting using the lost wax process. Students learn foundry techniques and apply them to individual artistic statements.

331 DRAWING III *3 credits*
Prerequisites: 144, 231, 233. Development of personal concepts and imagery through investigation of historical and contemporary styles and issues.

333 ADVANCED LIFE DRAWING *3 credits*
(May be repeated for a total of six credits) Prerequisites: 231, 233. Studio course in drawing from human figure. Individual interpretation of human figure, using numerous media and drawing techniques. Emphasis on aesthetic structure and formal realization of personal intention.

334 DRAWING PORTFOLIO REVIEW *0 credits*
Prerequisite: 231; corequisites: 7100:331, 333. A committee of full-time faculty reviews portfolio of studio work completed in prerequisite/corequisite courses.

348 PAINTING II *3 credits*
(May be repeated for a total of nine credits, but limited to a maximum of three credits in a given medium) Prerequisites: 245, 246 or 247 in the appropriate medium. Continuation of painting with concentration in one medium as follows: Polymer Acrylic, Watercolor, Oil.

350 PAINTING PORTFOLIO REVIEW *0 credits*
Prerequisites: 245, 247, 348. A committee of full-time faculty reviews portfolio of studio work completed in prerequisite/corequisite courses.

354 CERAMICS II *3 credits*
Prerequisite: 254. Wheel throwing of both functional and sculptural form. Experiments in glaze chemistry and firing experience with both gas and electric kilns. Emphasis on technique, studio procedures and critical evaluation of each student's progress.

366 METALSMITHING II *3 credits*
(May be repeated for a total of six credits) Prerequisite: 266. Continuation of experiences presented in 266 with further development of skills and expansion of technical knowledge.

368 COLOR IN METALS II *3 credits*
(May be repeated for a total of nine credits) Prerequisite: 268. Continuation of 268. Advanced projects designed to develop the student's aesthetic values in color in metals. Emphasis on individual approach and experimentation.

370 HISTORY OF PHOTOGRAPHY *3 credits*
Prerequisite: 101. A lecture course studying the history of photography from its invention to contemporary issues.

375 PHOTOGRAPHY II *3 credits*
Prerequisite: 275. Projects utilizing photographic media and tools designed to expand student's awareness of visual qualities and order, both in the subject and photographic image. Student must own or have use of camera with controllable shutter, lens, diaphragm, focus and exposure meter.

383 MULTIMEDIA PRODUCTION *3 credits*
Prerequisites: 285. Introduction to the theory and methods of contemporary multimedia production. Exploration of the hardware/software employed in the organization, development and production of multimedia presentations.

383 MULTIMEDIA PRODUCTION *3 credits*
Prerequisite: 285. Introduction to the theory and methods of contemporary multimedia production. Exploration of the hardware/software employed in the organization, development and production of multimedia presentations.

384 GRAPHIC DESIGN PORTFOLIO REVIEW *0 credits*
Prerequisite: 288; corequisite: 387. Credit/noncredit course. Graphic design faculty review port folio of studio work completed in prerequisite/corequisite courses.

385 COMPUTER MODELING AND ANIMATION *3 credits*
Prerequisites: 121, 185. Advanced computer imaging course with an emphasis in three-dimensional modeling and animation. Can be repeated for a total of 9 credits.

386 PACKAGING DESIGN *3 credits*
Prerequisite: 387 or permission of instructor. Synthesis of two- and three-dimensional visual thinking. Research in materials applicable to packaging of various products. Assignment of projects stressing development of conventional and experimental package design.

387 ADVERTISING LAYOUT DESIGN *3 credits*
Prerequisites: 275, 283, 288. Corequisite: 276. Use of design systems and grids to develop skills from concept through final comprehensive presentations. Integration of typography, photography, copywriting and other visual elements into advertising and design.

388 PRODUCTION FOR DESIGNERS *3 credits*
Prerequisites: 276, 384, 387. More complex projects with emphasis given to mechanical preparation of finished art for various printing processes.

400/500 ART IN THE UNITED STATES BEFORE WORLD WAR II *3 credits*
Prerequisite: 101 or permission of instructor. Consideration of development of art in the United States from earliest evidences to approximately World War II.

401/501 SPECIAL TOPICS IN HISTORY OF ART *1-3 credits*
(May be repeated for credit when a different subject or level of investigation is indicated) Prerequisites: 100, 101 or permission of instructor. Lecture course in which subject is specified each time course is offered. Focuses upon an art movement, time period, the production of a single artist or a specific art medium.

402/502 MUSEOLOGY 3 credits
Lecture course dealing with museum science, including museum history, staff structures, art handling, storage, and presentation and exhibit preparation.

405/505 HISTORY OF ART SYMPOSIUM *1-3 credits*
(May be repeated for credit when a different subject is indicated) Prerequisite: one art history course beyond 101 or permission of instructor. Lecture, individual research and evaluation, group discussion related to a specific time period or to an artistic problem.

418 ADVANCED PRINTMAKING *3 credits*
(May be repeated for a total of 12 credits) Prerequisites: 121, 250, 317, 375, and either 245 or 246 or 247. Lectures, demonstrations and experiments with more sophisticated printmaking techniques and applications. Concentration in one process as follows: lithography, screen printing, relief, intaglio.

420 SCULPTURE PORTFOLIO REVIEW *0 credits*
Perquisites: 7100:222, 321, 322, 323; corequisite: 7100:422. A committee of full-time faculty reviews portfolio of studio work completed in prerequisite/corequisite courses.

422 ADVANCED SCULPTURE *3 credits*
(May be repeated for a total of nine credits) Prerequisite: 250 and 322. Development of individual points of view and sculptural statements.

431 DRAWING IV *3 credits*
Prerequisites: 250 and 331. Exploration designed for production of personally expressive drawings contributing to formation of career portfolio. Repeatable for a total of nine credits.

449 ADVANCED PAINTING *3 credits*
(May be repeated for a total of nine credits) Prerequisites: 121, 231, 233, 250, 348 in the appropriate medium. Advanced-level painting course. Opportunity to explore polymer acrylic, oil or water color painting techniques, and experiment with aesthetics of color, form and style. Concentration in one medium as follows: polymer acrylic, watercolor, oil.

454 ADVANCED CERAMICS *3 credits*
(May be repeated for a total of 15 credits) Prerequisite: 250 and 354. Emphasis on refinement of technique toward personal aesthetic statement in preparation for professional or private studio production. Student may choose a general survey of subject matter or a more concentrated area of study.

456 CERAMICS PORTFOLIO REVIEW *0 credits*
Prerequisites: 454. A committee of full-time faculty reviews portfolio of studio work completed in prerequisite courses.

466 ADVANCED METALSMITHING *3 credits*
(May be repeated for a total of 12 credits) Prerequisites: 250 and 366. Investigation in depth of aesthetic and technical problems of metalsmithing. Student works on individual projects under guidance from instructor.

467 METALSMITHING PORTFOLIO REVIEW *0 credits*
Prerequisite: 368; corequisite: 466 A committee of full-time faculty review portfolio of studio work completed in prerequisite courses.

475 ADVANCED PHOTOGRAPHY *3 credits*
(May be repeated for a total of 12 credits) Prerequisite: 250 and 375. Photographic media, light and photographic equipment manipulated experimentally to produce creative graphic images. Student works under guidance of instructor on advanced individual projects.

476 PHOTOGRAPHY PORTFOLIO REVIEW *0 credits*
Prerequisite: 475. A committee of full-time faculty reviews portfolio of studio work completed in prerequisite/corequisite courses.

477 ADVANCED PHOTOGRAPHY: COLOR *3 credits*
Prerequisite: 475. Advanced level lecture, studio, and lab experience in color photography introducing students to technical, aesthetic, and conceptual issues of the medium.

478 ADVANCED COMMERCIAL PHOTOGRAPHY *3 credits*
Prerequisites: 318 and 320. Exploration of advanced techniques including specialty lighting, special effects, industrial/corporate and architectural photography. Emphasis on developing personal style and professional quality images.

479 PROFESSIONAL PHOTOGRAPHIC PRACTICES *3 credits*
Prerequisites: 318 and 320. Students confront the business and marketing practices unique to the commercial photography industry while producing a photographically oriented self-promotional campaign.

480 ADVANCED GRAPHIC DESIGN *3 credits*
(May be repeated for a total of nine credits) Prerequisite: 388 or permission of instructor. Student works on advanced-level individual projects under supervision of instructor.

481 DESIGN X NINE *3 credits*
Prerequisite: 388. Course focusing on professional business practices. Students chosen by portfolio review in junior year. Practical experience gained through working with clients and outside sources.

482 CORPORATE IDENTITY AND GRAPHIC SYSTEMS *3 credits*
Prerequisite: 384 and 388. Advanced projects in corporate identity, graphic systems analysis, design. Problem solving for these specific areas of graphic design within mechanical limitations of art reproduction.

483 GRAPHIC DESIGN PRESENTATION *3 credits*
Prerequisite:7100:482. To be taken the last semester before graduation. Students prepare a professional portfolio and resume. Includes individual project development, portfolio review and exhibition.

484 ILLUSTRATION *3 credits*
Prerequisite: 283 or permission of instructor. Application of painting and drawing skills and aesthetic sensitivity to specific commercial illustration and editorial art assignments.

485 ADVANCED ILLUSTRATION *3 credits*
(May be repeated for a total of nine credits) Prerequisite: 484 or permission of instructor. Advanced projects designed to tune student's personal aesthetic to communicative imagery. A more individual approach to design. Drawing and painting emphasized as is experimentation with multimedia.

488 PUBLICATION DESIGN *3 credits*
Prerequisite: 482. Senior level investigation of publication design, promotional brochures, and annual reports from concept to presentation. Focus on good concepts and problem-solving design.

489 SPECIAL TOPICS IN STUDIO ART *3 credits*
(May be repeated for credit when a different subject or level of investigation is indicated) Prerequisite: Varies by course. Group Investigation of Topics not offered elsewhere in curriculum.

490/590 WORKSHOP IN ART *1-4 credits*
(May be repeated for credit when a different subject or level of investigation is indicated490 to maximum of eight credits; 590 to maximum of 12 credits) Prerequisite: advanced standing in art or permission of instructor. Group investigation of a particular phase of art not offered by other courses in curriculum.

491/591 ARCHITECTURAL PRESENTATIONS I *3 credits*
Prerequisites: Junior level or permission. Studio practice in architectural design and presentation methods in residential and commercial interiors.

492/592 ARCHITECTURAL PRESENTATIONS II *3 credits*
Prerequisites: 491/591. Continuation of concepts covered in Architectural Presentations I with additional work in color rendering techniques. Emphasis on a variety of rendering mediums.

495 SENIOR EXHIBITION *0 credits*
Prerequisite: senior standing and permission. Exit review of work from B.F.A. candidate's major courses.

496 ART INTERNSHIP/PROFESSIONAL EXPERIENCE *1-12 credits*
(Repeatable for credit. No more than 12 credits of internship may apply toward the elective requirement for completion of any art department major.) Prerequisites: junior level in major program and permission of Internship Director. In-depth professional training affording the intern on-the-job experience in selected areas of specialization.

497/597 INDEPENDENT STUDIES *1-3 credits*
(May be repeated) Prerequisites for art majors: advanced standing in area chosen and permission of instructor. Prerequisite for non-art majors: permission of instructor. Investigation in depth of aesthetic and technical problems within a studio-selected area of specialization. Student must present in writing a proposed study plan and time schedule for instructor approval.

498/598 SPECIAL PROBLEMS IN HISTORY OF ART *1-3 credits*
(May be repeated for credit when a different subject or level of investigation is indicated) Prerequisites: 14 credits in art history and permission of instructor. Individual research in art history centered around limited topic, such as specific time period, history of specific techniques, a single artist or movement in art history. No more than 10 credits will be counted toward major.

499 HONORS IN ART *3 credits*
(May be repeated for a total of six credits) Prerequisites: senior standing in the Honors Program and approval of honors project by faculty preceptor. To be used for research in the Honors Program established by student and his/her adviser(s).

FAMILY AND CONSUMER SCIENCES

7400:

123 FUNDAMENTALS OF CONSTRUCTION *3 credits*
Basic theory and application of construction fundamentals, including experiences with patterns and specialty fabrics.

125 PRINCIPLES OF APPAREL DESIGN *3 credits*
The study of contemporary apparel design and the relationship of design elements and principles to personal characteristics and social/professional orientation.

132 EARLY CHILDHOOD NUTRITION *2 credits*
Emphasis on nutrition as component of Early Childhood programs. Nutrition principles discussed in relation to self and young children. Prenatal and infant nutrition studied. Food as learning experience, menu planning, purchasing, sanitation, food labeling, storage and parent involvement included. For Family and Child Development Option, and an educational technology student.

133 NUTRITION FUNDAMENTALS 3 credits
Study of basic nutrition concepts, contemporary issues, controversies; emphasis on macro/micro nutrient requirements for healthy individuals; analysis of intake and energy balance.

139 THE FASHION AND FURNISHINGS INDUSTRIES *3 credits*
Overview of fashion and furnishings industries including production, distribution, promotion, and the impact of cultural influences. Discussion of career opportunities.

141 FOOD FOR THE FAMILY *3 credits*
Application of nutrition to meal planning; problems in selecting, budgeting and preparing food; meal service.

147 ORIENTATION TO PROFESSIONAL STUDIES IN HOME ECONOMICS AND FAMILY ECOLOGY *1 credit*
Survey of history and development of home economics with emphasis on professional and career opportunities.

158 INTRODUCTION TO INTERIOR DESIGN *3 credits*
Introduction to interior design studies with emphasis on developing basic skills and competencies required for residential design.

201 COURTSHIP, MARRIAGE AND FAMILY RELATIONSHIPS *3 credits*
Love, intimacy, relationship development, sexuality, marriage/child rearing are studied in lifespan perspective. Emphasis placed on individual relation to changing family/social/cultural demands.

204 SURVEY OF APPLIED HOME ECONOMICS IN THE COMMUNITY *1 credit*
Directed study and observation of ongoing community and business programs in home economics and family ecology related areas including housing, home management, family financial management, food and nutrition, clothing, child development, parent effectiveness and handicapping conditions through family life cycle. Weekly two-hour local tour in addition to class sessions.

218 FAMILY HEALTH AND HOME NURSING *2 credits*
Overview of strategies for generation of positive physical, mental and emotional health across individual and family life cycles. Emphasis on preventative strategies as well as home-care procedures.

219 CLOTHING COMMUNICATION *3 credits*
Study of cultural, social, psychological and economic aspects of clothing. Emphasis on expression and use of clothing in relation to self, society and culture. Lecture/discussion.

221 EVALUATION OF APPAREL AND HOUSEHOLD TEXTILES *3 credits*
Prerequisite: 225. Emphasis on product knowledge and the development of evaluation criteria useful in selecting apparel and household textiles.

225 TEXTILES *3 credits*
Basic study of natural and manufactured fibers. Emphasis on physical properties, selection and care. Attention given to design and manufacture of textiles. Lecture/Laboratory.

245 FOOD THEORY AND APPLICATION I *3 credits*
Prerequisites: 133, 3150:110 or permission of instructor. Scientific and aesthetic principles involved in the selection, storage and preparation of foods for optimum nutrition, palatability and safety. Lecture/Lab.

246 FOOD THEORY AND APPLICATION II *3 credits*
Prerequisite: 245. Study of chemical and physical structure of foods and the effects of natural changes, preparation and processing on properties and acceptability. Lecture/Laboratory.

255 FATHERHOOD: THE PARENT ROLE *3 credits*
Prerequisites: 201 or 265. Historic evolution of the father role, its changing social definition, and father's potential effects on a child's development—birth through adolescence.

257 AUTOCAD FOR INTERIOR DESIGN *3 credits*
Prerequisites: 158 or permission from instructor. An introductory course in computer drafting as an alternative to conventional drafting for interior design applications.

258 LIGHT IN MAN-MADE ENVIRONMENTS *3 credits*
Prerequisite: 158. Comprehensive study of the essential principles of light in a three-dimensional context for man-made environments..

259 FAMILY HOUSING *3 credits*
A study of three basic aspects of family housing: physical/design, financial/legal, and sociological.

265 CHILD DEVELOPMENT *3 credits*
Physical, cognitive, language, social, emotional, and personality development of the child from prenatal through age eight. Observation of children in early childhood educational settings.

270 THEORY AND GUIDANCE OF PLAY *3 credits*
Prerequisite: 265. Theory and guidance of play as primary vehicle and indicator of physical, intellectual, social, emotional development and learning of children from birth to kindergarten.

275 PLAY AND CREATIVE EXPRESSION ACTIVITIES *4 credits*
Prerequisite: 265. Importance of play in child's social, emotional, intellectual and physical growth. Encouragement of creativity in adults and children through planned experiences that provide for individual expression.

280 CREATIVE ACTIVITIES FOR PRE-KINDERGARTEN CHILDREN *4 credits*
Prerequisite: 265. Planning, presenting, evaluating creative activities in art, music, movement, language arts, logico-mathematics and science. Space, time, materials and adult-child interaction are emphasized.

290 ADMINISTRATION OF CHILD-CARE CENTERS *3 credits*
Prerequisites: 265, 275 or permission of instructor. Study of principles, concepts and procedures involved in working with children in preschool programs. Curriculum innovation and implementation, parent involvement, observation and recording of children's progress.

295 DIRECT EXPERIENCES IN THE HOSPITAL *1 credit*
Prerequisite: permission of adviser. Individual learning experiences for students with patients, their families and the hospital personnel in various hospital settings under the direction of hospital and University staff.

300 LEGAL ENVIRONMENT OF FAMILIES *3 credits*
Introduction to legal terminology, reasoning and analysis, court systems and procedures within the context of family and consumer law.

301 CONSUMER EDUCATION *3 credits*
Study of consumer needs, concerns and problems as related to individual consumer, to consumers in the market economy and to the complex society in which families function.

302 CONSUMERS OF SERVICES *3 credits*
A study of the services sector of the economy. Emphasis is on a framework for studying all service providers and in developing criteria for evaluating service providers.

303 CHILDREN AS CONSUMERS *3 credits*
Study of the consumer role of children three through eighteen years. Emphasizes research data on children as consumers and consumer education for children.

305 ADVANCED CONSTRUCTION AND TAILORING *3 credits*
Prerequisite: 123. Advanced theory and principles in construction of couture garment. Construction of coat or suit jacket utilizing custom tailoring techniques. Two hours lecture, four hours laboratory.

310 FOOD SYSTEMS MANAGEMENT I *5 credits*
Prerequisites: 245; 6200:201 or 2420:211 or permission; corequisite: 315. Basic theoretical concepts in the management of dietetic food service systems and the practical application of principles and procedures in quantity food production and service.

311 STUDIES IN FIBER ARTS *3 credits*
Exploration of a specific fiber arts technique such as needle arts, weaving, surface design, wearable art, or machine stitchery. (May be repeated for a total of nine credits.)

315 FOOD SYSTEMS MANAGEMENT I CLINICAL *2 credits*
Prerequisite: 245; corequisite: 310. Development of quantity food preparation and supervisory skills in community agencies; identification of functions and resources involved in the management of food service systems.

316 SCIENCE OF NUTRITION *4 credits*
Prerequisites: 3100:209, 3150:113, or instructor permission. In-depth characterization of composition, metabolism, physiological functions and interrelationships of nutrients. Analysis and interpretation of current literature; assessment of nutrition counseling techniques.

328 NUTRITION IN MEDICAL SCIENCE I *4 credits*
Prerequisite: 133 or 316, 426, or instructor permission. Analysis of therapeutic health-care concepts. Consideration of nutritional implications of pathological conditions; construction of diets for specific disorders.

329 NUTRITION IN MEDICAL SCIENCE I CLINICAL *2 credits (credit/noncredit)*
Prerequisites: 316 or 426. CP student only; corequisite: 328. Clinical experiences in area hospitals for application of principles of nutritional care learned in 328.

331 INTERIOR DESIGN THEORY *3 credits*
Prerequisites: 158, 259. A comprehensive study of interior design theories and application in the built environment.

332 HUMAN FACTORS AND INTERIOR SPACE *3 credits*
Prerequisites: 158, 259. A comprehensive study of human factors in order to insure the proper relationship between user and interior spaces.

333 SPACE PLANNING AND PROGRAMMING *3 credits*
Prerequisites: 7400:158,259; 7100:491. A comprehensive study of space planning principles and the programming phase of the design process.

334 SPECIFICATIONS FOR INTERIORS I *3 credits*
Prerequisites: 7400:225,158,259. A comprehensive study of composition, characteristics, manufacture, dimensions and use, bi-products, installation, and specifications of interior construction materials.

335 SPECIFICATIONS FOR INTERIORS II *3 credits*
Prerequisites: 7400:225,158,334. A comprehensive study of interior finish material with emphasis on soft goods and textiles, selection criteria, estimating, and writing specifications.

336 PRINCIPLES AND PRACTICES OF DESIGN *3 credits*
Prerequisites: 7400:158,258,333,334,335; 2940:250. Study of the business of interior design to include initiating and maintaining a successful practice in residential or non-residential design.

337 INTERIOR DESIGN CONTRACT DOCUMENTS *3 credits*
Prerequisites: 158, 258, 7100:491 and 492. A comprehensive study of contract documents and work drawings required for the design of interior spaces. Emphasis on three-dimensional representation.

340 MEAL SERVICE *2 credits*
Prerequisites: 245 or 141. Management of resources in relation to marketing, meal preparation and service; appropriate forms of service for various types of meals. Preparation of foods from various parts of the world.

352 STRATEGIC MERCHANDISE PLANNING *3 credits*
Prerequisite: 6600:340 or 2520:201. The fashion buyer's role in merchandise management and decision making with spreadsheets and merchandise mathematics incorporated into computer simulations.

360 PARENT-CHILD RELATIONS *3 credits*
Prerequisite: 265. The study of interactive parent-child relations from infancy through adult hood and the internal and environmental forces which impact upon family dynamics.

362 FAMILY LIFE MANAGEMENT *3 credits*
Introduction to management theories, processes and principles as applied to utilization of human and material resources in promotion of individual and family well-being.

390 FAMILY RELATIONSHIPS IN MIDDLE AND LATER YEARS *3 credits*
Exploration of family and individual development during middle and later years of life. Emphases on issues related to intimacy, economics, social policies, psychological and biological changes.

395 COMMUNITY INVOLVEMENT IN HOME ECONOMICS *1-3 credits*
Development of managerial expertise through experience. Selected participation sites in business and industry, hospitals, community agencies and with individual families with special managerial problems.

401/501 FAMILY-LIFE PATTERNS IN THE ECONOMICALLY DEPRIVED HOME *2 credits*
Study of family life orientation and life-style patterns among economically deprived with emphasis on impact or socioeconomic and psychological deprivation on family members throughout family life span.

403/503 ADVANCED FOOD PREPARATION *3 credits*
Prerequisite: 141 or 245 or permission of instructor. Study of advanced techniques of food preparation. Introduction to and interpretation of classic and foreign cuisines. Emphasis on individualized experience, skill development and evaluation of procedures and results.

404/504 ADOLESCENCE IN THE FAMILY CONTEXT *3 credits*
Prerequisites: 201, 265 or permission of instructor. The influences of adolescent behavior on the family and the influence of the family environment on adolescent development.

406/506 FAMILY FINANCIAL MANAGEMENT *3 credits*
Analysis of the family as a financial unit including financial problems and their resolution, decision-making patterns and financial practices behavior. Cases, exercises, problems and computer analysis.

412 INSTITUTIONAL MANAGEMENT *3 credits*
Organization and management in administration of food service systems; problems in administration of food service systems; problems in control of labor, time and cost. Field experience in food production.

413 FOOD SYSTEMS MANAGEMENT II *3 credits*
Prerequisite: 310. Advanced concepts in management of dietetic service systems relating to achievement of nutritional care goals.

414 FOOD SYSTEMS MANAGEMENT II CLINICAL *3 credits (credit/noncredit)*
Prerequisite: 315; corequisite: 413. CP students only. Application of advanced food systems management concepts in community dietetic food service facilities; preparation for entry-level staff positions as administrative dietitians; clinical experience for 24 hours per week for 10 weeks of semester.

415 HOUSEHOLD EQUIPMENT *2 credits*
Selection, use and care of modern household equipment. Survey of commercial equipment used in home economics related professions.

418/518 HISTORY OF INTERIOR DESIGN I *4 credits*
The study of furnishings, interiors, and architecture from antiquity through the eighteenth century, with emphasis on the social-cultural influences shaping their development.

419/519 HISTORY OF INTERIOR DESIGN II *4 credits*
The study of nineteenth- and twentieth-century furnishings, interiors, and architecture, with emphasis on the social-cultural influences shaping their development.

420/520 EXPERIMENTAL FOODS *3 credits*
Prerequisites: 246, 3150:111. Theory and methods in the experimental study of foods. Sensory evaluation and instrumental analysis of food quality. Individual research emphasized. Lecture/Laboratory.

421 SPECIAL PROBLEMS IN HOME ECONOMICS *1-3 credits*
Additional study or apprentice experience in specialized field or preparation; group and individual experimentation.

422 FAMILY RESOURCE MANAGEMENT *3 credits*
Theoretical and practical experiences utilized in study of management processes and principles as applied to families. Management of human and material resources and decision-making processes emphasized.

423/523 PROFESSIONAL IMAGE ANALYSIS *3 credits*
Prerequisites: Senior status. Comparison of theories associated with projecting and maximizing an appropriate professional image consistent with career goals and objectives.

424/524 NUTRITION IN THE LIFE CYCLE *3 credits*
Prerequisite: 316 or 426, or permission of instructor. Study of the physiological basis for nutritional requirements; interrelating factors which affect growth, development, maturation and nutritional status from conception through the elderly years.

425/525 ADVANCED TEXTILES *3 credits*
Prerequisite: 225. Evaluation of physical, aesthetic, comfort, care, and durability properties of textile products and testing procedures to determine suitability for desired end uses.

426 THERAPEUTIC NUTRITION *5 credits*
Prerequisites: 133, 3100:209, 3150:111, or instructor's permission. Application of principles of nutrition, metabolism and assessment. Analysis and interpretation of current literature. Open to dietetics majors only.

427/527 GLOBAL ISSUES IN TEXTILES AND APPAREL *3 credits*
Prerequisite: 139. Examines the global structure and scope of the textile and apparel industries emphasizing an economic perspective.

428 NUTRITION IN MEDICAL SCIENCE II *5 credits*
Prerequisite: 328. Continuation of 328. Emphasizing nutritional implications of more complex metabolic and pathological conditions as well as nutrition support strategies.

429 NUTRITION IN MEDICAL SCIENCE II CLINICAL *3 credits (credit/noncredit)*
Prerequisites: 329, CP students only; corequisite: 428. Clinical experience in hospitals; application of principles of nutritional care learned in 428.

430 COMPUTER-ASSISTED FOOD SERVICE MANAGEMENT *3 credits*
Use of computer programs in application of management concepts for food service systems.

433 SENIOR DESIGN STUDIO I *3 credits*
Prerequisites: 158, 258, 333, 334, 335, 337; 7100:491; 2940:250. A comprehensive study of residential design with emphasis on conceptual, analytical, and graphic skills.

434 SENIOR DESIGN STUDIO III *3 credits*
Prerequisites: 158, 258, 333, 334, 335, 337; 7100:491; 2940:250. Advanced space planning and problem solving experiences for application in nonresidential design.

435 DECORATIVE ELEMENTS IN INTERIOR DESIGN *1 credit*
Prerequisites: 158, 418, and 7100:210. The selection and application of decorative elements in the built environment.

436/536 TEXTILE CONSERVATION *3 credits*
Prerequisites: 123, 225. Principles and practices of textile conservation with emphasis on procedures appropriate for collectors and small historical agencies.

437/537 HISTORIC COSTUME TO 1800 *3 credits*
Study of costume and textiles from antiquity through the 18th century, with emphasis on social/cultural influences.

438/538 HISTORY OF FASHION SINCE 1780 3 credits
Study of 19th and 20th century western fashions, textiles, and designers with emphasis on social-cultural influences.

439 FASHION ANALYSIS *3 credits*
Prerequisite: 139. In-depth study of resources and processes for the analysis and forecasting of fashion trends. Emphasis on current designers and environmental forces that influence fashion.

440/540 FAMILY CRISIS *3 credits*
Study of family stress and crisis including internal and external variables and their influence on degree of disorganization, coping and recovery. Includes theory, research and application dimensions.

442/542 HUMAN SEXUALITY *3 credits*
Prerequisite: 201 or permission of instructor. Introduction to problems and values. Emphasis is on the role of values in intimate relationships, the diverse dimensions of sexual responsibility.

445/545 PUBLIC POLICY AND THE AMERICAN FAMILY *3 credits*
How legislation in such areas as housing, clothing, consumer affairs, family formation and dissolution, resource conservation, child development and health care affects and, in some cases, determines the nature, structure and quality of the family as a social institution.

446/546 CULTURE, ETHNICITY AND THE FAMILY *3 credits*
Study of the role of culture and ethnicity in adaptation of the family system to environment. Program applications considered.

447 SENIOR SEMINAR: CRITICAL ISSUES IN PROFESSIONAL DEVELOPMENT *1 credit*
Prerequisites: 147 and senior standing. Consideration of home economics as a profession and its impact on the quality of life of individuals, families and their environments. Analysis of challenges facing the profession and all home economists.

448/548 BEFORE AND AFTER SCHOOL CHILD CARE *2 credits*
Study of the development, implementation and evaluation of school-age child-care programs for before and after school and vacation periods.

449/549 FLAT PATTERN DESIGN *3 credits*
Prerequisite: 123. Theory and experience in clothing design using flat pattern techniques.

450 DEMONSTRATION TECHNIQUES *2 credits*
Prerequisite: major only. Provides practical experience in organization and presentation of demonstrations. Emphasis on competencies in coordination of materials, motion and speech in presentation.

451/551 CHILD IN THE HOSPITAL *4 credits*
Prerequisite: 265, comparable course or permission of instructor. Seminar dealing with special needs and problems of hospitalized/ill child and family. Literature related to effects, separation, illness and stress. Examination of strategies for coping.

455/555 PRACTICUM: ESTABLISHING AND SUPERVISING A CHILD-LIFE PROGRAM *3 credits*
Prerequisite: 451/551. Explores procedures for implementing and setting up child-life programs; critical analysis of currently functioning program.

458 SENIOR DESIGN STUDIO II *3 credits*
Prerequisites: 158, 258, 333, 334, 335,337; 7100:491; 2940:250. A comprehensive study of the nonresidential design with emphasis on conceptual, analytical and graphic skills.

459 SENIOR DESIGN STUDIO IV *3 credits*
Prerequisites: 158, 258, 332, 333, 334, 335, 337; 7100:491; and 2940:250. Advanced space planning and problem solving experiences for application in residential and nonresidential design.

460/560 ORGANIZATION AND SUPERVISION OF CHILD CARE CENTERS *3 credits*
Theory, principles and procedures involved in establishing and operating centers for infants, toddlers, preschool and school-age children.

470/570 THE FOOD INDUSTRY: ANALYSIS AND FIELD STUDY *3 credits*
Prerequisite: 245 or permission. Role of technology in extending the food supply. Chemical, physical and biological effects of processing and storage, on-site tours of processing plants.

474/574 CULTURAL DIMENSIONS OF FOOD *3 credits*
An examination of cultural, geographical and historical influences on development of food habits. Emphasis on evolution of diets; effects of religion, education, gender roles, media.

475/575 ANALYSIS OF FOOD *3 credits*
Prerequisites: 3150:113 and 7400:245. Theory and practice of food analysis by classical and modern chemical and instrumental methods. Principles illustrated by experimentation and demonstration.

476/576 DEVELOPMENTS IN FOOD SCIENCE *3 credits*
Prerequisite: 246. Advanced study of the chemistry and physics of food components, affecting characteristics of foods. Critical evaluation of current basic and applied research emphasized.

478 SENIOR PORTFOLIO REVIEW *1 credit*
Prerequisites: 333, 433, 458, 2940:250, and 7100:491, 492. Corequisites: 434, 459. The development of the interior design portfolio.

479 THE NCIDQ EXAMINATION *1 credit*
Prerequisites: 158, 258, 331, 333, 418, and 2950:250. The course is designed to help candidates prepare for the National Council for for Interior Design Qualification Examination..

480/580 COMMUNITY NUTRITION I LECTURE *3 credits*
Perquisites: 316 or 426. Corequisite: 481 for CP students only. Major food and nutrition related problems in the community. Emphasis on community assessment, program implementation and evaluation, and rationales for nutrition services.

481/581 COMMUNITY NUTRITION I CLINICAL *1 credit (credit/noncredit)*
Prerequisite: CP students only; 428. Corequisite: 480/580. Field placement in area agencies offering nutrition services. Study of the agency's goals, organization, and philosophy of nutritional care.

482/582 COMMUNITY NUTRITION II LECTURE *3 credits*
Prerequisite: 480. Corequisite: 483 for CP students only. Activities engaged in by community nutritionist. Emphasis on controversies, cultural differences, educational approaches, grants manship, marketing, and working with the media.

483/583 COMMUNITY NUTRITION II CLINICAL *1 credit (credit/noncredit)*
Prerequisite: CP students only; 481/581. Corequisite: 482/582. A second field placement in an area agency offering nutrition services. Study of the agency's goals, organization, and philosophy of nutritional care.

484/584 ORIENTATION TO THE HOSPITAL SETTING *2 credits*
Prerequisite: 265, comparable course or permission of instructor. Focuses on hospital as a major social institution; introduces procedures and functions of the hospital; roles played by various hospital personnel plus cursory knowledge of medical terminology, common childhood diseases, illnesses and injuries.

485/585 SEMINAR IN HOME ECONOMICS *1-3 credits*
Prerequisite: permission of instructor. Exploration and evaluation of current developments in selected areas.

486 STAFF RELIEF: DIETETICS *1 credit (credit/noncredit)*
Prerequisites: 414, CP senior only. Opportunity to function as an entry-level dietitian in area of administrative, therapeutic or community dietetics. The graduating senior CUP student spends two 40-hour weeks in a mutually agreeable agency primarily under direction of staff dietitians or coordinators.

487/587 SPORTS NUTRITION *3 credits*
Prerequisites: 133; 3100:209; 3150:113 or 203 or permission of instructor. In-depth study of energy metabolism and utilization before, during, and after exercise. Factors affecting nutrient needs and peak performance of different athletic populations are emphasized.

488/588 PRACTICUM IN DIETETICS *1-3 credits*
Prerequisite: approval of advisor/instructor. Practical experience in application of the principles of nutrition.

489/589 PROFESSIONAL PREPARATION FOR DIETETICS *1 credit*
Historical aspects of dietetics and where the profession is going. Specialty areas of dietetic practice are explored. Students prepare the application for dietetic internship.

490/590 WORKSHOP IN HOME ECONOMICS AND FAMILY ECOLOGY *1-3 credits*
Prerequisite: at least junior standing. Investigation on current issue or topic in selected areas of home economics and family ecology. May be on off-campus study tour or an on-campus full-time group meeting.

491/591 WORKSHOP IN HOME ECONOMICS AND FAMILY ECOLOGY *1-3 credits*
Prerequisite: junior standing. Current issues and topics in selected areas of home economics and family ecology. On/off campus or combined.

495 INTERNSHIP: GUIDED EXPERIENCES IN CHILD-LIFE PROGRAM *8 credits*
Prerequisite: 455. A field experience in a child-life program as a child-life specialist at Children's Hospital-Medical Center of Akron.

496/596 PARENTING EDUCATION *3 credits*
Prerequisite: 265, comparable course or permission of instructor. Practical application that reviews and analyzes various parenting techniques with major emphasis on the evaluation of parent education programs.

497 INTERNSHIP: HOME ECONOMICS *2-6 credits*
Prerequisite: permission of instructor. In-depth field experience in business, industry or community agencies related to student's area of specialization.

499 SENIOR HONORS PROJECT IN HOME ECONOMICS AND FAMILY ECOLOGY *1-3 credits*
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors Program and approval of honors preceptor. Individual study supervised by adviser. Student and preceptor develop goals, objectives and methodology.

MUSIC

7500:

100 FUNDAMENTALS OF MUSIC *2 credits*
Introduction of basic notation and development of functional music reading and keyboard skills. Conducted in electronic keyboard laboratory with computer-assisted instruction available. For non-music majors only, with little or no previous musical training.

101 INTRODUCTION TO MUSIC THEORY *2 credits*
Designed for prospective music major to correct deficiencies in theory background as determined through department placement testing. Includes classroom instruction and computer-assisted instruction in basic notation, scales, meter, key signatures, ear training and basic familiarity with the keyboard. Credit not applicable toward music degree.

103 TRENDS IN JAZZ *2 credits*
An overview of the first 100 years of jazz music with emphasis on major figures and styles central to the development of jazz. This course is specifically designed for the non-music major.

104 CLASS PIANO I *2 credits*
Prerequisite: 101 or permission of instructor. Designed for student with no previous keyboard experience to learn rudimentary keyboard skills such as playing scales, chords, arpeggios and melodic patterns as well as simple music.

105 CLASS PIANO II *2 credits*
Prerequisite: 104 or permission of instructor. Continuation of work begun in 104.

107 CLASS VOICE I *2 credits*
Prerequisite: 101 or permission of instructor. Minimum memorization and solo singing requirement: seven songs. Voice literature emphasis; folk songs, ballads, spirituals, sacred songs and easy art songs in English.

108 CLASS VOICE II *2 credits*
Prerequisite: 107. Minimum memorization and solo singing requirement: eight songs. Vocal literature emphasis: old Italian and English songs, art songs in English or foreign language if student is conversant with the language.

110 CLASS GUITAR *1 credit*
Prerequisite: permission of instructor. Introduction to the guitar, its repertoire and techniques. Basic classical techniques and music reading, strums, finger-picking, accompaniment patterns, blues styles will be covered.

141 EAR TRAINING/SIGHT READING I *1 credit*
Prerequisite: 101, or passing placement test, or permission of instructor. The development of skills in Ear Training, Sight Reading and Rhythm.

142 EAR TRAINING/SIGHT READING II *1 credit*
Prerequisite: 141 or permission of instructor. Ear Training, Sight Reading and Rhythm Development; includes modulations, chromatic, whole-tone melodies; asymmetric meters and polyrhythms.

151,2 THEORY I, II *3 credits each*
Sequential. Prerequisite: 101 or permission of instructor. Study and creative use of elements of music; investigation of music of major composers of classic and romantic eras; introduction to earlier musical practices and contemporary music.

154,5 MUSIC LITERATURE I, II *2 credits each*
Sequential. Familiarization with large body of musical material from all branches of music writing; vocal, instrumental, symphonic and choral music literature. Special attention given to style, form and structural procedures of principal composers.

157 STUDENT RECITAL *0 credits*
Required of all music majors until minimum requirement is met. Forum for student and faculty members providing lectures, recitals and opportunity for practice of various skills necessary for successful music performance.

201 EXPLORING MUSIC: BACH TO ROCK *3 credits*
Prerequisite: 3400:210. This course provides non-music majors with the skills to evaluate a wide range of music.

205 MARCHING BAND ORGANIZATION AND TECHNIQUE *1-2 credits*
Prerequisite: Two semesters 7510:126 or one semester 7510:126 and equivalent experience as determined by instructor. A discussion of the marching band. Student learns to write complete half-time show, administer marching band program. Required for instrumental music education majors.

210 JAZZ IMPROVISATION I *2 credits*
Prerequisites: 262 and permission of instructor. Study and application of principles of jazz improvisation as they relate the chord-scale structures, motif development and style.

211 JAZZ IMPROVISATION II *2 credits*
Prerequisite: 210. Advanced study in principles of jazz composition.

212 THE MUSIC INDUSTRY: A SURVEY OF PRACTICES AND OPPORTUNITIES *2 credits*
A study of current practices affecting the professional musician and a survey of career opportunities relating to the music industry.

241 EAR TRAINING/SIGHT READING III *1 credit*
Prerequisite: 142 or permission of instructor. Ear Training, Sight Reading and Rhythm Development; includes two-part dictation, transposition, simple composition.

242 EAR TRAINING/SIGHT READING IV *1 credit*
Prerequisite: 241 or permission of instructor. Ear Training, Sight Reading and Rhythm Development, includes dictation in three and four parts; thorough bass and composition.

251,2 THEORY III, IV *3 credits each*
Sequential. Prerequisite: 152. Renaissance vocal counterpoint; Baroque instrumental counterpoint; form and analysis of music of all eras.

254,5 STRING INSTRUMENT TECHNIQUES I, II *2 credits each (25 clinical hours each)*
Sequential. Fundamentals of technique, tone production, methods and materials pertaining to violin, viola, cello and string bass; heterogeneous string ensemble activities.

259 FRETBOARD HARMONY *2 credits*
Prerequisite: 261 or permission of instructor. Essentials of basic theory and harmony as applied to the guitar fretboard: accompaniment, improvisation, transposition, modulation, figures bass, sight reading.

261,2 KEYBOARD HARMONY I, II *2 credits each*
Sequential. Prerequisites: 105 or equivalency and 152. Essentials of basic theory and harmony practically applied at keyboard; accompaniment, improvisation, transposition, modulation and sight-reading.

263 SERVICE PLAYING FOR ORGANISTS *2 credits*
Prerequisites: 152 and 261. Practical course in basic keyboard skills needed by organist to play for religious services in various denominations. Hymn playing, anthem accompaniment and simple improvisation.

265,6 DICTION FOR SINGERS II *2 credits each*
Sequential. Prerequisite: permission. Study of diction of the four most used languages (Italian, German, French and English) in vocal performance and international phonetic alphabet. Designed for student who expects to function as vocal performers and/or choral and studio voice teachers.

271 PIANO PEDAGOGY AND LITERATURE I *2 credits*
Prerequisite: permission of instructor. Examination of musical content and pedagogical orientation of beginning piano material to include appropriate teaching works, methods and ensemble pieces from a variety of historical periods.

272 PIANO PEDAGOGY AND LITERATURE II *2 credits*
Prerequisite: 7520:125 or permission of the instructor. A survey of piano literature at all levels of difficulty, with practical emphasis on its use for teaching.

276 TRUMPET AND FRENCH HORN METHODS *1 credit*
A comprehensive approach to the performance and pedagogy of the trumpet and French horn for the instrumental music education major in preparation for teaching music.

277 CLARINET/SAXOPHONE METHODS *1 credit*
A comprehensive approach to the performance and pedagogy of the clarinet and saxophone for the instrumental music education major in preparation for teaching music.

297 INTRODUCTION TO MUSIC EDUCATION *2 credits*
Prerequisites: 141,142,152, 154. Overview of the music teaching profession and its processes. Screening of degree candidates is built into the course along with clinical field experience.

307 TECHNIQUES OF STAGE BAND PERFORMANCE AND DIRECTION *1-2 credits*
Prerequisite: permission of instructor. Basic experiences relating to conducting, rehearsal techniques, improvisation, performance, repertoire and other matters related to organization and direction of stage bands. Required for instrumental majors.

308 THE HISTORY AND LITERATURE OF JAZZ *3 credits*
Prerequisite: permission of instructor. Study of origins of jazz music, its development and influence on today's culture. Investigates evolution of musical instruments as they pertain to jazz music, the artists who perform on them, and their music through live and recorded listening experiences.

309 JAZZ KEYBOARD TECHNIQUES *2 credits*
Prerequisite: 262. Study of and familiarization with basic jazz keyboard techniques as they relate to contemporary jazz harmony and theory.

310 JAZZ IMPROVISATION III *2 credits*
Prerequisite: 211. Advanced study in the principles of jazz improvisation.

311 JAZZ IMPROVISATION IV *2 credits*
Prerequisite: 310. Advanced study in the principles of jazz improvisation.

320 MUSICAL THEATRE HISTORY AND LITERATURE I *2 credits*
From the beginning of Musical Theatre through the 1800s, musicals will be examined for emerging trends and styles in music, dance, and theatre.

325 RESEARCH IN MUSIC *2 credits*
Prerequisites: 155,161, 252, 262. Techniques of basic research methods; examination of selected music materials; field trips to specialized collections.

339 MUSIC IN EARLY CHILDHOOD *2 credits (25 clinical hours, 10 field hours)*
Students will develop strategies for teaching music to children, birth through eight years of age, through the study of child development and age-appropriate musical repertoire.

340 TEACHING GENERAL MUSIC *2 credits (30 clinical hours, 20 field hours)*
Prerequisites: 141, 142, 155, 241, 242, 252, 262, 297. Students will develop strategies for teaching music to children, from the middle years on into adulthood, through age-appropriate musical material and activities.

341 CURRICULAR INNOVATIONS IN GENERAL MUSIC *3 credits (30 clinical hours, 20 field hours)*
Prerequisites: 141, 142, 155, 241, 242, 252, 262, 297, 340. Intensive study of principles, techniques, and materials of Orff, Kodaly, and other current general music methods appropriate for grades K-12. Clinical and field experiences.

342 ELEMENTARY INSTRUMENTAL MUSIC *2 credits*
Prerequisites: 141, 142, 155, 241, 242, 252, 262, 276, 277, 297, 346,458. This course prepares teachers for developing innovative elementary instrumental programs. Students will survey materials for creative teaching in instrumental music. Clinical and field experiences.

343 SECONDARY INSTRUMENTAL MUSIC *2 credits (30 clinical hours, 20 field hours)*
Prerequisites: 342. Introduction to procedures for teaching instrumental music at the secondary level as well as principles of secondary instrumental curriculum design. Clinical and field experiences.

344 SECONDARY CHORAL METHODS *2 credits*
Prerequisite: 297 or instructor permission. Methods, techniques, and materials for teaching secondary choral music. Develops competencies in literature, selection, rehearsal techniques, and programming methodology.

345 LOW BRASS METHODS *1 credits*
A comprehensive approach to the pedagogy and performance of the low brass for the instrumental music education major in preparation for teaching musicß.

346 FLUTE AND DOUBLE REED METHODS *1 credits*
A comprehensive approach to the pedagogy and performance of the flute and double reeds for the instrumental music education major in preparation for teaching musicß.

351,2 MUSIC HISTORY I, II *3 credits each*
Sequential. Prerequisites: 152, 155. Development of music from ancient to modern times; scores, recordings and live performances as illustrative material.

353 ELECTRONIC MUSIC *3 credits*
Theory of electronically generated sound and practice of electronic music composition. Emphasis is on understanding digital and analog synthesizers in a MIDI recording studio.

358 FUNCTIONAL CLASS GUITAR *2 credits*
Prerequisite: knowledge of music rudiments and permission of instructor. Provides student in music education with basic rudiments of guitar playing as related to use in music classrooms.

361 CONDUCTING *2 credits*
Study and practice of conducting techniques; patterns, fermatas, tempo and dynamic change, attacks and releases, score reading, aural skills. One hour lab required.

363 INTERMEDIATE CONDUCTING: CHORAL *2 credits*
Prerequisite: 361 or instructor permission. Introduction to choral conducting with emphasis on manual techniques, vocal skills, aural skills, and gaining conducting experience.

365 SONG LITERATURE *2 credits*
Prerequisite: 252 or permission. Exposes student systematically to vocal literature, aiding in their ability to distinguish between various periods and styles of music through recordings and class participation.

368 GUITAR STYLES *2 credits*
Prerequisite: 200 performance level or permission of instructor. Techniques involved in performing musical styles other than those in classical guitar. Included are plectrum styles such as bluegrass, country and rock, as well as flamenco, folk, popular and jazz.

371 ANALYTICAL TECHNIQUES *2 credits*
Prerequisite: 252. Techniques for analysis of musical score from all eras of Western music history, with major emphasis on works of Baroque, Classical and Romantic periods.

372 TECHNIQUES FOR THE ANALYSIS OF 20TH CENTURY MUSIC *2 credits*
Prerequisite: 252. Techniques for the analysis of musical scores from the 20th Century. Required of a theory-composition major.

407 JAZZ ARRANGING AND SCORING *2 credits*
Prerequisite: 454 and 309. Study of jazz instrumentation from small groups to large ensembles.

432/532 TEACHING AND LITERATURE: PERCUSSION INSTRUMENTS *2 credits*
To train undergraduate and graduate percussion students in techniques of percussion education. Emphasis on research, literature, performance, and techniques from elementary through secondary levels.

451/551 INTRODUCTION TO MUSICOLOGY *2 credits*
Prerequisite: 352. Comparative musicology; acoustics; psychology and physiology of music; aesthetics; theory of music theory; historical musicology.

452 COMPOSITION *2 credits*
Prerequisite: 252 or permission of instructor. Study and creative use of major styles and idioms of musical composition; emphasis on 20th-Century techniques.

453/553 MUSIC SOFTWARE SURVEY AND USE *2 credits*
Prerequisite: 152 or permission of instructor. A survey and evaluation of available software in the various forms of musical instruction. Students will design a course suitable for submission to a programmer.

454 ORCHESTRATION *2 credits*
Prerequisite: 252. Theory of instrumentation ranging from small ensembles to full band and orchestras.

455/555 ADVANCED CONDUCTING: INSTRUMENTAL *2 credits (30 clinical hours)*
Prerequisite: 361, 343. Baton techniques and problems relating to practice, reading and preparation of scores; organization of ensembles; programming; conducting large instrumental ensembles. One hour lab required.

456/556 ADVANCED CONDUCTING: CHORAL *2 credits*
Prerequisite: 361 or equivalent. Conducting techniques to the choral ensemble, including leadership, error detection, tonal development, stylistic accuracy and analysis. One hour lab required.

457 SENIOR RECITAL *0 credits*
Permission of applied instructor is required for this course, which is taken only during the semester of the Senior Recital.

456 PERCUSSION METHODS *1 credit*
A comprehensive approach to the pedagogy and performance of the percussion instruments for the instrumental education major in preparation for teaching music.

462/562 REPERTOIRE AND PEDAGOGY: ORGAN *3 credits*
Prerequisite: permission of instructor. Survey of organ literature of all eras and styles, and of methods of teaching organ, applying principles to literature.

463/563 REPERTOIRE AND PEDAGOGY: STRING INSTRUMENTS *3 credits*
Prerequisite: permission of instructor. Study in depth of the four bowed string instruments, their teaching and close relationship. Despite obvious difference in physical application of cello and bass from violin and viola, methods of bowing, sound production and coloring are closely related. Application of the instruments to solo, chamber and orchestral playing.

467/567 GUITAR PEDAGOGY *2 credits*
Prerequisite: permission of instructor. A systematic analysis of prevailing schools of guitar pedagogy. Sound production physiology, method books and special problems in teaching addressed.

468/568 GUITAR ARRANGING *2 credits*
Prerequisite: permission of instructor. After comparative analyses of selected examples, students make original solo guitar arrangements of works written for other solo instruments and ensembles.

469/569 HISTORY AND LITERATURE OF THE GUITAR AND LUTE *2 credits*
Prerequisite: permission of instructor. Study of plucked, fretted, string instruments from the 14th Century to the present: construction, notation, literature and performance practices. Modern editions and recordings evaluated.

471 COUNTERPOINT *2 credits*
Prerequisite: permission of instructor. Designed to give student of theory-composition necessary knowledge and skills for understanding contrapuntal practices and procedures; emphasis on 20th-Century techniques.

472 ADVANCED ORCHESTRATION *2 credits*
Prerequisite: 454. Study of techniques of orchestral style as found in major works from classical orchestra of Haydn and Mozart through modern orchestra of Stravinsky, Bartok, Berg and Schoenberg.

490/590 WORKSHOP IN MUSIC *1-3 credits*
Prerequisite: permission of instructor. Investigation of topics not offered in regular curriculum. Graduate student must fulfill additional requirements.

491 SPECIAL TOPICS IN MUSIC *2 credits*
(May be repeated for a total of four credits) Group project related to a specific phase of music. Experimental course topics designed and implemented according to student interest. For elective credit only.

492 STUDENT TEACHING COLLOQUIUM *1 credit*
Prerequisite: restricted to students enrolled in Student Teaching in Music. For music education majors; certification, contracts, benefits, job market prospects and student teaching experience sharing.

497 INDEPENDENT STUDY IN MUSIC *1-2 credits*
(May be repeated for a total of four credits) Prerequisites: senior standing and permission of department head. Music major only. Independent study under supervision of specially selected faculty members in subject area bearing on student's own goals.

498 SENIOR HONORS PROJECT: MUSIC *1-3 credits*
(May be repeated for a total of six credits) Individually designed project demonstrating scholarship, analysis, advanced musicianship, research and/or creativity according to student interest. Restricted to University honors music student.

MUSICAL ORGANIZATIONS

7510:

102 AKRON SYMPHONY CHORUS *1 credit*
Open to University and community members by audition. Prospective members should contact School of Music two weeks before semester begins. Performs with Akron Symphony Orchestra.

103 UNIVERSITY SYMPHONY ORCHESTRA *1 credit*
Membership by audition. Organization devoted to study of orchestral literature. Full-length concerts as well as special University appearances. Major conducted ensemble.

104 SYMPHONIC BAND *1 credit*
Membership by audition. The University Symphonic Band is the most select band at the University and performs the most demanding and challenging music available. Major conducted ensemble.

105 VOCAL CHAMBER ENSEMBLE *1 credit*
Membership open to those enrolled in applied voice study. Coaching and rehearsal of solo and ensemble literature for voices from operatic, oratorio and lieder repertories.

106 BRASS ENSEMBLE *1 credit*
Membership by audition. Study and performance of literature for brass ensemble from all periods of music history. Frequent public concerts. For advanced brass players.

107 STRING ENSEMBLE *1 credit*
Membership by audition. In-depth study of performance of chamber music literature with special emphasis on string quartet and piano trio.

108 OPERA WORKSHOP *1 credit*
Membership by audition. Musical and dramatic group study of excerpts from operatic repertoire. Includes annual production of standard opera and/or contemporary chamber work with staging, costumes and scenery.

109 PERCUSSION ENSEMBLE *1 credit*
Membership by audition. Study and performance of literature for various percussion groups; develops skill in ensemble performance.

110 WIND CHOIR *1 credit*
Membership by audition. Study, reading, and performance of major orchestral and serenade repertoire for wind instruments.

111 CHAMBER ORCHESTRA *1 credit*
Membership by audition. Organization designed to study for performance the substantial repertoire for small orchestra. Open to student of advanced ability.

114 KEYBOARD ENSEMBLE *1 credit*
Involves three hours a week of accompanying. Keyboard major required to enroll for at least three years. Music education major may substitute another musical organization for one year.

115 JAZZ ENSEMBLE *1 credit*
Membership by audition. Provides experience in jazz ensemble performance. Student is assumed to have knowledge of rudiments of music and some experience in jazz performance.

116 GUITAR ENSEMBLE *1 credit*
Membership by audition. Provides experience in conducted ensemble performance for guitarists. Major conducted ensemble.

118 SMALL ENSEMBLE MIXED *1 credit*
Chamber Ensemble, Baroque Ensemble and Contemporary Music Ensemble. Each is a group of diverse instruments which rehearses and performs a selected body of music.

120 CONCERT CHOIR *1 credit*
Membership by audition. Highly select mixed choir. Performs classical literature from all periods. Campus, regional, and tour performances. "Major conducted ensemble" for vocal majors.

121 UNIVERSITY SINGERS *1 credit*
Membership by audition. Mixed ensemble devoted to performance of a wide variety of choral literature from classical to popular. "Major conducted ensemble" for vocal majors.

123 MADRIGAL SINGERS *1 credit*
Membership by audition. Ensemble devoted to performance of vocal chamber music of the Renaissance. Presents madrigal feasts and concerts on and off campus. Fall semester.

124 OPERA CHORUS *1 credit*
Open to students and members of University community by audition. Rehearsal and production of opera and musical theatre literature with staging, costumes, and scenery.

125 CONCERT BAND *1 credit*
Membership by audition. This ensemble performs the finest literature available for concert bands today. Major conducted ensemble.

126 MARCHING BAND *1 credit*
Enrollment is open to all members of the University student body. This organization is noted for its high energy performances at University football games.

127 BLUE AND GOLD BRASS *1 credit*
Membership by audition. The official band for Akron home men's basketball games.

128 UNIVERSITY BAND *1 credit*
This ensemble is active during Spring Semester only, and is open to all members of the University community.

129 BLUE AND GOLD BRASS II *1 credit*
Membership by audition. The official band for Akron home ladies basketball games.

421/521 GUITAR CHAMBER MUSIC *1 credit*
Prerequisite: Open to all upper class instrumentalists and vocalists. Guitarists must have taken Guitar Ensemble, 7510:116. Study, coaching, and performance of major works for guitar with other instruments or voice. Major conducted ensemble for guitar majors.

APPLIED MUSIC

7520:

Prerequisite: Placement audition in the School of Music.Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition.

021-69 APPLIED MUSIC FOR NON-MAJORS *2-4 credits each*

Prerequisite: Permission of applied instructor. For students whose performance skills are not sufficient for placement at the 100 level or for elective credit in non-music programs. No credit toward any major in music. A fee is charged in addition to regular tuition.

021	**PERCUSSION**	**037**	**OBOE/ENGLISH HORN**
022	**CLASSICAL GUITAR**	**038**	**CLARINET/BASS CLARINET**
023	**HARP**	**039**	**BASSOON/CONTRABASSOON**
024	**VOICE**	**040**	**SAXOPHONE**
025	**PIANO**	**041**	**HARPSICHORD**
026	**ORGAN**	**042**	**COMPOSITION**
027	**VIOLIN**	**061**	**JAZZ PERCUSSION**
028	**VIOLA**	**062**	**JAZZ GUITAR**
029	**CELLO**	**063**	**JAZZ ELECTRIC BASS**
030	**STRING BASS**	**064**	**JAZZ PIANO**
031	**TRUMPET/CORNET**	**065**	**JAZZ TRUMPET**
032	**FRENCH HORN**	**066**	**JAZZ TROMBONE**
033	**TROMBONE**	**067**	**JAZZ SAXOPHONE**
034	**BARITONE**	**068**	**JAZZ COMPOSITION**
035	**TUBA**	**069**	**JAZZ VOCAL STYLES**
036	**FLUTE/PICCOLO**		

121-469/521-569 APPLIED MUSIC FOR MUSIC MAJORS *2 or 4 credits each*

The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level.

121-221-321-421/521 PERCUSSION

122-222-322-422/522 CLASSICAL GUITAR

123-223-323-423/523 HARP

124-224-324-424/524 VOICE

125-225-325-425/525 PIANO

126-226-326-426/526 ORGAN

127-227-327-427/527 VIOLIN

128-228-328-428/528 VIOLA

129-229-329-429/529 CELLO

130-230-330-430/530 STRING BASS

131-231-331-431/531 TRUMPET OR CORNET

132-232-332-432/532 FRENCH HORN

133-233-333-433/533 TROMBONE

134-234-334-434/534 BARITONE

135-235-335-435/535 TUBA

136-236-336-436/536 FLUTE OR PICCOLO

137-237-337-437/537 OBOE OR ENGLISH HORN

138-238-338-438/538 CLARINET OR BASS CLARINET

139-239-339-439/539 BASSOON OR CONTRABASSOON

140-240-340-440/540 SAXOPHONE

141-241-341-441/541 HARPSICHORD

142-242-342-442/542 PRIVATE LESSONS IN MUSIC COMPOSITION *2-4 credits each*

(May be repeated) Prerequisites: 7500:252 and permission of instructor; 7500:452 recommended.Private instruction in composition. Primarily for student whose major is theory-composition.

161-261-361-461 JAZZ PERCUSSION

162-262-362-462 JAZZ GUITAR

163-263-363-463 JAZZ ELECTRIC BASS

164-264-364-464 JAZZ PIANO

165-265-365-465 JAZZ TRUMPET

166-266-366-466 JAZZ TROMBONE

167-267-367-467 JAZZ SAXOPHONE

168-268-368-468 JAZZ COMPOSITION

169-269-369-469/569 JAZZ VOCAL STYLES

COMMUNICATION

7600:

102 SURVEY OF MASS COMMUNICATION *3 credits*

Considers entire field of contemporary American mass communication. Presents and explains functions of agencies through which news, views and entertainment reach the general public.

105 INTRODUCTION TO PUBLIC SPEAKING *3 credits*

Introduction to principles and practice of speaking by reading examples of speeches, studying techniques and methods employed and applying them in a variety of speaking situations.

106 EFFECTIVE ORAL COMMUNICATION *3 credits*

Principles of communication in speaker-audience, group and informal settings, and application of the principles in speeches, group discussions and other oral and written assignments.

115 SURVEY OF COMMUNICATION THEORY *3 credits*

Presents models of major forms of speech communication and discusses elements of models, their interaction and their function in the human communication system.

200 CAREERS IN COMMUNICATION *1 credit (credit/noncredit)*

A survey of career opportunities in the communication field. Outside speakers; field trips.

201 NEWS WRITING *3 credits*

Prerequisite: ability to type. Writing of news stories; applying theory through discussions, illustrative material; actual writing for publication.

206 FEATURE WRITING *3 credits*

Prerequisite: 201. Short newspaper and magazine articles, preparation of articles for publication, human interest situations, extensive writing with class discussion.

225 LISTENING *1 credit*

Techniques and approaches involved in understanding the listening process and practice of listening improvement techniques.

226 INTERVIEWING *3 credits*

Study and practical application of selected interviewing concepts associated with job interviewing, journalistic interviewing, and life review interviewing.

227 NONVERBAL COMMUNICATION *3 credits*

Focused study of the principal aspects of nonverbal communication in public, group and interpersonal settings.

230 WZIP-FM* *1 credit*

231 FORENSICS* *1 credit*

232 BUCHTELITE* *1 credit*

233 TEL-BUCH* *1 credit*

235 INTERPERSONAL COMMUNICATION *3 credits*

Theory and practice in interpersonal communication concepts and principles. Special topics in communication apprehension, assertive communication, communication dyads and triads, and transactional communication.

245 ARGUMENTATION *3 credits*

Study of process of developing, presenting and defending inferences and arguments in oral communication setting. Includes study and practice of evidence, reasoning, case construction, refutation and rebuttal.

252 PERSUASION *3 credits*

Emphasis on understanding persuasion theory and practice. Includes information analysis of motivational appeals and introduction to propaganda analysis.

270 VOICE TRAINING FOR MEDIA *3 credits*

Safe and effective uses of the vocal instrument in its specific application to radio, television and films.

280 MEDIA PRODUCTION TECHNIQUES *3 credits*

Introduction to production techniques used in the mass communication covers sound, image, lighting, fundamentals of conveying messages on slide, film and video.

282 RADIO PRODUCTION *3 credits*

Study of radio production techniques and the functional operation of AM and FM radio stations. Includes practical production experience in studio.

283 TELEVISION PRODUCTION *3 credits*

Prerequisite: 280. Function, structure and influence of television as communication medium with practical production experience in studio.

301 ADVANCED NEWS WRITING *3 credits*

Prerequisite: 201. Advanced course in writing and editing news, features and analysis for print media. Behavioral approach to communication of information and ideas.

302 BROADCAST NEWSWRITING *3 credits*

Prerequisites: 201, 280. The course is designed to teach students how to write, prepare, and deliver broadcast news copy for radio and television.

303 PUBLIC RELATIONS WRITING *3 credits*

Prerequisites: 201, ability to type. Introduction of writing skills required by public relations practitioners emphasizing different approaches for specific publics and specific media.

304 EDITING *3 credits*

Prerequisite: 201. Copyreading, headline writing, proofreading, makeup, type and typography, printing machines and processes, newspaper methods and systems.

306 MAGAZINE WRITING *3 credits*

Prerequisites: 201, 206. An advanced writing course designed to develop the specialized researching, reporting, and writing skills needed in consumer and specialized business magazines today.

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* Total repeats not to exceed eight credits.

(Note: Students being paid salaries from Student Activity Funds are not eligible for credit.)

307 COMMERCIAL ELECTRONIC PUBLISHING *3 credits*
Prerequisite: 201. Explore basic principles of magazine publishing in its broad definition, layout, type and typography, paint production of magazines.

309 PUBLIC RELATIONS PUBLICATIONS *3 credits*
Prerequisites: 201 and 303. Preparation of publications used as communication tools in public relations, advertising and organizations. Emphasis upon design, layout and technology.

325 INTERCULTURAL COMMUNICATION *3 credits*
Study of effect on oral communication process of existence of cultural barriers. Includes study of verbal and nonverbal communication in transracial, informal international and diplomatic communicative settings.

344 GROUP DECISION MAKING *3 credits*
Study of communication and decision making in small groups. Practice in techniques of group decision-making. Introduction to theory of group communication.

345 BUSINESS AND PROFESSIONAL SPEAKING *3 credits*
Prerequisite: 7600:105 or 106. Practical improvement in speaking skills used in business settings.

346 ADVANCED PUBLIC SPEAKING *3 credits*
Prerequisite: 7600:105 or 106. Theory and practice of public speaking: audience analysis; advanced methods for organizing persuasive speeches; techniques of research, style, and delivery; professional speech writing; extensive speaking practice.

355 FREEDOM OF SPEECH *3 credits*
Discussion and analysis of the Constitution's free speech guarantee; contemporary issues in freedom of communication; role of the media in free speech issues.

362 VIDEO CAMERA AND RECORDING *3 credits*
Prerequisite: 280. Principles of electronic image recording; studio and field camera operation; studio and field location lighting practice.

368 BASIC AUDIO AND VIDEO EDITING *3 credits*
Prerequisite: 280. Basic audio and video editing theory and practice. Introduction to A/B roll and computerized editing systems.

375 COMMUNICATION TECHNOLOGY AND CHANGE *3 credits*
Prerequisite: 102 or permission. Study of technological innovation and change in electronic media. Evaluation of communication policy issues and the impact of technological change in electronic media. Evaluation of communication policy issues and the impact of technological change on consumers and industries.

383 ADVANCED TELEVISION PRODUCTION *3 credits*
Prerequisite: 283 and permission. Television production operations in a studio environment. Practice producing and directing. Studio equipment operation. Lab fee.

384 COMMUNICATION RESEARCH *3 credits*
Prerequisites: 102, 115. Fundamental concepts and methods of survey research, and the application and interpretation of survey data in communication and in media operations.

385 AMERICAN FILM HISTORY: THE BEGINNING TO 1945 *3 credits*
Acquaints undergraduate student with historical developments of film and film concepts; ends with films of 1945.

386 AMERICAN FILM HISTORY: 1945 TO THE PRESENT *3 credits*
Continuation of student's survey of film history and film concepts begun in 385.

387 RADIO AND TV WRITING *3 credits*
Practical application of script writing principles and techniques used in writing scripts for commercials, announcements, comedy/drama, news and documentaries.

388 HISTORY AND STRUCTURE OF BROADCASTING *3 credits*
Growth of broadcasting in America; historical evolution of approaches to programming, news and financing of broadcasting operations.

395 RADIO STATION PROGRAMMING AND OPERATIONS *3 credits*
History and development of radio programming from early formation to present; nature, structure and function of educational and commercial radio broadcasting.

396 TELEVISION STATION PROGRAMMING AND OPERATIONS *3 credits*
Examines the operations and programming processes of a broadcast station; programming philosophies, broadcast schedules, feature and syndication acquisition, local productions, issues of staffing and funding.

400/500 HISTORY OF JOURNALISM IN AMERICA *3 credits*
A review and analysis of the historical evolution of journalism in America, focusing primarily on newspapers, magazines, radio, television.

403 PUBLIC RELATIONS STRATEGIES *3 credits*
Prerequisites: 201, 303, and 309. Selected communication theories used to analyze and implement effective public relations programs with emphasis placed upon research, planning, promotional messages and evaluation of program.

404 PUBLIC RELATIONS CASES *3 credits*
Prerequisites: 303, 309, and 403. Continuation of 403. Application of principles of public relations profession in an actual organizational setting.

405 MEDIA COPYWRITING *3 credits*
Prerequisite: 309. Selected communication theories and research techniques used to plan, write and analyze commercial messages. Emphasis will be placed on selection of audience, medium, appeal, writing style and evaluation of efforts.

408/508 WOMEN, MINORITIES AND NEWS *3 credits*
Study of images of women in U.S. news, along with the power women and minorities have as decision-makers in the news industry.

410 JOURNALISM MANAGEMENT *3 credits*
This course is designed to educate students in the management of journalistic operations, including the magazine and newspaper industries.

435/535 COMMUNICATION IN ORGANIZATIONS *3 credits*
Prerequisite: 345 or permission. Overview of theories and approaches for understanding communication flow and practices in organizations, including interdepartmental, networks, superior-subordinate, formal and informal communication.

436/536 ANALYZING ORGANIZATIONAL COMMUNICATION *3 credits*
Prerequisites: 344, 384 and 435. or permission. Methodology for in-depth analysis and application of communication in organizations; team building; conflict management, communication flow. Individual and group projects; simulations.

437 TRAINING METHODS IN COMMUNICATION *3 credits*
Prerequisite: 345 or permission. Principles and concepts in the design and delivery of communication training programs; integration of theory and methodology; presentation skills; matching methods and learner needs.

439 INDEPENDENT STUDY *1-12 credits*
(May be repeated for a total of 12 credits) Prerequisite: permission of faculty. Directed independent readings, research, projects and productions. Written proposal must be submitted before permission is granted. Appropriate documentation of work required.

450 SPECIAL TOPICS IN COMMUNICATION *3 credits*
(May be repeated for a total of nine credits) Special interest topics in mass communication, journalism, or communication, supplementing courses listed in University Bulletin. See department for current listing of offerings.

454/554 THEORY OF GROUP PROCESSES *3 credits*
Group communication theory and conference leadership as applied to individual projects and seminar reports.

457/557 PUBLIC SPEAKING IN AMERICA *3 credits*
Survey and critical analysis of major speakers, speeches and speech movements in American history. Examines how style and content of American speaking influenced events and reflected their times.

462/562 ADVANCED MEDIA WRITING *3 credits*
Prerequisites: 201, 280, or equivalent. Analysis of production problems and design and their effect on writing scripts for electronic production.

464/564 CORPORATE VIDEO MANAGEMENT *3 credits*
Prerequisite: 463. Budgeting for individual productions and production facilities, scheduling, script breakdown, management of corporate and health service media facilities.

468/568 ADVANCED AUDIO AND VIDEO EDITING *3 credits*
Prerequisite: 280, 368, or equivalent. Advanced computerized multitrack audio and video editing. Theory and practice of multi-track sound mix for video productions.

470 ANALYSIS OF PUBLIC DISCOURSE *3 credits*
Identifies principal textual and contextual elements of public discourse and presents various theories and models to be applied in studying rhetorical acts.

471/571 THEORIES OF RHETORIC *3 credits*
Study of key figures in history of rhetorical theory, stressing interrelationships among theories of rhetoric, intellectual climates and social climates.

480 COMMUNICATION INTERNSHIP *1-8 credits*
(May be repeated for a total of eight credits) Prerequisites: 24 credits in departmental courses, 2.5 overall GPA, and permission. Provides student with supervised experience and on-the-job training. Written permission must be obtained from the School prior to the term for which credit is to be received.

484 REGULATIONS IN MASS MEDIA *3 credits*
Concentration on government regulations and self-regulatory bodies in broadcasting, film and print media.

485 SENIOR HONORS PROJECT IN COMMUNICATION *1-6 credits*
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors Program; approval of honors preceptor. Independent study project leading to completion of senior honors thesis or other original work.

486 BROADCAST SALES AND MANAGEMENT *3 credits*
Prerequisite: 384. Using simulation and case history techniques, this course examines the sales and decision-making processes of a broadcast station.

490/590 COMMUNICATION WORKSHOP *1-3 credits*
(May be repeated for a total of six credits) Group study or group projects investigating a particular phase of media not covered by other courses in curriculum.

493/593 ELECTRONIC MEDIA PRODUCTION *3 credits*
Prerequisite: permission. Practical application of writing, directing, management, recording, and editing skills in problems in electronic media production.

SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY

7700:

101 BEGINNING SIGN LANGUAGE I *3 credits*
Introduction to manual communication: Vocabulary building; development of fingerspelling skills and expressive/receptive sign language skills.

102 BEGINNING SIGN LANGUAGE II *3 credits*
Prerequisite: 101. Introduction to manual communication: Vocabulary building; development of fingerspelling skills and expressive/receptive sign language skills.

110 INTRODUCTION TO DISORDERS OF COMMUNICATION *3 credits*
Overview of various types of speech disorders; their incidence, etiology and characteristics. Basic concepts and principles underlying speech pathology.

120 INTRODUCTION TO AUDIOLOGY/AURAL REHABILITATION *4 credits*
(Not open to speech-language pathology and audiology major) Introduction to field of audiology including physics of sound, anatomy and physiology of auditory system, measurement of hearing impairment, nature and causes of hearing disorders and habilitation of persons with hearing impairment.

121 PSYCHO SOCIAL ASPECTS OF DEAFNESS *2 credits*
The effects of deafness on the emotional, social, motor and intellectual development of the individual; the effects of deafness on interpersonal relationships.

140 INTRODUCTION TO HEARING SCIENCE *3 credits*
Normal anatomy and physiology of hearing system and acoustics of hearing. Survey of field of audiology. Nature of hearing problems.

201 INTERMEDIATE SIGN LANGUAGE *3 credits*
Prerequisite: 102. Vocabulary expansion; emphasis on expressive/receptive communication, fingerspelling, and fluency.

202 ADVANCED SIGN LANGUAGE *3 credits*
Prerequisite: 201. Further practice in developing expressive/receptive skills including rhythm, speed, and fluency: Study of linguistic aspects of various manual communication systems.

210 INTRODUCTION TO CLINICAL PHONETICS *4 credits*
Prerequisite: 110. Introduction to international phonetic alphabet. Transcribing normal and disordered speech. Overview of articulatory and coustic phonetics. Introduction to distinctive features, phonological processes. Analyzing disordered articulation.

211 INTRODUCTION TO SPEECH SCIENCE *2 credits*
Study of anatomical, physiological and physical principles involved in production, transmission and reception of speech signal.

222 SURVEY OF DEAF CULTURE IN AMERICA *2 credits*
The deaf experience in America including educational, legal, social, and occupational developments.

230 LANGUAGE SCIENCE AND ACQUISITION *3 credits*
Prerequisite: 130 or permission. An introduction to language science and the study of the language acquisition process. The characteristics and explanations of language development will be presented.

240 AURAL REHABILITATION *4 credits*
Prerequisite: 140. Introduction to philosophy and methods of aural rehabilitation for children and adults. Includes methods of speech reading, auditory training, speech conservation, hearing aid use and combined visual and auditory approaches.

241 PRINCIPLES OF AUDIOMETRY *3 credits*
Prerequisite: 140. Introduction to psychoacoustic principles which underlie basic audiometric tests; principles of speech audiometry, masking and impedance audiometry.

250 OBSERVATION AND CLINICAL METHODS *2 credits*
Corequisites: 240 or 321 or 330. Introduction to clinical procedures. Analyses of preparation and structure necessary for successful therapy; observation of therapy in different settings.

321 ARTICULATORY AND PHONOLOGIC DISORDERS *4 credits*
Prerequisites: 110, 210. Study of disorders of articulation/phonology, including normal phonological developments, and assessment and remediation of phonological disorders. Introduction to disorders related to velopharyngeal inadequacy.

322 ORGANIC DISORDERS OF COMMUNICATION *4 credits*
Prerequisites: 110 and 3100:264, or permission of instructor. Surveys communication disorders that accompany acquired neurological impairments and neurodevelopmental syndromes. Introduces neurological and genetic models, classification systems, diagnostic and treatment procedures.

330 LANGUAGE DISORDERS *4 credits*
Prerequisite: 230. Etiology, identification, evaluation, intervention, remediation of symbolic, cognitive, interpersonal language disorders of children. Disorders viewed as correlates or sequelae of central nervous system dysfunction or emotional disturbance.

340 AUDIOLOGIC EVALUATION *2 credits*
Prerequisite: 241. "Test battery" approach to audiometry explored; techniques of case finding and handling of difficult-to-test cases; competency with all tests in the battery required.

350 ENTRANCE PRACTICUM *3 credits*
Prerequisites: 240, 250, 330 and 321. Initial pre-professional experience where student learns clinical procedures for intervention as well as responsibilities for clinic service delivery.

351 SPEECH-LANGUAGE SCREENING PRACTICUM *2 credits*
Prerequisites: 321, 330 and 350. Pre-professional experience where student learns speech-language screening procedures and report preparation for various age groups and disability categories and responsibilities for clinic service delivery.

430/530 ASPECTS OF NORMAL LANGUAGE DEVELOPMENT *3 credits*
(Not open to speech-language pathology and audiology majors) Introduction to acquisition and development of comprehension and production of language phonologically, semantically and syntactically. Relates language acquisition to perceptual development of child and looks at function of language in individual, family and school.

440/540 AUGMENTATIVE COMMUNICATION *3 credits*
Prerequisites: 330 or 430/530 or permission of instructor. Overviews augmentative communication systems—candidates, symbol systems, devices, vocabulary, funding. Considers interdisciplinary issues in assessment/intervention.

445/545 MULTICULTURAL CONSIDERATIONS FOR AUDIOLOGISTS AND SPEECH-LANGUAGE PATHOLOGISTS *2 credits*
Prerequisites: 110 or graduate standing. This course introduces the multicultural considerations faced by audiologists and speech-language pathologists providing services to families and individuals with communication disorders.

450 ASSESSMENT OF COMMUNICATIVE DISORDERS *3 credits*
Prerequisite: senior status; 321, 330 and 350, or permission. Introduction to differential diagnosis of communicative disorders. Emphasizes taking case histories, and administration and interpretation of tests and procedures.

451 AUDIOLOGY SCREENING PRACTICUM *2 credits*
Prerequisites: 240, 340 and 350. Pre-professional experience where student learns audiology screening procedures and report preparation for various age groups and disability categories and responsibilities for clinic service delivery.

460/560 SPEECH-LANGUAGE AND HEARING DISORDERS IN THE PUBLIC SCHOOLS *2 credits*
(Not open to speech-language pathology and audiology major) Nature, causes and treatment of speech, hearing and language disorders in public schools. Special reference to role of classroom teacher in identifying and referring student with suspected problems and in working with school clinician.

461/561 ORGANIZATION AND ADMINISTRATION: PUBLIC SCHOOL SPEECH-LANGUAGE AND HEARING PROGRAMS *2 credits*
Prerequisites: Senior or graduate standing. For clinicians who plan to work in public school systems. Covers program requirements and professional/ethical issues imposed by PL 94-142.

480 SEMINAR IN SPEECH-LANGUAGE PATHOLOGY AND/OR AUDIOLOGY *2 credits*
Prerequisite: senior standing. Provides a vehicle for detailed study and discussion of various communicative disorders.

481 SPECIAL PROJECTS: SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY *1-3 credits*
(May be repeated for a total of four credits) Prerequisite: permission of instructor. Individual or group projects related to any of the problems of communicative disorders.

483/583 COMMUNICATION DISORDERS: GERIATRIC POPULATION *3 credits*
(Not open to speech-language pathology and audiology major) Examination of communication disorders that exist in geriatric population. Focus on etiology, symptomatology and concomitant rehabilitative procedures. Designed for a student interested in the aging population.

485/585 COMMUNICATIVE DISORDERS IN THE DEVELOPMENTALLY DISABLED *4 credits*
Theory and current research related to the etiology, diagnosis and remediation of communicative disorders in intellectually and/or neuromotorically delayed children.

490/590 WORKSHOP: SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY *1-3 credits*
(May be repeated for a total of four credits) Prerequisite: permission. Group investigation of particular phase of speech pathology and/or audiology not offered by other courses.

495 INTERNSHIP: SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY *3-6 credits*
Prerequisite: permission of director of Speech and Hearing Center. Affords opportunity for in-depth clinical experience in variety of clinical settings outside The University of Akron Speech and Hearing Center. On-the-job experience with specialized case populations.

496 SENIOR HONORS PROJECT: SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY *1-3 credits*
(May be repeated for a total of six credits) Prerequisites: enrollment in the Honors Program, senior standing and major in speech-language pathology and audiology.

SOCIAL WORK

7750:

270 POVERTY IN THE UNITED STATES *3 credits*
Survey of social and personal dimensions of life in the inner city and other areas of poverty in United States. For person wishing to develop an in-depth understanding and/or intending to work in such areas.

276 INTRODUCTION TO SOCIAL WELFARE *4 credits*
Survey of field of social welfare; place of social work profession within human services institutions of United States. Introduction of basic concepts relating social welfare institutions and social work to society.

401/501 SOCIAL WORK PRACTICE I *3 credits*
Prerequisite: Social Work major; Corequisite 410. Basic concepts and methods of Generalist social work practice, with an emphasis on understanding and working with individuals.

402/502 SOCIAL WORK PRACTICE II *3 credits*
Prerequisite: 401; Corequisite 410; or permission of instructor. Concepts and methods of social work practice particularly relating to understanding and working with groups in various settings in our society.

403/503 SOCIAL WORK PRACTICE III *3 credits*
Prerequisite: 401 and 410, or permission of instructor. Development of understanding and practice methods for utilization of community organization and social planning as social work process in assessing problems and developing program to meet needs.

404/504 SOCIAL WORK PRACTICE IV *3 credits*
Prerequisite: 401, 410, or permission of instructor. Professional social work practice with families in social services; the dynamics of family systems, assessment of family function and dysfunction, professional helping processes.

410/510 MINORITY ISSUES IN SOCIAL WORK PRACTICE *3 credits*
Prerequisite: Social Work major, Corequisite 401, permission of instructor. Racial, ethnic and cultural issues in social work related to various practice and theoretical perspectives, to various types of social problems, service agencies, individual family, group, community and societal contexts integrated with the methodological processes of the social work practitioners.

411/511 WOMEN'S ISSUES IN SOCIAL WORK PRACTICE *3 credits*
Prerequisite: 401 or permission of instructor. Social work practice, knowledge and skill, social welfare institutions and social policy in relation to women's issues and concerns in the United States.

421 INTRODUCTION TO THE FIELD EXPERIENCE *1 credit*
Prerequisites: 401, 410, and permission of instructor; corequisite: 495. Assists students in making the transition from classroom learning to experiential learning i the field practicum.

422 FIELD EXPERIENCE SEMINAR *1 credit*
Prerequisite: 421 or permission of instructor. Assists students in integrating, synthesizing, and applying classroom knowledge to field experiences and assignments.

425/525 SOCIAL WORK ETHICS *3 credits*
Prerequisite: Social Work major, permission of instructor. Social Worker's code of ethics as applied to practices, problems and issues in social work.

427/627 HUMAN BEHAVIOR AND SOCIAL ENVIRONMENT I *3 credits*
Social work perspective on human development across the life cycle. Human diversity approach consistent with the needs of social work students preparing for practice.

430/530 HUMAN BEHAVIOR AND SOCIAL ENVIRONMENT II *3 credits*
Prerequisite: Social Work major, 427, or permission of instructor. Examination of larger social systems including families, groups, neighborhoods, and organizations. Focuses on the unique systemic characteristics of each system and its development.

440/540 SOCIAL WORK RESEARCH I *3 credits*
Prerequisites: Social Work major or permission of instructor. Overview of scientific inquiry and the research process as it applies to the field of social work. Emphasis is placed on the various social worker roles in relation to research.

441/541 SOCIAL WORK RESEARCH II *3 credits*
Prerequisite: 440 or permission of instructor. A continuation of Social Work Research I with a focus on applying research concepts. Includes content on the evaluation of practice outcomes and the use of computers in data analysis.

445/545 SOCIAL POLICY ANALYSIS FOR SOCIAL WORKERS *3 credits*
Prerequisite: Social Work major, permission of instructor. Description, analysis and construction of social policy in social services; to understanding forces and processes which establish or change social policies, to predict consequences of social policies and to establish goals for social policy development; integrated into effective social work methodology.

450/550 SOCIAL NEEDS AND SERVICES: AGING *3 credits*
Prerequisite: 401 or permission of instructor. Application of knowledge and principles of professional social work practice to understanding, development and provision of social services to meet needs of aging and later mature individuals, families and communities and institutions serving them and their relatives.

451/551 SOCIAL WORK IN CHILD WELFARE *3 credits*
Prerequisite: 401 or permission of instructor. In-depth exploration of structure and functioning of social services designed to help children, and of practice of social work in child-welfare settings. Consideration of supportive, supplementary and substitutive services.

452/552 SOCIAL WORK IN MENTAL HEALTH *3 credits*
Prerequisite: 401 or permission of instructor. Issues, organization, development and methodologies of current professional social work practice in mental-health settings.

454/554 SOCIAL WORK IN JUVENILE JUSTICE *3 credits*
Prerequisite: 401 or permission of instructor. The theory and practice of social work in the juvenile justice systems of the United States. Traditional procedures and recent developments, prevention, diversion and community outreach, legal concerns, case management, institutional functioning.

455/555 BLACK FAMILY ISSUES *3 credits*
Prerequisite: 401 or permission of instructor. Contemporary problems facing black families; male-female relationships, single parent households, black teens and elderly, public policy, theoretical models, explaining development of the black family.

456/556 SOCIAL WORK IN HEALTH SERVICES *3 credits*
Prerequisite: 401 or permission of instructor. Policies, programs and practice in health-care settings: short-term, intermediate and long-term hospitals, out-patient services, emergency services, clinics, visiting nurse services, nursing homes, pediatric services, self-help organizations.

457/557 ADVANCED PRACTICE WITH INDIVIDUALS *3 credits*
Prerequisite: 401 or permission of instructor. Advanced professional development of direct and indirect strategies and techniques of intervention to aid individuals in improving psychosocial functioning.

458/558 ADULT DAY CARE *3 credits*
Prerequisite: 401 or permission of instructor. Planning, development, implementing, evaluating and delivery of adult day-care services.

459/559 SOCIAL WORK WITH THE MENTALLY RETARDED *3 credits*
Prerequisite: 401 or permission of instructor. Application of social work principles in the provision of social services to meet the needs of the mentally retarded and developmentally disabled and their families.

465/565 ADMINISTRATION AND SUPERVISION IN SOCIAL WORK *3 credits*
Prerequisite: 401 or permission of instructor. Preparation for use of supervision, staff development, and program planning in a social work agency. Examines the social work/welfare agency in its community as it affects its organizational goal-setting and program-implementation problems.

470/570 LAW FOR SOCIAL WORKERS *3 credits*
Prerequisite: 401 or permission of instructor. Basic terminology, theories, principles, organization and procedures of law will be explored along with the relationships between social work and law and comparisons of the theoretical bases of the two professions.

475/575 SUBSTANCE ABUSE AND SOCIAL WORK PRACTICE *3 credits*
Prerequisites: 401 or permission of instructor. Provides students with the essential knowledge and skill for successful social work practice with people involved in substance abuse.

480/580 SPECIAL TOPICS IN SOCIAL WORK AND SOCIAL WELFARE *1-3 credits*
Prerequisite: permission of instructor. Analysis of current social work and social welfare theory and policy, settings, innovative interventions, and trends in delivery systems in relation to selected areas of concern. Topics and credits variable.

490/590 SOCIAL WORK WORKSHOP *1-4 credits*
(May be repeated for a total of six credits) Prerequisite: permission of instructor. Group investigation of a particular phase of social work or social welfare not offered by other courses in curriculum.

495 FIELD EXPERIENCE IN SOCIAL AGENCY *8 credits*
(Total in consecutive semesters only) Prerequisites: 401, 410, 427, and permission of instructor; corequisites: 421 and 422 in consecutive semesters. Individual placement in selected community and social service agencies for supervised experience with individuals, groups and communities in family service, health care, corrections, community development, mental health, child welfare, public welfare and similar social welfare settings. Student must register intent and receive permission to take the course with the Field Coordinator during early part of semester preceding enrollment. For senior majors in social work.

497/597 INDIVIDUAL INVESTIGATION IN SOCIAL WORK *1-3 credits*
Prerequisites: permission and prearrangement with instructor. Individual readings, research or projects in area of interest in social welfare theory or institutional operations or in social work practice under guidance of social work faculty member. Preparation of report paper appropriate to nature of topic. For social work major.

499 SENIOR HONORS PROJECT IN SOCIAL WORK *1-3 credits*
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors Program and approval of honors preceptor in department. Open only to social work major enrolled in Honors Program. Independent study leading to completion of senior honors thesis or other original work resulting in writing of research paper in proper scholarly form, supervised by student's honors project adviser within the department.

THEATRE

7800:

100 EXPERIENCING THEATRE *3 credits*
Experience the theatre as a live, dynamic art form through an exposure to and participation in University productions.

106 INTRODUCTION TO SCENIC DESIGN *3 credits*
Introduction to the theory of scenic design and imagery. The course may include the application of these principles to other media.

107 INTRODUCTION TO STAGE COSTUMING *3 credits*
Introduction to basic costume construction techniques, organization and maintenance of wardrobe for theatrical performance. Lab required.

145 MOVEMENT TRAINING *3 credits*
Specialized physical training for the actor.

151 VOICE AND DICTION *3 credits*
Speech improvement as it specifically applies to the stage. This course is concerned with the proper techniques and principles of vocal production in their practical application to stage performance.

172 ACTING I *3 credits*
Introductory fundamentals of acting through the investigation of the body as an instrument for the stage, improvisation and basic scene study.

205 THEATRE ORGANIZATION AND PRODUCTION MANAGEMENT *3 credits*
Study of successful methods of theatre organization and production stage management of professional and non-professional performing arts operations.

230 HISTORY OF THE THEATRE *3 credits*
Prerequisite: 100 or permission of instructor. Theatre history from the Greeks to the present with the emphasis on the physical theatre, stage conventions, and theatre architecture of each period.

262 STAGE MAKEUP *3 credits*
Theory and practice in the application of stage makeup from juvenile to character. Lecture/Lab.

263 SCENE PAINTING *3 credits*
The development of skills and knowledge of stage scenic painting required for the theatre designer and technician. Laboratory required.

265 BASIC STAGECRAFT *3 credits*
Basic stagecraft including equipment, construction and handling of two-dimensional scenery and theatrical hardware. Laboratory required.

271 DIRECTING I *3 credits*
Prerequisites: 100 and 172 or permission of instructor. Emphasizes fundamentals of play directing, including responsibilities of director, stage nomenclature, play selection, character analysis and rehearsals. One-act form emphasized.

301 INTRODUCTION TO THEATRE AND FILM *3 credits*
Prerequisite: 3400:210. A survey of creative development in theatre and film. It will cover American and international developments through lecture and viewing of films. For non-majors.

307 ADVANCED STAGE COSTUMING *3 credits*
Prerequisite: 107. Specialized construction techniques for costumes, armor, masks, jewelry, millinery, and footwear.

321 MUSICAL THEATRE HISTORY II *2 credits*
Concentrating on the twentieth century, musicals from each decade will be examined for emerging trends and styles in music, dance, theatre and libretti.

330 DRAMATIC LITERATURE I *3 credits*
Prerequisites: 230 or permission of instructor. An in-depth exploration of stage plays from the Classical Greek period to 1800, with emphasis on the relationship of plays to various cultures.

333 SUMMER THEATRE *3 credits*
Prerequisites: Permission of instructor/audition. Practical laboratory experiences in one or more disciplines during the summer session doing production and/or management work. Permission only. (Repeatable to 12 credits.)

351 ADVANCED VOICE AND MOVEMENT *credit*
Prerequisites: 145, 151. Advanced training in movement techniques and vocal work, integrating the performer's physical and vocal instrument.

355 STAGE LIGHTING DESIGN *3 credits*
The art and technique of stage lighting design: light plotting, color theory, and optical effects.

371 DIRECTING II *3 credits*
Prerequisites: 271 and permission. Advanced course in practical techniques of staging plays from major theatrical periods as well as principles of working with the actor.

373 ACTING II *3 credits*
Prerequisite: 172. Continuation of 172. Further emphasis on the psychology of the actor and development of performing techniques through scene study.

374 ACTING III *3 credits*
Prerequisite: 373. Further in-depth actor training with emphasis on the language and interpretation of classic plays including Shakespeare.

403 SPECIAL TOPICS IN THEATRE ARTS *1-4 credits*
(May be repeated as different subject areas are covered, but no more than 10 credits may be applied toward B.A. degree) Prerequisite: permission. Traditional and nontraditional topics in theatre arts, supplementing courses listed in the General Bulletin.

421 MUSICAL THEATRE PRODUCTION *3 credits*
Designed to make the theatre student aware of the total creative process involved in mounting a stage musical.

430 DRAMATIC LITERATURE II *3 credits*
Prerequisite: 330 or permission of instructor. An in-depth exploration of stage plays from the 19th Century to modern times with an emphasis on the relationship of plays to various cultures.

436 STYLES OF SCENIC DESIGN *3 credits*
Prerequisite: 365. Theatrical styles and periods in scenic design and scenography.

467/567 CONTEMPORARY THEATRE STYLES *3 credits*
A detailed examination of representative plays of the contemporary theatre with an emphasis on plays of the 1980s and 1990s.

480 INDEPENDENT STUDY *1-3 credits*
Practice, study, and/or research in selected elements of theatre arts and production including preparation and presentation of creative and technological projects..

475/575 ACTING FOR THE MUSICAL THEATRE *3 credits*
Prerequisites: permission of instructor. A scene study course in analyzing and performing roles in American musicals. Accompanist provided.

490/590 WORKSHOP IN THEATRE ARTS *1-3 credits*
(May be repeated for a total of eight credits) Prerequisite: advanced standing or permission. Group study or group projects investigating particular phases of theatre arts not covered by other courses in curriculum.

THEATRE ORGANIZATIONS

7810:

100 PRODUCTION LABORATORY-DESIGN/TECHNOLOGY‡* *1 credit*
Prerequisite: permission of instructor. (May be repeated for a total of 12 credits) Provides student with practical experience in technical aspects of theatre.

110 PERFORMANCE LABORATORY* *1 credit*
(May be repeated for a total of 12 credits) Prerequisites: permission of instructor. Provides student with practical performance experience theatre productions.

200 PRODUCTION LABORATORY-DESIGN/TECHNOLOGY‡* *1 credit*
Prerequisite: permission of instructor. (May be repeated for a total of 12 credits) Provides student with practical experience in technical aspects of theatre.

210 PERFORMANCE LABORATORY* *1 credit*
(May be repeated for a total of 12 credits) Prerequisites: permission of instructor. Provides student with practical performance experience in theatre productions.

300 PRODUCTION LABORATORY-DESIGN/TECHNOLOGY‡* *1 credit*
Prerequisite: permission of instructor. (May be repeated for a total of 12 credits) Provides student with practical experience in technical aspects of theatre.

310 PERFORMANCE LABORATORY* *1 credit*
(May be repeated for a total of 12 credits) Prerequisites: permission of instructor. Provides student with practical performance experience in theatre productions.

400 PRODUCTION LABORATORY-DESIGN/TECHNOLOGY‡* *1 credit*
Prerequisite: permission of instructor. (May be repeated for a total of 12 credits) Provides student with practical experience in technical aspects of theatre.

410 PERFORMANCE LABORATORY* *1 credit*
(May be repeated for a total of 12 credits) Prerequisite: permission of instructor. Provides student with practical performance experience in theatre productions.

* Required of all theatre majors.

‡ Majors are required to enroll in at least one credit production lab every semester they are in residence.

DANCE

7900:

115 DANCE AS AN ART FORM *2 credits*
Survey of dance for novice observer: aesthetics, philosophies, methods of training. Lecture and discussion of readings, viewing of film, videotape and live performances.

119 MODERN I: INTRODUCTION TO MODERN DANCE I *2 credits*
(May be repeated for a total of four credits) Exploring the basic principles of modern dance with an emphasis on body alignment and muscular awareness.

120 MODERN II: INTRODUCTION TO MODERN DANCE II *2 credits*
(May be repeated for a total of four credits) Prerequisite: permission. Continuation of 119. Increasing movement vocabulary, muscular strength and coordination of modern dance.

124 BALLET I: INTRODUCTION TO BALLET I *2 credits*
(May be repeated for a total of four credits) Emphasis on body placement, muscular awareness.

125 BALLET II: INTRODUCTION TO BALLET II *2 credits*
(May be repeated for a total of four credits) Prerequisite: permission. Continuation of 124. Basic exercises of classical ballet.

130 JAZZ DANCE I: INTRODUCTION TO JAZZ DANCE I *2 credits*
Basic jazz dance technique and jazz dance origins.

144 TAP TECHNIQUE I: INTRODUCTION TO TAP I *2 credits*
Basic tap dance technique and terminology.

145 BEGINNING TAP STYLES *2 credits*
Prerequisite: 7900:144 or permission. Refinement of Tap technique and stylistic range of Tap dance.

200 VIEWING DANCE *3 credits*
Prerequisite: 3400:210. To explore dance as an art form through experiential activities, dance literature, film and live performance for non-dance majors.

219 MODERN III: INTERMEDIATE BEGINNER A *2 credits*
(May be repeated for a total of four credits) Prerequisite: Permission. Continuation of 120. Introduction to current modern dance styles and techniques.

220 MODERN IV: INTERMEDIATE BEGINNER B *2 credits*
(May be repeated for a total of four credits.) Prerequisite: Permission. Continuation of 219. Application of basic modern dance theory of current modern dance styles and techniques.

224 BALLET III: INTERMEDIATE BEGINNER A *3 credits*
(May be repeated for a total of six credits) Prerequisite: Permission. Continuation of 125. Emphasis on barre and developing strength.

225 BALLET IV: INTERMEDIATE BEGINNER B *3 credits*
(May be repeated for a total of six credits) Prerequisite: 7900:224 or permission. Continuation of 224. Emphasis on the increase of strength and flexibility.

230 JAZZ DANCE II: INTRODUCTION TO JAZZ DANCE II *2 credits*
Prerequisite: 130. Continuation of basic jazz technique and stylistic range of jazz dance.

403 SPECIAL TOPICS IN DANCE *1-4 credits*
(May be repeated as different subject areas are covered, but no more than 10 credits may be applied toward B.A. degree) Prerequisite: Permission. Traditional and non-traditional topics in dance, supplementing courses listed in General Bulletin.

490/590 WORKSHOP IN DANCE *1-3 credits*
(May be repeated for a total of eight credits) Prerequisite: Advanced standing or permission. Group study or group projects investigating particular phase of dance not covered by other courses in curriculum.

DANCE ORGANIZATIONS

7910:

101 CLASSICAL BALLET ENSEMBLE** *1 credit*
By audition only. Participation in rehearsal and preparation for public performance of classical ballet repertoire.

102 CHARACTER BALLET ENSEMBLE** *1 credit*
By audition only. Participation in rehearsal and preparation for public performance of character ballet repertoire.

103 CONTEMPORARY DANCE ENSEMBLE** *1 credit*
By audition only. Participation in rehearsal and preparation for public performance of contemporary dance repertoire.

104 JAZZ DANCE ENSEMBLE** *1 credit*
By audition only. Participation in rehearsal and preparation for public performance of jazz dance repertoire.

105 MUSICAL COMEDY ENSEMBLE** *1 credit*
By audition only. Participation in rehearsal and preparation for public performance of dance production numbers in a musical comedy.

106 OPERA DANCE ENSEMBLE** *1 credit*
By audition only. Participation in rehearsal and preparation for public performance of dance sequences in an opera.

107 EXPERIMENTAL DANCE ENSEMBLE** *1 credit*
By audition only. Participation in rehearsal and preparation for public performance of avant-garde dances.

** Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only.

108 CHOREOGRAPHER'S WORKSHOP** *1 credit*
By audition only. Participation in rehearsal and preparation for public performance of student dances.

109 ETHNIC DANCE ENSEMBLE** *1 credit*
By audition only. Participation in rehearsal and preparation for public performance of ethnic dance repertoire.

110 PERIOD DANCE ENSEMBLE** *1 credit*
By audition only. Participation in rehearsal and preparation for public performance of dances from specific historical periods such as the Renaissance or Baroque eras.

111 TOURING ENSEMBLE** *1 credit*
By audition only. Participation in rehearsal and preparation for public performance of any dances prepared for touring purposes.

112 DANCE PRODUCTION ENSEMBLE** *1 credit*
By permission only. Participation in technical assistance, preparation and performance of student dance productions: theory and laboratory.

200 SOPHOMORE JURY *0 credits*
Prerequisite: Sophomore standing. The passing of the Sophomore Jury is a degree requirement. It may not be taken more than twice. Offered on a credit/noncredit basis.

DANCE PERFORMANCE 7920:

116 PHYSICAL ANALYSIS FOR DANCE I *2 credits*
Required for all dance majors. Recommended to be taken in first two years. Lecture/laboratory. Skeletal and muscular analysis for dance technique.

117 PHYSICAL ANALYSIS FOR DANCE II *2 credits*
Prerequisite: 116. Support systems, conditioning injury prevention, rehabilitation, nutrition for dancers.

122 BALLET V: INTERMEDIATE PRINCIPLES *5 credits*
(May be repeated for a total of 20 credits) Prerequisite: Permission. Theory, vocabulary, structure, placement. Concurrent enrollment in pointe class recommended.

141 POINTE I *2 credits*
(May be repeated for a total of eight credits) Prerequisite: Permission. Reinforcement of selection principles for pointe shoes, proper holding of foot muscularly and control of heel while ascending and descending from pointe.

222 BALLET VI: ADVANCED INTERMEDIATE TECHNIQUE *5 credits*
(May be repeated for a total of 20 credits) Prerequisite: permission. Continuation of 122, expanding theory on vocabulary, structure, placement. Concurrent enrollment in pointe class recommended.

228 MODERN V: INTERMEDIATE MODERN DANCE A *3 credits*
(May be repeated for a total of six credits) Prerequisite: Permission. The intermediate study of modern dance styles and techniques through the application of more complex movement theories, rhythmic patterns and improvisational studies.

229 MODERN VI: INTERMEDIATE MODERN DANCE B *3 credits*
(May be repeated for a total of six credits) Prerequisite: Permission. Introduction to intermediate theory of current modern dance styles and techniques.

241 POINTE II *2 credits*
(May be repeated for a total of 12 credits) Prerequisite: Permission. Continuation of 141. Continued development of strength, coordination and endurance of holding foot muscularly. Further development and emphasis on principles of weight transfer.

246 INTERMEDIATE TAP STYLES *2 credits*
Prerequisite: 145 or permission. Advancement of Tap dance technique through the use of complex combinations, syncopation, routines, and styles.

270 MUSICAL THEATRE DANCE TECHNIQUES *3 credits*
Prerequisites: 7900:119, 7900:124, 7900:130, 7900:144, 7900:230; or permission. Precision, line and vernacular dance; couple and solo dance work for musical theatre.

316 CHOREOGRAPHY I *2 credits*
Prerequisite: Permission of the instructor. Theoretical and practical introduction to principles of choreography: space, time, energy.

317 CHOREOGRAPHY II *2 credits*
Prerequisite: 316 and permission. Continuation of 316. Emphasis on musical choices and find ing movement specific to the individual choreographer.

320 DANCE NOTATION *2 credits*
Beginning study of Labanotation method of recording movement, and Laban's theories of effort, space, and shape.

321 RHYTHMIC ANALYSIS FOR DANCE *2 credits*
By permission only. Not open to new freshmen. Lecture and application of basic rhythmic structures used in dance and dance instruction.

322 BALLET VII: PRINCIPLES OF ADVANCED TECHNIQUE *5 credits*
(May be repeated for a total of 30 credits) Prerequisite: permission. Continuation of 222. Emphasis on technique, style, line. Concurrent enrollment in pointe class recommended.

328 MODERN VII: ADVANCED MODERN DANCE A *3 credits*
(May be repeated for a total of six credits) Prerequisite: permission from instructor. Refinement and and stylization of modern techniques for performance for modern dance.

329 MODERN VIII: ADVANCED MODERN DANCE B *3 credits*
(May be repeated for a total of six credits) Prerequisite: permission. Application of advanced modern dance technique and styles..

334 PAS DE DEUX I *2 credits*
(May be repeated for a total of eight credits) Prerequisites: permission; concurrent enrollment in a pointe class recommended. Provides student with the beginning understanding and practice of pas de deux.

341 POINTE III *2 credits*
(May be repeated for a total of 16 credits) Prerequisite: permission. Continuation of 241. Advancement, development and application of principles of classical ballet technique through work on small variations, codas, enchainements and tour de force exercises.

342 MEN'S CLASS *2 credits*
(May be repeated for a total of eight credits.) Prerequisites: 122, permission. A classical ballet class focusing on tour de force and virtuoso movements specific to the male dancer.

347 ADVANCED TAP STYLES *2 credits*
Prerequisite: 7920:246 or permission. Advanced tap combinations, styles, routines.

351 JAZZ DANCE STYLES *2 credits*
Prerequisite: 7900:130 or placement audition. Intermediate jazz dance technique and the jazz eras.

361 LEARNING THEORY FOR DANCE *2 credits*
Prerequisites: 7900:115, 224; 3750:100 or permission of instructor. Theories of learning and their use in teaching dance.

362 INSTRUCTIONAL STRATEGIES FOR DANCE *2 credits*
Prerequisite: 361. Practical work and development of teaching skills in dance for public and private settings.

403 SPECIAL TOPICS IN DANCE *1-4 credits*
(May be repeated. No more than 10 credits may be applied toward the B.F.A. or B.A.) Prerequisite: Permission. Traditional and nontraditional topics in dance.

416 CHOREOGRAPHY III *2 credits*
Prerequisite: 317, permission. Continuation of 317. Emphasis on form and choreographic analysis.

417 CHOREOGRAPHY IV *2 credits*
Prerequisite: 416 and permission. Continuation of 416. Expanding into group choreography and longer works.

422 BALLET VIII: ADVANCED TECHNIQUE AND PERFORMANCE STYLES *5 credits*
(May be repeated for a total of 40 credits) Prerequisite: Permission. Continuation of 322. Advanced level of technique. Concurrent enrollment in pointe class recommended.

430 HISTORY OF MUSICAL THEATRE IN DANCE *2 credits*
Prerequisite: 7900:115. Focus on dance styles and choreographers in Musical Theatre from a historical perspective.

431 DANCE HISTORY: PREHISTORY TO 1661 *2 credits*
Prerequisite: 115 or permission. Study of important developments from prehistory through the Renaissance to the founding of the French Academy of Dance.

432 DANCE HISTORY: 1661 THROUGH DIAGHILEV ERA *2 credits*
Prerequisite: 115 or permission. Development of dance beginning with the establishment of the French Academy through the Romantic and Diaghilev Eras and their influence on current dance.

433 DANCE HISTORY: 20th CENTURY *2 credits*
Prerequisite: 115 or permission. Development of modern dance as an art form and the further evolution of ballet and concert dance.

434 PAS DE DEUX II *2 credits*
(May be repeated for a total of six credits) Prerequisites: 334, permission; concurrent enrollment in a pointe class. Provides the student with advanced understanding and practice of pas de deux.

451 ADVANCED JAZZ DANCE STYLES *2 credits*
Prerequisite: 351 or placement audition. Advanced jazz dance technique and styles for the professional dancer.

461 SEMINAR AND FIELD EXPERIENCE IN DANCE EDUCATION *2 credits*
Prerequisite: 362. Supervised observation and teaching experience in dance education in the field. Concurrent enrollment in 7910:108 Choreographers' Workshop.

462 PROFESSIONAL ISSUES IN DANCE EDUCATION *2 credits*
Prerequisite: 461. An examination of current issues and goals in dance education. Concurrent enrollment in 7910:108 Choreographers' Workshop.

471 SENIOR SEMINAR *1 credit*
Prerequisite: upper class standing and permission. A forum to develop professional skills to make the transition to a dance career: artistic, academic, or business.

490/590 WORKSHOP IN DANCE *1-3 credits*
(May be repeated for a total of eight credits) Prerequisite: Advanced standing or permission. Group study/projects investigating a particular field of dance not covered by other courses.

497 INDEPENDENT STUDY IN DANCE *1-3 credits*
(May be repeated for a total of four credits) Prerequisite: Permission and prearrangement with instructor. Individual creative project, research or readings in dance with faculty advisor.

498 SENIOR HONORS PROJECT IN DANCE *1-3 credits*
(May be repeated for a total of six credits.) Prerequisites: Senior standing in Honors Program and approval of department preceptor. Creative project or research supervised by dance preceptor.

** Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only.

College of Nursing

COOPERATIVE EDUCATION

8000:

301 COOPERATIVE EDUCATION *0 credits*
(May be repeated). For cooperative education students only. Work experience in business, industry, or governmental agency. Comprehensive performance evaluation and written report required.

NURSING

8200:

100 INTRODUCTION TO NURSING *1 credit*
Introduces students to influences of past, present, and future political, legal, social, and cultural processes on the nursing profession and the roles of nurses.

101 INTRODUCTION TO BACCALAUREATE NURSING *1 credit*
Prerequisite: Licensed Practical Nurse. Introduces L.P.N./B.S.N. students to the purposes of baccalaureate nursing education. Explores philosophy, nursing theories, research, emerging roles, decision making, and the health care system.

205 COLLEGE OF NURSING ORIENTATION *1 credit*
Prerequisite: Admission to the College. Presentation of test-taking, time/stress management, college policies, financial aid, learning resources, preparing papers, programs of study, study/support groups, academic advisement, and computer skills.

210 BASIC CONCEPTS OF NURSING *4 credits*
Prerequisite: Admission to the College. Clinical course on the basic theories and concepts that novice nursing students need in order to care for healthy clients across the life span.

215 PROFESSIONAL ROLE DEVELOPMENT *2 credits*
Prerequisite: Admission to the College. Fosters the development of the professional role of the nurse in novice students as they begin nursing practice.

220 FOUNDATIONS OF NURSING PRACTICE *5 credits*
Prerequisite: Admission to the College. Clinical course which assists students to perform psychosocial and psychomotor skills with long-term care clients.

225 HEALTH ASSESSMENT *3 credits*
Prerequisite: Admission to the College. The skills of taking health histories and performance of basic physical assessment. Supervised practice in the Learning Resource Center.

315 PATHOPHYSIOLOGY FOR NURSES *3 credits*
Prerequisite: Satisfactory completion of Sophomore level nursing courses. Develop understanding of basic concepts related to pathophysiologic mechanism of health, illness as applied to nursing. Emphasis on application to nursing using the nursing process.

325 CULTURAL DIMENSIONS OF NURSING *2 credits*
Prerequisites: Satisfactory completion of all required Sophomore level nursing courses. Nursing care of clients of diverse ethnicities is emphasized. Special attention is given to selected ethnic groups' communication patterns, spirituality, health beliefs and practices.

330 NURSING PHARMACOLOGY *3 credits*
Prerequisite: Satisfactory completion of Sophomore level nursing courses. Emphasis on fundamental concepts of pharmacology as applied to major drug classes, actions, and effects. Application of nursing process to drug therapy across life span.

336 CONCEPTS OF PROFESSIONAL NURSING *4 credits*
Prerequisite: Admission to the RN/BSN sequence. Introduces the RN to baccalaureate nursing. Focuses on the relationship of concepts and theories to the role of the professional nurse. Offered Summer only.

350 NURSING OF THE CHILDBEARING FAMILY *5 credits*
Prerequisite: Satisfactory completion of Sophomore level nursing courses. A theoretical and clinical basis for care of the childbearing family in varying degrees of health and in a variety of settings.

360 NURSING CARE OF ADULTS *5 credits*
Prerequisite: Satisfactory completion of Sophomore level nursing courses. Acute nursing care of adults with nutrition, elimination, metabolic, sexual, reproductive, and immunological concerns. Includes theory and practice at the advanced beginner level.

370 NURSING CARE OF OLDER ADULTS *5 credits*
Prerequisite: Satisfactory completion of Sophomore level nursing courses. Acute nursing care of older adults with mobility, perception, circulation, and oxygenation concerns. Includes theory and practice at the advanced beginner level.

380 MENTAL HEALTH NURSING *5 credits*
Prerequisite: Satisfactory completion of Sophomore level nursing courses. Assists students in developing knowledge and skills for providing care to individuals with mental health needs in a variety of settings.

405 NURSING CARE OF HEALTHY INDIVIDUALS *5 credits*
Prerequisite: 336. Clinical course focusing on health care concepts across the life span with emphasis on health promotion.

409 INTERNATIONAL NURSING *3 credits*
Prerequisite: Junior standing or Registered Nurse. Summer Elective course. A comparison of nursing in the Norwegian and American health care systems including educational, ethical, legal, political, demographic, and geographic influences on health care.

410 NURSING OF FAMILIES WITH CHILDREN *5 credits*
Prerequisite: Satisfactory completion of Junior level nursing courses. Theoretical and clinical nursing course focused on the child within a family context. Health problems of both acute and chronic nature are explored.

415 NURSING OF INDIVIDUALS WITH COMPLEX HEALTH PROBLEMS *5 credits*
Prerequisites: 405, 440. Introduces the RN/BSN student to patients and families with multiple health care needs. Focuses on critical and complex patient care situations.

430 NURSING IN COMPLEX AND CRITICAL SITUATIONS *3 credits*
Prerequisite: Satisfactory completion of all Junior level nursing courses. Introduces advanced beginners to the complexity of nursing care in acute complex and critical situations of patients with multi-system failures.

435 NURSING RESEARCH *3 credits*
Prerequisite: Satisfactory completion of all Junior level nursing courses. Exploration of the effects of nursing research on the profession, become a knowledgeable consumer of research.

440 NURSING OF COMMUNITIES *5 credits*
Prerequisite: Satisfactory completion of all Junior level nursing courses. A synthesis of nursing skills applied among various community populations. Health and illness care strategies within diverse health care systems to promote the health of groups.

445 NURSING LEADERSHIP FOR CLIENT CARE *2 credits*
Prerequisite: Satisfactory completion of all Junior level nursing courses. Leadership and management concepts within the dynamic health care setting. Classical and contemporary approaches are explored with application in senior nursing courses.

446 PROFESSIONAL NURSING LEADERSHIP *5 credits*
Prerequisite: 405, 440. Provides the RN/BSN student with the theoretical foundation for leadership and management in a dynamic health care setting. Contemporary and classical approaches will be explored.

450 SENIOR NURSING PRACTICUM *3 credits*
Prerequisite: Satisfactory completion of all Junior level nursing courses. In-depth clinical nursing experiences with professional nurse preceptors in student-selected health care settings. An individualized learning contract will be developed.

455 PROFESSIONAL ISSUES *2 credits*
Prerequisite: Satisfactory completion of all Junior level courses. Exploration of facts, values, beliefs and ethics related to professional issues affecting the practice of nursing and role transition from student to professional.

460 ISSUES AND ROLES OF THE PROFESSION OF NURSING *3 credits*
Prerequisite: Admission to RN/MSN sequence. The focus of the course is to relate role theory to personal and professional life. Issues affecting the nursing profession and delivery of nursing care are addressed.

465 CONCEPTS AND THEORIES OF PROFESSIONAL NURSING *3 credits*
Prerequisite: Admission to the RN/MSN Sequence. Selected concepts and theories relevant to professional nursing are studied and related to nursing practice. Critical thinking strategies are utilized to examine nursing theories and concepts.

470 COMMUNITY HEALTH NURSING *4 credits*
Prerequisite: 460, 465. Explores selected concepts and issues relevant to community health nursing. The effects of legal, ethical, economic, and political issues on community health nursing are discussed.

480 SENIOR HONORS PROJECT *1-3 credits*
Prerequisites: Senior standing in Honors Program and nursing major. Completion and presentation of an original investigation of a significant topic or creative work which must meet high standards of scholarship.

485 LEADERSHIP AND MANAGEMENT ROLES IN PROFESSIONAL NURSING *5 credits*
Prerequisites: 460, 465, 470. Focuses on advanced role transition as it relates to the resocialization process of professional nurses. Relates the resocialization of the nurse to leadership and management roles.

489/589 SPECIAL TOPICS: NURSING *1-4 credits*
(May be repeated as new topics are presented) Group studies of special topics in nursing. May not be used to meet requirements for the major in nursing. May be used for elective credit.

493/593 WORKSHOPS *1-4 credits*
(May be repeated as new topics are presented) Selected topics in nursing. May be used to meet undergraduate or graduate major requirements at the discretion of the college.

497 INDEPENDENT STUDY *1-3 credits*
Prerequisite: permission of Associate Dean, Undergraduate Programs and good academic standing. Provides opportunity to develop greater depth in an area of nursing through methodology specific to discipline of nursing.

College of Polymer Science and Polymer Engineering

INTERDISCIPLINARY COURSES:

POLYMER SCIENCE AND POLYMER ENGINEERING

9821:

281 POLYMER SCIENCE FOR ENGINEERS *2 Credits*
Prerequisites: 3150:151 and 152. Chemical bonds and structure of organic molecules, polymer chain structure, amorphous and crystalline morphology and structural characterization, polymerization and copolymerization, experimental demonstrations, typical solid-state and flow properties.

381 POLYMER MORPHOLOGY FOR ENGINEERS *3 Credits*
Prerequisites: 281, 3150:151, 3650:292. Fundamental understanding of solid structure, crystallography and morphology, processed polymers, co-polymers and their blends.

POLYMER ENGINEERING

9841:

321 POLYMER FLUID MECHANICS *3 Credits*
Prerequisite: 4600:310 or equivalent. Rheological properties and flow characteristics of polymer fluid systems; non-Newtonian viscosity, viscoelasticity.

422 POLYMER PROCESSING *3 Credits*
Prerequisites: 321 and 4600:315 or equivalent. Polymer processing technology. Basic studies of flow in extrusion, molding, and other processing methods.

425 INTRODUCTION TO BLENDING AND COMPOUNDING OF POLYMERS *3 credits*
Prerequisites: 4200:321 or 4300:341 or 4600:310 or permission. Nature of polymer blends and compounds and their applications. Preparation and technology using batch and continuous mixers, mixing mechanisms.

427 MOLD DESIGN *3 credits*
Prerequisites: 422 or 4300:341 or 4600:310 or permission. Molding methods to manufacture polymeric products. Machinery, materials, molds, equipment, computer-aided design.

450 ENGINEERING PROPERTIES OF POLYMERS *3 credits*
Prerequisites: 4600:315, 336 and 380 or permission. Introductory course to engineering properties and processing of polymers. Analysis of mechanical tests of polymers in the glassy, rubbery, and fluid states. Product design. Concepts of rheology, rheometry and polymer processing.

451 POLYMER ENGINEERING LABORATORY *2 Credits*
Prerequisite: 321 and 4600:485. Corequisite: 422. Laboratory experiments on the rheological characterization of polymer melts, fabrication of engineering products, structural investigation of polymeric parts.

497 SPECIAL TOPICS IN POLYMER ENGINEERING *2 credits*
Prerequisite: Senior standing, permission of instructor. Special topics intended for undergraduate seniors in polymer engineering.

499 POLYMER ENGINEERING PROJECT *1-3 credits*
Prerequisite: permission. Individual research project pertinent to polymer engineering under faculty supervision.

POLYMER SCIENCE

9871:

130 POLYMER MATERIAL SCIENCE *3 credits*
A polymer science lecture (with demonstrations) for non-science majors, with optional accompanying one-credit laboratory (9871:131).

131 POLYMER MATERIAL SCIENCE LABORATORY *1 credit*
Co-requisite: 130. A polymer science laboratory course which illustrates topics covered in 9871:130 Polymer Material Science.

303 SPECIAL PROJECTS IN POLYMER SCIENCE *1-2 credits*
Prerequisite: 302. Research projects of a limited scope for student desiring experience with a professor working in a specific field. The course would be designed to give the student the processes involved in outlining projects, setting up equipment, collecting and recording research data in a scientific manner.

401 INTRODUCTION TO ELASTOMERS *3 credits*
Prerequisites: physical chemistry (or equivalent) or permission. An introduction to the science and technology of elastomeric materials. Lecture and laboratory.

402 INTRODUCTION TO PLASTICS *3 credits*
Prerequisite: 401. An introduction to the science and technology of plastic materials. Lecture and laboratory.

407 POLYMER SCIENCE *4 credits*
Prerequisite: 3150:314 or 3650:301 or permission. Principles of polymerization processes and relationships between molecular structures and physical behavior of polymers. Molecular weight distributions of macromolecules discussed and methods of determining molecular weights utilized.

411/511 MOLECULAR STRUCTURE AND PHYSICAL PROPERTIES OF POLYMERS I *3 credits*
Prerequisite: 301 or 302 or permission. Interdisciplinary course involving the principles of chemistry and physics are brought to bear on relationships between molecular structure and chemical composition of macromolecules and their physical properties.

412/512 MOLECULAR STRUCTURE AND PHYSICAL PROPERTIES OF POLYMERS II *2 credits*
Prerequisite: 411/511 or permission. Mechanical characterization of polymeric materials, the Boltzmann superposition principle and fracture. Experimental techniques involving stress-strain behavior, stress relaxation, creep, forced and free vibrations discussed.

413/513 MOLECULAR STRUCTURE AND PHYSICAL PROPERTIES OF POLYMERS III *2 credits*
Prerequisite: 412/512 or permission. Deformation of bounded rubber units, the correspondence principle, time-dependent failure, mechanical properties of polymeric foams and design considerations discussed.

414 SEMINAR IN POLYMER SCIENCE *1-2 credits*
New and unsolved problems of polymer science discussed from interdisciplinary view of material sciences. A student prepares one or more formal technical presentations related to chemical aspects of field.

415 MOLECULAR STRUCTURE AND PHYSICAL PROPERTIES OF POLYMERS LABORATORY *2 credits*
Prerequisite: 413 or permission. Laboratory experiments involving the topics covered in the prerequisite course.

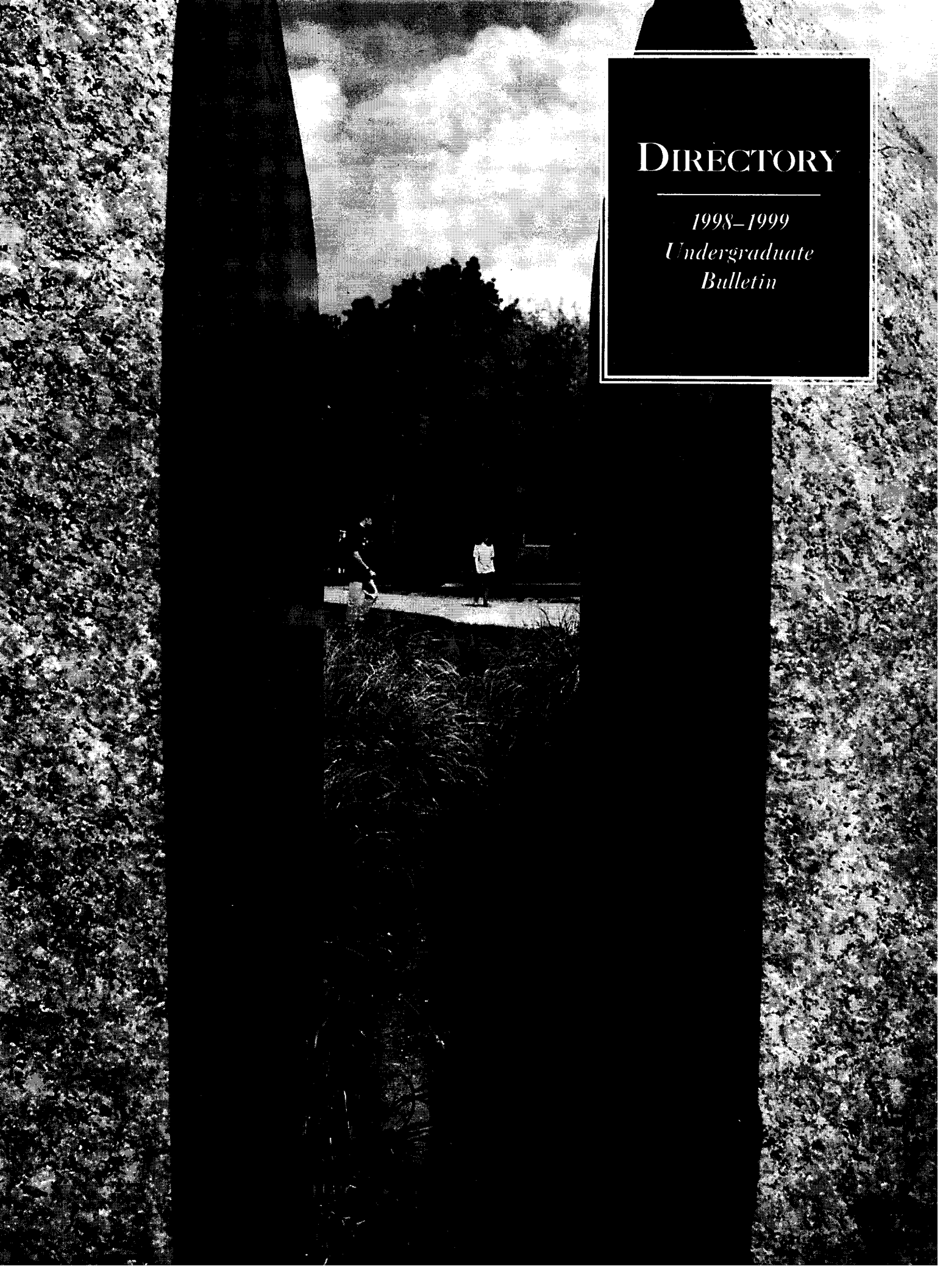
416 EXTRUSION AND MOLDING *3 credits*
Prerequisite: 302 or permission. Introduction of extrusion and molding processes for plastics. Theory of extrusion and molding processes and their application to the types of materials used, variations in equipment and the processing characteristics involved. Lecture and laboratory.

417 ADHESIVES AND COATING *2 credits*
Prerequisite: 302 or permission. This course involves the fundamentals of adhesives and coatings technology. The chemical and physical properties of adhesives and coatings will be discussed and will be related to molecular structure. Specific materials, applications and testing procedures will be discussed and practical experience gained by experimentation in the laboratory.

418 COMPOSITES, CELLULAR STRUCTURES AND TIRE TECHNOLOGY *4 credits*
Prerequisite: 302 or permission. The importance and science of composite structures will be taught and applied to the technology of foam and tire manufacture. Laboratory experiments will be used to illustrate the principles involved.

490/590 WORKSHOP IN POLYMER SCIENCE *1-3 credits*
(May be repeated with permission) Group studies on selected topics involving polymers. May not be used to meet undergraduate or graduate major requirements in polymer science. May be used for elective credit only.

499 RESEARCH PROBLEMS IN POLYMER SCIENCE *1-3 credits*
Prerequisite: permission. Faculty-supervised undergraduate research problems in polymer science, culminating in a written report.



DIRECTORY

1998–1999
Undergraduate
Bulletin

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May 1998

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September 1998

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DAVID E. STEPHEN, SR., *Director of Residence Life and Housing*, Ph.Ed.
EUGENE STEPHENS, *Director of Purchasing*, M.B.A.
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WILLIAM H. VIAU, *Assistant Executive Director of Human Resources*, J.D.
THOMAS J. VUKOVICH, *Associate Provost for Students and Enrollment Services*, Ph.D.
JEFFREY J. WALLACE, SR., *Associate Provost; Special Assistant to the President for Campus Diversity*, Ph.D.
KATHY R. WATSON, *Interim Executive Director for Human Resources*, B.S.
MICHAEL M. WILLIAMS, *Associate Dean of the Community and Technical College*, Ed.D.
MAX S. WILLIS, JR., *Associate Dean for Research and Graduate Studies in the College of Engineering*, Ph.D.
G. EDWIN WILSON, *Interim Associate Provost for Research*, Ph.D.

Emeritus Faculty

September 1998

NORMAN P. AUBURN, *President Emeritus of the University, Professor Emeritus of Political Science and Consultant* (1951) (Ret. as President 1971; Consultant 1971-) B.A., University of Cincinnati, 1927; LL.D. Parsons College, 1945; LL.D., University of Cincinnati, 1952; D.Sc. University of Tulsa, 1957; LL.D. University of Liberia (West Africa), 1959; Litt.D., Washburn University of Topeka, 1961; L.H.D., College of Wooster, 1963; LL.D., The University of Akron, 1971; D.C.L. Union College, 1979.

D. J. GUZZETTA, *President Emeritus; Professor Emeritus of Higher Education* (1954-March 1968) (August 1971) (Ret. as President September 1984) (Ret. August 1985) B.A., Ed.M., Ed.D., University of Buffalo, 1953; LL.D., The University of Akron, 1968; D.S.Sc., Marian College, 1971; LL.D., Kent State University, 1971; L.H.D., Walsh College; LL.D., Bellevue College, 1978.

IRVING A. ACHORN, *Professor Emeritus of Art* (1965) (Ret. December 1983) B.S., M.A., Kent State University, 1956.

ALEXANDER L. ADAMS, *Assistant Professor Emeritus of Physical Education* (1970) (Ret. December 1989) B.S.Ed., M.S.Ed., The University of Akron, 1970.

HOBART W. ADAMS, *Professor Emeritus of Accounting* (1969) (Ret. 1993) B.S.Ed., Kent State University; M.B.A., D.B.A., Indiana University at Bloomington, 1967.

RONNIE G. ADAMS, *Professor Emeritus of Surveying and Construction Technology* (1969) (Ret. 1996) B.C.E., Cleveland State University; M.S.C.E., Lehigh University, 1963.

J. THOMAS ADOLPH, *Professor Emeritus of Physical Education* (1969) (Ret. 1995) B.A., The University of Akron; M.Ed., Ohio University; Ph.D., The Ohio State University, 1969.

STANLEY AKERS, *Assistant Professor Emeritus of Bibliography* (1967) (Ret. December 1997) B.S., M.A., The University of Akron; Ph.D., Kent State University, 1989.

CAROLYN A. ALBANESE, *Associate Professor Emeritus of Home Economics and Family Ecology* (1978) (Ret. May 1998) B.S., Southern Illinois University at Carbondale; M.S., The Ohio State University, 1969.

DORIS S. ALDRICH, *Associate Professor Emeritus of Home Economics* (1973) (Ret. December 1988) B.S., M.Ed., Kent State University, 1972.

VIRGINIA L. ALLANSON, *Associate Professor Emeritus of Bibliography* (1968) (Ret. 1984) B.S., Purdue University; M.L.S., Kent State University, 1966.

ABDUL AMER ALRUBAIY, *Professor Emeritus of Education* (1972) (Ret. 1994) B.S., M.A., E.D.S., Eastern Michigan University; Ph.D., Kent State University, 1972.

VINCENT A. ALTIER, *Assistant to the Dean Emeritus of the College of Polymer Science and Polymer Engineering* (January 1983) (Ret. 1996) A.B., Youngstown State University; M.S., The University of Akron, 1954.

BARBARA S. ANANDAM, *Assistant Professor Emeritus for Nursing* (March 1973) (Ret. 1993) B.S., M.S., Boston University; Ed.S., Kansas State Teachers College, 1971.

WALTER E. ARMS, *Associate Professor Emeritus of Education* (1968) (Ret. July 1989) B.S., Northwest Missouri State College; M.Ed., University of South Dakota; Ed.D., Indiana University at Bloomington, 1968.

BARBARA N. ARMSTRONG, *Professor Emeritus of Home Economics* (1972) (Ret. December 1989) B.S., M.S., West Virginia University; Ph.D., The Ohio State University, 1970.

BRUCE R. ARMSTRONG, *Professor Emeritus of Art* (1971) (Ret. 1994) B.F.A., California Institute of the Arts; M.F.A., Washington State University, 1968.

WILLIAM J. ARN, *Professor Emeritus of Education* (1967) (Ret. December 1983) B.S.Ed., Ohio Northern University; M.S.Ed., Bowling Green State University; Ph.D., Kent State University, 1967.

HELEN MAE ARNETT, *Associate Professor Emeritus of Bibliography* (1953) (Ret. 1972) B.A., The University of Akron; B.S.L.S., Case Western Reserve University; M.A., San Jose State College (California); Ph.D., Case Western Reserve University, 1965.

R. DIANE ARNOLD, *Associate Professor Emeritus of Physical and Health Education* (Wayne College) (1972) (Ret. May 1998) B.S., University of Maryland at College Park; M.A., The Ohio State University; M.S., The University of Akron, 1991.

GLENN A. ATWOOD, *Associate Dean Emeritus of the College of Engineering; Professor Emeritus of Chemical Engineering* (1965) (Ret. December 1989) B.S., M.S., Iowa State University; Ph.D., University of Washington, 1963.

MARY ELLEN ATWOOD, *Professor Emeritus of Education* (1969) (Ret. 1994) B.S., Iowa State University; M.S., Ph.D., The University of Akron, 1983.

GERTRUDE BADGER, *Associate Professor Emeritus of Education* (1965) (Ret. 1977) B.S.Ed., B.A., The Ohio State University; M.Ed., Kent State University, 1960.

FRANK V. BALDO, *Professor Emeritus of Marketing* (1969) (Ret. 1979) B.B.A., Fenn College; M.B.A., Case Western Reserve University; Ph.D., Pennsylvania State University, 1968.

GEORGE W. BALL, *Executive Director Emeritus of University Relations and Development* (1957) (Ret. August 1987) B.A., Mount Union College, 1943.

ARPAD FREDERIC BANDA, *Professor Emeritus of Finance* (1968) (Ret. December 1988) B.S., City College of New York; M.B.A., Ph.D., New York University, 1964.

JAMES P. BANKS, *Director Emeritus of Development* (May 1974) (Ret. January 1987) B.S., Ohio University, 1950.

H. KENNETH BARKER, *Dean Emeritus of the College of Education; Professor Emeritus of Education* (1966) (Ret. December 1987) B.A., M.A., University of Louisville; Ph.D., University of Michigan, 1959.

DAVID BARR, *Associate Professor Emeritus of Education* (July 1974) (Ret. 1993) B.S., M.A., Kent State University, 1966.

CHARLES M. BARRESI, *Professor Emeritus of Sociology* (1966) (Ret. December 1989) B.A., M.A., University of Buffalo; Ph.D., State University of New York at Buffalo, 1965.

MARIAN L. BAUER, *Associate Professor Emeritus of Nursing* (1969) (Ret. 1982) B.A., Maryville College; M.N., Western Reserve University, 1941; R.N.

DONALD E. BECKER, *Associate Professor Emeritus of Management* (1959) (Ret. 1988) B.A., M.A., Oberlin College, 1948.

WILLIAM C. BECKER, *Professor Emeritus, School of Law* (1985) (Ret. 1994) A.B., Harvard University; J.D., University of Michigan, 1956.

CLARE BEDILLION, *Associate Professor Emeritus in the Community and Technical College* (1968) (Ret. 1975) B.A., Woman's College of Georgia; M.A., New York University; Ph.D., University of Michigan, 1974.

HAROLD BELOFSKY, *Associate Professor Emeritus of Mechanical Technology* (1987) (Ret. 1996) B.S.M.E., Cooper Union; M.M.E., New York University, 1952.

JUTTA T. BENDREMER, *Assistant Professor Emeritus of English; Fellow, Institute for Life-Span Development and Gerontology* (1967) (Ret. June 1998) B.A., Hunter College; M.A., Brooklyn College, 1951.

EUGENE M. BENEDICT, *Assistant Professor Emeritus in the Community and Technical College* (January 1969) (Ret. 1982) M.Div., Boston University School of Theology; B.A.Ed., M.A., The University of Akron, 1964.

MICHAEL S. BENNETT, *Associate Professor Emeritus of Social Science* (1976) (Ret. 1996) B.S., M.S., Ph.D., The Ohio State University, 1976.

DONALD K. BERQUIST, *Associate Professor Emeritus of Accounting* (1968) (Ret. December 1988) B.S. B.A., Youngstown State University; M.Acct., The Ohio State University, 1964.

ROBERT C. BERRY, *Director of Placement Emeritus* (1946) (Ret. 1976) B.S.B.A., The University of Akron, 1942.

CARL A. BERSANI, *Professor Emeritus of Sociology* (1965) (Ret. July 1993) B.A., Eastern Michigan University; M.A., University of Michigan at Ann Arbor; Ph.D., Iowa State University, 1965.

VINCENT J. BIONDO, *Assistant Professor Emeritus of Education* (1968) (Ret. 1976) B.A., M.A., M.A.Ed., The University of Akron, 1957.

DONALD F. BIRDSELL, *Professor Emeritus of Education* (1977) (Ret. 1988) B.A., Luther College; M.A., University of Minnesota; Ph.D., University of Iowa, 1965.

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(By College, School, and Department and the University Library)
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College of Polymer Science and Polymer Engineering

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Reserve Officers' Training Corps

Army

TIMOTHY C. GORRELL, *Professor of Military Science* (July 1997) B.A., The University of Akron; M.S., Monmouth University; Command and General College, 1994; Combined Arms Service and Staff School, 1989; Major, Field Artillery, U.S. Army.

GARY R. GATRELL, *Assistant Professor of Military Science* (May 1997) B.S., Kent State University; Combined Arms Service and Staff School, 1995; Major, Aviation, U.S. Army.

JEFFREY L. WATSON, *Assistant Professor of Military Science* (January 1997) B.S., University of Colorado at Boulder, 1988; Combined Arms Service and Staff School, 1996; Captain, Aviation, U.S. Army.

JASON L. BERRYHILL, Assistant Professor of Military Science (September 1997) B.S., Kent State University, 1992; Captain Air Defense Artillery, U.S. Army.

RONNIE ADAMS, *Senior Instructor of Military Science* (August 1996); Master Sergeant, U.S. Army.

MICHAEL A. ROWE, *Instructor of Military Science* (September 1995); Sergeant First Class, U.S. Army.

Air Force

GERALD A. HOLLERAN, *Professor of Aerospace Studies* (1996) B.S., University of Central Oklahoma; M.S., Troy State University, 1989; Squadron Officer School; Air Command and Staff College; Air War College; Lieutenant. Colonel., USAF.

DANIEL W. BREDESON, *Assistant Professor of Aerospace Studies* (1997) B.S., United States Air Force Academy; M.S. St. Mary's University, 1996; Squadron Officer School; Captain, USAF.

JEFFERY J. WEBER, *Air Force ROTC Regional Director of Admissions* (1998) B.S., The University of Akron, 1995; First Lieutenant, USAF.

LYNN M. DIXON, *NCOIC Information Management* (1998) Airman Leadership School; Technical Sergeant, USAF.

TIMOTHY A. REEB, *NCOIC Personnel* (1995) Airman Leadership School; Staff Sergeant, USAF.

The Maurice Morton Institute of Polymer Science

FRANK W. HARRIS, *Distinguished Professor of Polymer Science; Distinguished Professor of Biomedical Engineering; Director of The Maurice Morton Institute of Polymer Science; Research Associate, Institute of Polymer Science* (August 1983) B.S., University of Missouri; M.S., Ph.D., University of Iowa, 1968.

WILLIAM J. BRITTAIN, *Professor of Polymer Science* (August 1990) B.S., University of Northern Colorado; Ph.D., California Institute of Technology, 1982.

STEPHEN Z. D. CHENG, *Professor of Polymer Science* (July 1987) B.S., East China Normal University; M.S., East China Institute of Science and Technology; Ph.D. Rensselaer Polytechnic Institute, 1985.

RONALD K. EBY, SR., *Robert C. Musson Professor of Polymer Science* (July 1990) Sc.B., Lafayette College; M.S., Ph.D., Brown University, 1958.

MARK D. FOSTER, *Associate Professor of Polymer Science* (November 1990) B.S., Washington University; Ph.D., University of Minnesota at Minneapolis, 1987.

JOHN E. FREDERICK, *Associate Professor of Chemistry; Associate Professor of Polymer Science* (October 1966) B.S., Glenville State College; Ph.D., University of Wisconsin, 1964.

PURUSHOTTAM DAS GUJRATI, *Professor of Physics; Professor of Polymer Science* (1983) B.Sc., Banaras Hindu University, India; M.Sc., Indian Institute of Technology, India; M.A., M.Phil., Ph.D., Columbia University, 1978.

GARY R. HAMED, *Professor of Polymer Science* (August 1980) B.S.C.E., M.S.C.E., Cornell University; Ph.D., The University of Akron, 1978.

H. JAMES HARWOOD, *Professor of Chemistry; Professor of Polymer Science* (October 1959) B.S., The University of Akron, Ph.D., Yale University, 1956.

FRANK N. KELLEY, *Dean of the College of Polymer Science and Polymer Engineering; Professor of Polymer Science* (1978) B.S., M.S., Ph.D., The University of Akron, 1961.

JOSEPH P. KENNEDY, *Distinguished Professor of Polymer Science; Distinguished Professor of Chemistry* (April 1970) B.Sc., University of Budapest; M.B.A., Rutgers University; Ph.D., University of Vienna, 1954.

WAYNE L. MATTICE, *Alex Schulman Professor of Polymer Science* (July 1986) B.A., Grinnell College; Ph.D., Duke University, 1968.

RODERIC P. QUIRK, *Distinguished Professor of Polymer Science and Kumho Professor of Polymer Science; Department Chair of Polymer Science* (October 1983) B.S., Rensselaer Polytechnic Institute; M.S., Ph.D., University of Illinois, 1967.

DARRELL H. RENEKER, *Professor of Polymer Science* (September 1989) B.Sc., Iowa State University; M.Sc., Ph.D., University of Chicago, 1959.

DANIEL J. SMITH, *Professor of Chemistry; Faculty Research Associate, IPS* (1977) B.S., Wisconsin State University; Ph.D., University of California at Berkeley, 1974.

ERNST D. VON MEERWALL, *Distinguished Professor of Physics; Distinguished Professor of Chemistry; Faculty Research Associate, IPS* (1971) B.S., M.S., Northern Illinois University; Ph.D., Northwestern University, 1970.

MARCIA E. WEIDKNECHT, *Instructor in Polymer Science* (August 1989) B.S., University of New Hampshire, 1971.

WILEY YOUNGS, *Professor of Chemistry, Faculty Research Associate, IPS* (1990) B.A., State University of New York at Albany; Ph.D., State University of New York at Buffalo, 1980.

Institute of Polymer Engineering

JAMES L. WHITE, *Professor of Polymer Engineering; Harold A. Morton Professor* (January 1998); Director of the Institute of Polymer Engineering (July 1983) B.S.Ch.E., Polytechnic Institute of Brooklyn; M.S.Ch.E., Ph.D., University of Delaware, 1965.

KYONSUKU MIN-CAKMAK, *Associate Professor of Polymer Engineering* (August 1983) B.Eng., M.Eng., Kyoto Institute of Technology; Ph.D., University of Tennessee, 1984.

MUKERREM CAKMAK, *Professor of Polymer Engineering* (August 1983) B.S., Technical University of Istanbul; M.S., Ph.D., University of Tennessee, 1984.

CHANG DAE HAN, *Benjamin Franklin Goodrich Endowed Professor of Polymer Engineering* (January 1993) B.S., Seoul National University; M.S., Sc.D., Massachusetts Institute of Technology; M.S., Newark College of Engineering; M.S., New York University, 1971.

AVRAAM I. ISAYEV, *Professor of Polymer Engineering* (July 1983) M.Sc., Azerbaijan Institute of Oil and Chemistry; M.Sc., Moscow Institute of Electronic Machine Building; Ph.,D., USSR Academy of Sciences, 1970.

THEIN KYU, *Professor of Polymer Engineering* (August 1983) B.Eng., Kyoto Institute of Technology; M.Eng., D.Eng., Kyoto University, 1980.

ARKADII I. LEONOV, *Professor of Polymer Engineering* (August 1988) B.S., Moscow Institute of Chemical Engineering; M.S., Moscow State University; Ph.D., USSR Academy of Sciences; Ph.D., Karpov Physico-Chemical Research Institute, Moscow USSR, 1969.

EROL SANCAKTAR, *Professor of Polymer Engineering* (January 1996) B.S., Boston College, Istanbul (now Bosphorus University); M.S., Ph.D., Virginia Polytechnic Institutue and State University, 1979.

RUDOLPH J. SCAVUZZO, JR., *Associate Dean of the College of Polymer Science and Polymer Engineering; Interim Chair, Department of Polymer Engineering, Professor of Polymer Engineering; Professor of Mechanical Engineering* (September 1973) B.S.M.E., Lehigh University; M.S.M.E., Ph.D., University of Pittsburgh, 1962; P.E., Ohio.

Institute of Biomedical Engineering Research

STANLEY E. RITTGERS, *Professor of Biomedical Engineering; Director of the Institute for Biomedical Engineering Research* (1987) B.S., State University of New York at Buffalo; M.S., Ph.D., The Ohio State University, 1978.

GEORGE C. GIAKOS, *Assistant Professor of Biomedical Engineering* (1994) B.A., University of Turin; M.S., University of Edinburgh; M.S., Ohio University; Ph.D., Marquette University, 1991.

GLEN O. NJUS, *Research Associate Professor in Institute for Biomedical Engineering Research* (November 1986) B.S., M.S., Ph.D., University of Iowa, 1985.

NARENDER P. REDDY, *Professor of Biomedical Engineering* (March 1981) B.E., Osmania University; M.S., University of Mississippi; Ph.D., Texas A&M University, 1974.

DONNA B. RICHARDSON, *Assistant Professor of Biomedical Engineering* (1994) B.S., University of Iowa; M.S., Ph.D., Duke University, 1991.

DANIEL B. SHEFFER, *Associate Professor of Biology; Associate Professor of Biomedical Engineering; Director, Biostereometrics Laboratory* (July 1980) B.S., M.Ed., Northwestern State College; Ph.D., Texas A&M University, 1976.

BRUCE C. TAYLOR, *Associate Professor of Biomedical Engineering; Associate Professor of Electrical Engineering* (1988) B.A., Hiram College; M.A., Ph.D., Kent State University, 1971.

MARY C. VERSTRAETE, *Associate Professor of Biomedical Engineering* (1988) Department Chair of Biomedical Engineering; B.S., M.S., Ph.D., Michigan State University, 1988.

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Buchtel College

S. H. McCOLLESTER*, 1872-1878, D.D., Litt. D.
E. L. REXFORD*, 1878-1880, D.D.
ORELLO CONE*, 1880-1896, D.D.
CHARLES M. KNIGHT*, 1896-1897, D.Sc. (ad interim)
IRA A. PRIEST*, 1897-1901, D.D.
A. B. CHURCH*, 1901-1912, D.D., LL.D.
PARKE R. KOLBE*, 1913, Ph.D., LL.D.

The University of Akron

PARKE R. KOLBE*, 1913-1925, Ph.D., LL.D.
GEORGE F. ZOOK*, 1925-1933, Ph.D., LL.D.
HEZZLETON E. SIMMONS*, 1933-1951, M.S., D.Sc. LL.D.
NORMAN P. AUBURN, 1951-1971, B.A., D.Sc., Litt.D., L.H.D., LL.D., D.C.L.
D. J. GUZZETTA, 1971-1984, Ed.D., LL.D., D.S.Sc., L.H.D.
WILLIAM V. MUSE, 1984-1992, B.S., M.B.A., Ph.D.
MARION A. RUEBEL, 1992, B.A., M.A., Ph.D., (acting)
PEGGY GORDON ELLIOTT, 1992-1996, B.A., M.S., Ed.D.
MARION A. RUEBEL, 1996-, B.A., M.A., Ph.D.

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ERNEST H. CHERRINGTON, JR., 1948-1960, Ph.D.
THOMAS SUMNER*, 1960-1962, Ph.D.
GEORGE W. KNEPPER, 1962-1967, Ph.D.
DON A. KEISTER, 1967-1969, Ph.D.
JOHN BACHMANN*, 1969-1970, Ph.D. (acting)
ROBERT A. OETJEN, 1970-1977, Ph.D.
CLAIBOURNE E. GRIFFIN*, 1977-1993, Ph.D.
RANDY MOORE, 1993-95, Ph.D.
ROGER B. CREEL, 1995-97, Ph.D. (Interim)
ROGER B. CREEL, 1997-, Ph.D.

College of Engineering

FREDERIC E. AYER*, 1914-1946, C.E., D.Eng.
R. D. LANDON, 1946-1963, C.E., M.S.
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MICHAEL J. RZASA*, 1964-1970, Ph.D.
COLEMAN J. MAJOR, 1970-1979, Ph.D.
JOSEPH EDMINISTER, 1980-1981, J.D. (acting)
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S. GRAHAM KELLY III, 1998-, Ph.D. (interim)

College of Education

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HJALMER W. DISTAD*, 1942-1944, Ph.D. (acting)
HOWARD R. EVANS*, 1944-1958, Ph.D.
D. J. GUZZETTA, 1958-1959, Ed.D. LL.D., D.S.Sc., L.H.D. (acting)
CHESTER T. McNERNEY, 1959-1966, Ph.D., LL.D.
H. KENNETH BARKER, 1966-1985, Ph.D.
JOHN S. WATT, 1985-1986, Ph.D. (acting)
CONSTANCE COOPER, 1986-1988, Ed.D.
JOHN S. WATT, 1988-1989, Ph.D. (acting)
WILLIAM E. KLINGELE, 1989-1996, Ed.D.
RITA S. SASLAW, 1996-1998, Ph.D. (interim)
LARRY BRADLEY, 1998-, Ph.D. (interim)

College of Business Administration

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RICHARD C. REIDENBACH, 1962-1967, Ph.D.
ARTHUR K. BRINTALL, 1967-1968, Ph.D. (acting)
WILBUR EARLE BENSON*, 1968-1970, Ph.D.
JAMES W. DUNLAP, 1970-1989, Ph.D.
RUSSELL J. PETERSEN, 1989-1994, Ph.D.
JAMES INMAN, 1994-1995, LL.M. (interim)
STEPHEN F. HALLAM, 1995-, Ph.D.

School of Law

STANLEY A. SAMAD, 1959-1979, J.S.D.
ALBERT S. RAKAS*, 1979-1981, J.D. (interim)
DONALD M. JENKINS, 1981-1987, LL.M.
ISAAC C. HUNT, JR., 1987-1995, LL.B.
RICHARD AYNES, 1995-, J.D.

Graduate School

CHARLES BULGER*, 1933-1951, Ph.D., Litt.D. (Dean of Graduate Work)
ERNEST H. CHERRINGTON, JR., 1955-1960, Ph.D. (Director of Graduate Studies)
ERNEST H. CHERRINGTON, JR., 1960-1967, Ph.D. (Dean of the Graduate Division)
ARTHUR K. BRINTALL, 1967-1968, Ph.D. (Dean of Graduate Studies and Research)
EDWIN L. LIVELY, 1968-1974, Ph.D. (Dean of Graduate Studies and Research)
CLAIBOURNE E. GRIFFIN, 1974-1977, Ph.D. (Dean of Graduate Studies and Research)
JOSEPH M. WALTON, 1977-1978, Ph.D. (Associate Dean of Graduate Studies and Research)
ALAN N. GENT, 1978-1986, Ph.D. (Dean of Graduate Studies and Research)
JOSEPH M. WALTON, 1986-1989, Ph.D. (Acting Dean of Graduate Studies and Research)
PATRICIA L. CARRELL, 1989-1993, Ph.D. (Dean of the Graduate School)
CHARLES M. DYE, 1993-, Ph.D. (Dean of the Graduate School)

University College (formerly General College)

D. J. GUZZETTA, 1959-1962, Ed.D., LL.D., D.S.Sc., L.H.D.
THOMAS SUMNER*, 1962-1977, Ph.D.
PAUL S. WINGARD, 1977-1978, Ph.D. (acting)
MARION A. RUEBEL, 1978-1989, Ph.D.
NANCY K. GRANT, 1989-1990, Ph.D. (acting)
THOMAS J. VUKOVICH, 1990-1993, Ph.D. (acting)
KARLA T. MUGLER, 1993-, Ph.D.

Evening College

L. L. HOLMES, 1932-1934, M.A. (director)
LESLIE P. HARDY*, 1934-1953, M.S.Ed., L.H.D. (director)
E. D. DURYEA, 1953-1956, Ed.D. (dean)
D. J. GUZZETTA, 1956-1959, Ed.D., LL.D., D.S.Sc., L.H.D. (dean)
WILLIAM A. ROGERS, 1959-1967, Ed.D. (dean)
CHARLES V. BLAIR, 1967-1970, M.A. (dean)
JOHN G. HEDRICK, 1970-1974, M.A. (dean)
CAESAR A. CARRINO, 1974-1986, Ph.D. (dean)

Community and Technical College

W. M. PETRY*, 1964-1974, M.S.M.E.
ROBERT C. WEYRICK, 1974-1985, M.S.
FREDERICK J. STURM, 1985-1987, Ed.D. (acting)
JAMES P. LONG, 1987-1989, Ph.D.
FREDERICK J. STURM, 1990-, Ed.D.
DEBORAH S. WEBER, 1995-96, M.A. (interim)
DAVID A. SAM, 1996-, Ph.D.

College of Fine and Applied Arts

RAY H. SANDEFUR*, 1967-1978, Ph.D.
GERARD L. KNIETER, 1978-1986, Ph.D.
KELVIE C. COMER, 1986-1987, Ed.D. (acting)
WALLACE T. WILLIAMS*, 1987-1991, Ph.D.
DONALD E. HALL, 1991-1992, Ph.D. (acting)
LINDA L. MOORE, 1992-1998, Ph.D.
MARK S. AUBURN, 1998-, Ph.D. (interim)

College of Nursing

ESTELLE B. NAES, 1967-1975, Ph.D.
LILLIAN J. DeYOUNG, 1975-1988, Ph.D.
ELIZABETH J. MARTIN, 1988-1992, Ph.D.
V. RUTH GRAY, 1992-, Ed.D.
JANNE R. DUNHAM-TAYLOR, 1996-1997, Ph.D. (interim)
CYNTHIA CAPERS, 1997-, Ph.D.

Wayne College

MARVIN E. PHILLIPS, 1972-1974, M.A. (acting director)
JOHN G. HEDRICK, 1974-1974, M.A. (director)
JOHN G. HEDRICK, 1974-1979, M.A. (dean)
ROBERT L. McELWEE, 1979-1980, M.A. (acting dean)
TYRONE M. TURNING, 1980-1995, Ed.D. (dean)
FREDERICK J. STURM, 1995-1997, Ed.D. (dean)
JOHN P. KRISTOFCO, 1997-, Ph.D. (dean)

College of Polymer Science and Polymer Engineering

FRANK N. KELLEY, 1988-, Ph.D. (dean)

Current Members of College and School Advancement/Advisory Councils

May 1998

Buchtel College of Arts and Sciences

(Advisory Council)

Mrs. Pamela S. Williams (chair), Paul Allison, Esq., Mr. Arnold E. Bellowe, Mr. Maury Blanton, Mrs. Hortense Bobbitt, Mr. Gregory L. Davis, Dr. James D. D'Ianni, Mr. Thomas H. DuFore, Ms. Miyun Cho Fellerhoff, Dr. James L. Foght, Mrs. Bonnie Gwin, Dr. Edward H. Hanten, Mrs. Kathryn M. Hunter, Dr. Russ Livigni, Ms. Barbara Matthews, Mr. Ernest E. McClellan, Mrs. Sharon C. Reaves, Mr. Frederick M. Shepperd, Ms. Debra L. Shumar, Mrs. Cathryn C. Taliaferro, Dr. H. Burnham Tinker, Dr. Gary B. Williams, Mr. James Williams.

College of Engineering

(Advisory Council)

Mr. William J. Bandy, Jr., Mr. B. Alan Brubaker, Dr. Yung-Fu Chang, Mr. Richard L. Erickson, Dr. J. Stuart Fordyce, Dr. Mehmet A. Gencer, Mr. Robert A. Handelman, Mr. C. David Haugh, Dr. James J. Hogan, Mr. Richard G. Nichols, Mr. Harry L. Page, Mr. Bruce (Bud) W. Rogers, Jr., Mr. James L. Ruhlin, Congressman Thomas C. Sawyer, Mr. R.J. Steichen.

(Advancement Council)

Mr. Hoyt M. Wells (President), Mr. William J. Bandy, Jr., Mrs. Barbara Gould, Mr. John Greco, Mr. R. James Hammontree, Jr., Mr. Robert A. Handelman, Mr. Louis B. Perry, Mr. Rick E. Porter, Mr. Bruce W. Rogers, Mr. Charles J. Schafer, Mr. William J. Sharp, Mr. J. Michael Talbert, Mr. John Trostheim, Dr. Thomas Von Lehman, Mr. Jerry H. Welty, Mr. James F. Wood.

College of Education

(Advisory Council)

Mr. Dennis Buzzelli, Ms. Barbara Greene, Mr. Greg Kavinsky, Dr. Janet Litzel, Mr. Richard Roberts, Mr. Brian G. Williams.

College of Business Administration

(Advancement Council)

Mr. Richard P. Adante, Ms. Jacquelyne Bailey, Mr. Richard J. Bajenski, Mr. James W. Barnett, Ms. Donna L. Barton, Mr. William L. Caplan, Mr. John E. Chris, Mr. John H. Costello III, Mr. Ray (Jack) DeCrane, Mr. Vincent A. Di Girolamo, Ms. Kathryn W. Dindo, Mr. David H. Dye, Mr. Richard Fedorovich, Mr. Richard D. First, Mr. Edward S. Gaffney, Mr. Richard M. Gargano, Ms. Linda L. Gentile, Mr. William J. Ginter, Mr. Oscar Hatchett, Mr. Ed Hedeen, Mr. William C. Jennings, Mr. C. Roger Judy, Mr. Stewart Lorenzen, Mr. John Macso, Mr. William G. Maltarich, Jr., Mr. Richard H. Marsh, Mr. Robert McMinn, Mr. Kevin B. McWhorter, Mr. Robert L. Moore, Mr. Robert R. Morrison, Mr. Ronald W. Ocasek, Mr. John Piecuch, Mr. Ernie Pouttu, Mr. Roger T. Read, Ms. Suzanne Rickards, Mr. Lawrence E. Saulino, Mr. William Scala, Ms. Nancy M. Schlichting, Ms. Sandra F. Selby, Mr. Dan Sondles, Mr. Roger W. Spiller, Mr. Robert Stefanko, Mr. David F. Thomas, Mr. Lawrence C. Wise, Mr. Michael Zimmerman.

College of Fine and Applied Arts

(Advancement Council)

Mr. Ted Good (chair), Ms. Claudia Bowers, Mr. Richard H. Buffett, Dr. Bonnie Burman, Mr. William G. Chris, Mrs. Mary Lynn Crowley, Mrs. Joanne Daverio, Mrs. Barbara Gillette, Mrs. Teresa Good, Ms. Beth Kartarius, Ms. Marilyn Lemmon, Mrs. Jean Mercer, Dr. James Mercer, Ms. E. Sue Milligan, Mrs. Kristine Mogan, Mrs. Margaret Murphy,Mrs. Debra Mygrant, Mr. John Mygrant, Dr. Yale Palchick, Mrs. Carolyn Frye Ryan, Ms. Jane Walker Snider, Mrs. Janet Sours, Mr. John Sours, Mr. Ronald L. Stoudt; Mr. Walter Mirapaul (honorary) and Mr. William C. Waldman (honorary).

College of Nursing

(Advancement Council)

Dr. Herbert E. Croft (chair), Mr. Charles Barton, Mrs. Minnette Beeson, Dr. Cynthia Capers, Dr. Lillian DeYoung (honorary), Dr. Phyllis Fitzgerald, Mr. Richard Gill, Dr. Kristine Gill, Mr. David Horn, Mrs. Mary E. Meeker, Mrs. June Netzley, Dr. Elaine Nichols, Dr. James M. Rehmus, Mrs. Marylea Stitzel, Ms. Karen L. Talbott, Mrs. Diane Vishnia.

(Advisory Council)

Mr. Charles Barton, Mrs. Judith Cazzolli, Mr. John Demund, Mrs. Eileen Good, Mrs. Carolyn Gustafson, Ms. Patricia Mahovich, Ms. Kay McGill, Mr. Christopher L. Parker, Mrs. Cathy Kobbelman, Ms. Gloria Rookard, Ms. Nancy Ross-Bell, Mrs. Linda Scherger, Mr. Robert Schloss, Mrs. Carol Storad, Mrs. Norma Tomlinson, Mrs. Joan Feeney Wessman, Mrs. MaryYeager.

Community and Technical College

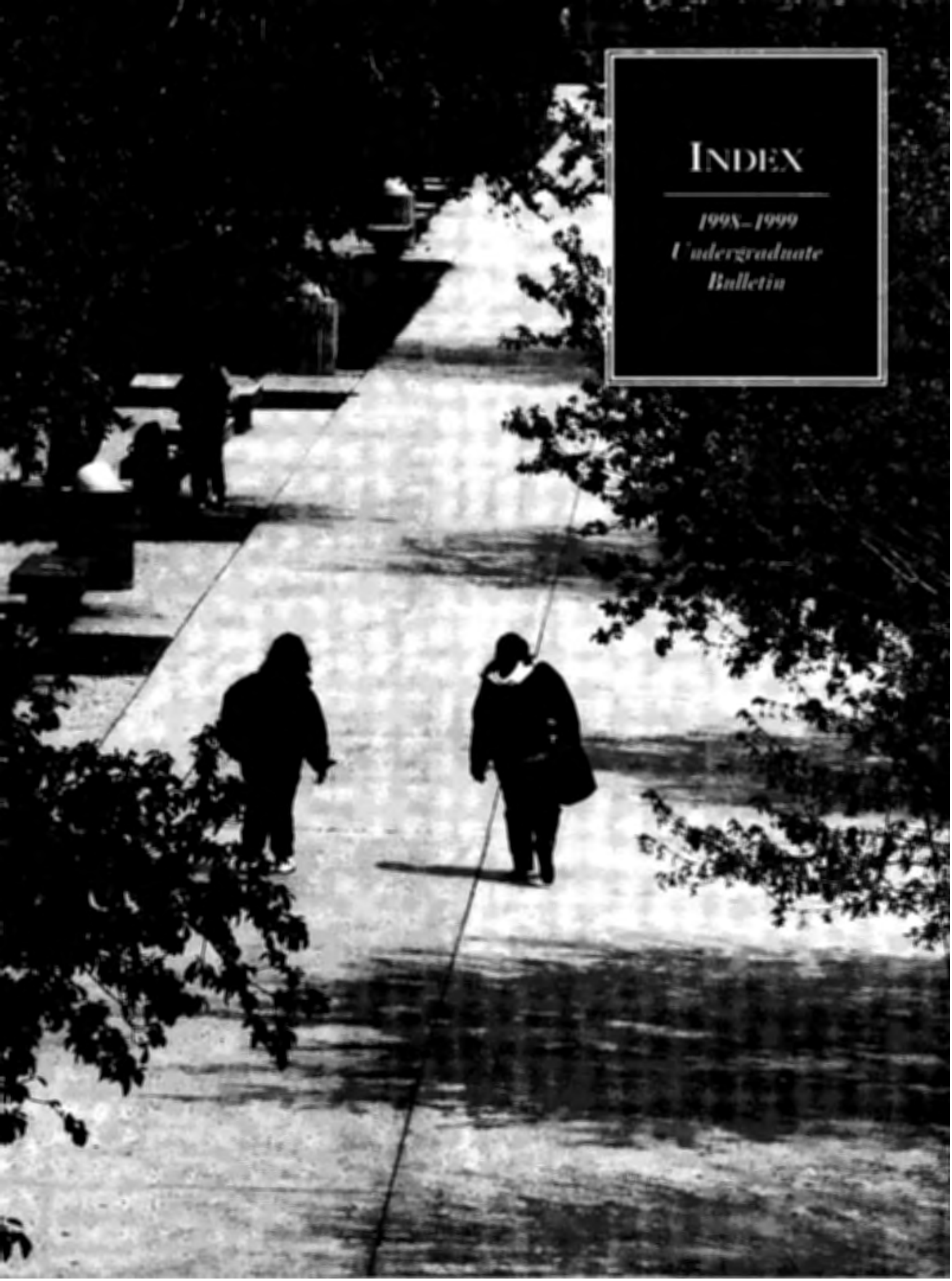
(Advisory Committee)

Sandy K. Auburn, *Director, Workforce Development, Akron Regional Development Board*; Kimberly R. Baer, *Department of Personnel, The City of Akron*; David Bokmiller, *Manager, Manufacuturing Services, Landmark Plastic Corp.*; Karen Chuparkoff, *Labor Realtions Manager, Akron Beacon Journal*; Malcolm J. Costa, *CEO, Akron, Summit Community Action, Inc.*; Timothy A. Dimoff, *President, S.A.C.S. Consulting & Investigative Services*; Timothy J. Duffy, *Director, Akron, Machining Institute*; John A. Gill, *Vice President, Ohio Edison*; Robert A. Handelman, *President, Chemstress Contultant Company*; Joseph Kidder, *Director of Public Service, Department of Public Service, The City of Akron*; Howard Lawson, *Director, Career Education, Conrad C. Ott Staff Development Center*; Christopher J. Maurer, *Senior Vice President, FirstMerit Corporation*; Debra L. Palmer, *Vice President, Human Resources and Development, ComDoc*; James Phelps, *Deputy Mayor, The City of Akron, Office of Economic Development*; Charles J. Smith, *Director, Small Business Development Center, Akron Regional Development Board*; Maureen N. Van Duser, *Vice President - Human Resources, Akron General Medical Center*; Jesse T. Williams, *Sr. Vice President, Human Resources Policy Employment Practices and Systems, Goodyear Tire and Rubber Co.*

Wayne College

(Community Council)

Ms. Sara Balzarini, Ms. Susan Buchwalter, Mr. Martin Degnan, Mr. Steven Ellcessor, Mr. William Fellows, Dr. Jack Kristofco, Mr. John Kropf, Mr. Steve Shapiro, Mr. Bala Venkataraman, Mr. John Waltman, Mr. Theodore Williams.



INDEX

1998–1999
Undergraduate
Bulletin

A

B

C

D

E

F

G

H

I

J

L

M

N

O

P

R

S

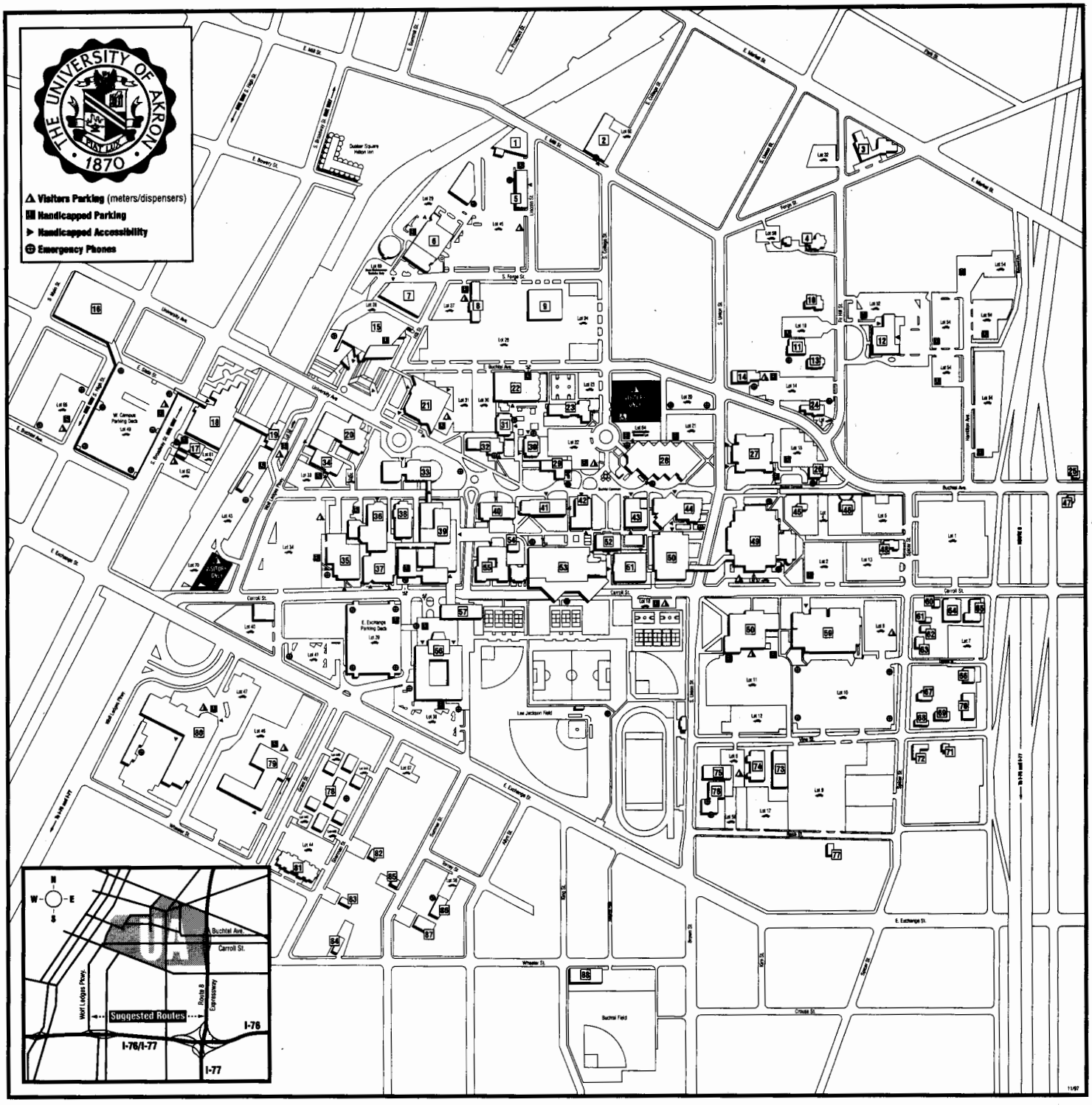
T

U

V

W

Z



	A		B		C		D		E		F		G		H		I		J		K		L	

Bldg.	No.	Academic, Administrative and Multipurpose Buildings
B5	26	Admissions Building
B6	39	Auburn Science and Engineering Center
F2	2	Akron Polymer Training Center
I1	88	Athletic Service Building
B5	40	Ayer Hall
F2	3	Ballet Center
F2	1	Bel-Aire Building
B5	28	Bierce Library
B6	52	Buchtel Hall
B5	19	Buckingham Building
F7	51	Carroll Hall
I6	11	Center for Child Development
I6	9	Central Services Building
B5	18	College of Business Administration Building
B5	35	Computer Center
B5	54	Computer Solutions *(Store)*
B5	41	Crouse Hall
I6	15	E.J. Thomas Performing Arts Hall
B5	80	Folk Hall
F7	53	Gardner Student Center
F7	37	Gladwin Hall
B5	33	Goodyear Polymer Center
B5	21	Guzzetta Hall
I6	4	Hower House
B5	36	Knight Chemical Laboratory
H6	44	Kolbe Hall
G6	43	Leigh Hall
F2	5	100 Lincoln Street Building
J4	12	Martin University Center
D5	20	McDowell Law Center
H7	50	Memorial Hall
F4	8	North Hall
J7	59	Ocasek Natatorium
I5	27	Olin Hall
E3	6	Olson Research Center
A4	16	The Polsky Building
E4	7	Physical Facilities Operations Center
I6	49	James A. Rhodes Health and Physical Education Building
F5	22	Robertson Dining Hall and Health Services
E7	57	Schrank Hall North
E8	56	Schrank Hall South
F7	55	Simmons Hall
C5	17	277 South Broadway Street Building
I7	58	Spicer Hall
I5	24	Stitzlein Alumni Center
I5	14	143 Union Street Building
D5	34	West Hall
E6	38	Whitby Hall
G6	42	Zook Hall

Bldg.	No.	Residence Halls
K8	70	Berns Residence Hall*
H9	76	Brown Street Residence Hall
F5	30	Bulger Residence Hall
E10	82	Concord Residence Hall*
D11	84	Ellis House*
C9	79	Gallucci Residence Hall *(houses Honors Program)*
E10	86	Garson Residence Hall
K8	66	Glenville Residence Hall*
D10	61	Grant Residence Center High-rise
H9	74	Joey Residence Hall*
E11	67	Judson House*
G5	23	Orr Residence Hall
G6	29	Ritchie Residence Hall
D10	83	Sherman Residence Hall*
F5	32	Sisler-McFawn Residence Hall
F5	31	Spanton Residence Hall
E10	85	Sumner Residence Hall*
D9	78	Town Houses
H9	75	Wallaby Residence Hall*
H9	73	Wallaroo Residence Hall*

** Privately owned residence halls*

Bldg.	No.	Fraternities and Sororities
K9	72	Alpha Delta Pi Sorority
K7	60	Alpha Gamma Delta Sorority
K7	61	Alpha Kappa Alpha Sorority
K7	62	Alpha Phi Sorority
J6	46	Delta Gamma Sorority
L6	25	Delta Tau Delta Fraternity
K7	63	Kappa Kappa Gamma Sorority
J4	10	Lambda Chi Alpha Fraternity
J6	48	Phi Delta Theta Fraternity
K8	67	Phi Gamma Delta Fraternity
L6	47	Phi Kappa Psi Fraternity
I6	45	Phi Kappa Tau Fraternity
K7	65	Phi Sigma Kappa Fraternity
K9	71	Pi Kappa Epsilon *(Lone Star)* Fraternity
K8	68	Sigma Alpha Epsilon Fraternity
K7	64	Sigma Nu Fraternity
J10	77	Sigma Pi Fraternity
J4	13	Tau Kappa Epsilon Fraternity
K9	89	Theta Chi Fraternity