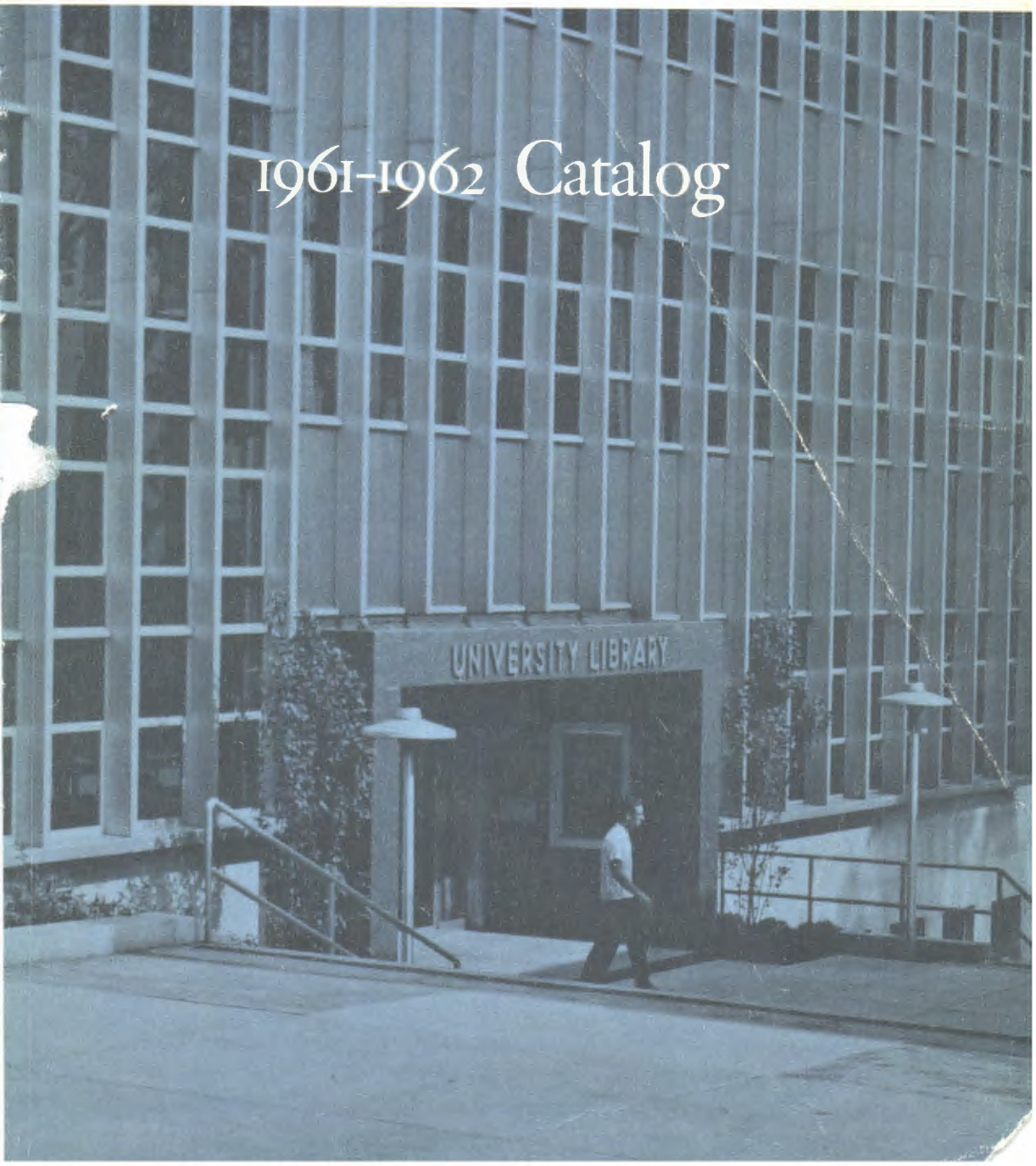
The University of Akron



1961-1962 Catalog

a descriptive booklet and catalog with explanations of courses and colleges at The University of Akron

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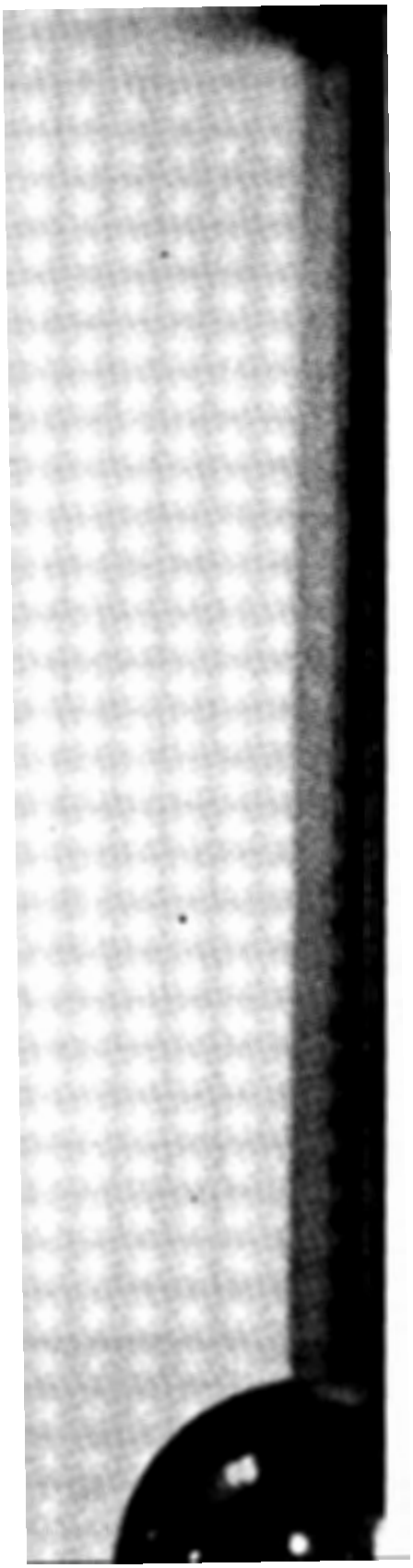


Dr. Norman P. Auburn became the President of The University of Akron in 1951.

In this first decade of his administration, the University has maintained its basic traditions of offering collegiate educational opportunities to as many people as possible and has made notable gains in the scope and quality of its academic facilities and services.

The pattern of Dr. Auburn's administration is in keeping with the theme of excellence—a fundamental campus-wide philosophy with a basic insistence on quality in every academic and academic-related area.

This University policy influences each professor's lecture as well as each student's application to his assignments. Adequacy is not an accepted level at The University of Akron.

The determination of faculty, students and administration to achieve excellence adds dramatically to the intellectual impact of the University. Dr. Auburn's constant aim has been to augment the force of the University's high standards in every way possible.

This keyword of quality underscores the value of every University student's college education so that at graduation, he is an increasingly valuable citizen supplied with a threefold tool for living in these modern times: ability to serve humanity, willingness to be productively forceful in his generation and awareness of why it is essential that he do so.

At The University of Akrc

e believe minds well-honed by skillful teaching are the best weapons for peace.

For the good of the world, all Americans must find compelling reasons for developing their intellectual capacities. They must then proceed to find their individual peaks of excellence.

Students, well-informed in the broad spheres of knowledge and intelligently motivated to be productive in their chosen fields, are the living symbols of hope in a troubled world.

Aerial view of downtown Akron

Akron . . . an Urban Institution

The University of Akron . . .

is one of three municipally tax-assisted institutions of higher learning in the state of Ohio.

The University is an integral part of "the rubber capital of the world" and many of its students are from Akron families. However, greater numbers enroll each year from other cities, states and foreign countries.

Despite its increasingly widespread appeal and its growing cosmopolitanism, The University of Akron retains its inherent atmosphere of a city campus.

The University is undeniably and proudly "in the middle of things" . . . close to industries, schools, offices and laboratories anxious to employ its graduates. On all sides of the campus are the sights and sounds of a busy 20th century American city with its people hard at work.

2

The University of Akron, Its Chronicle

Shortly after the Civil War, a small college was built on a hilltop near the edge of town in Akron, Ohio.

The men who bought the land and the bricks and hired the first instructors were zealous men, deeply concerned for the education of young men and women.

No one will ever know how farsighted the founders of that small college really were. Even on their most optimistic days, would they have dared to predict that their one brick building would grow to more than 20 . . . that their handful of students would grow to more than 7,000 . . . in short, that the small church-sponsored institution named Buchtel College would grow to the proportions of today?

★ ★ ★

In 1913, its denominational influence was noticeably lessening and Buchtel College assumed the formal name which it had informally begun to assume: a municipal institution of learning.

Since that time, the University has gained in strength from the public and in return, functioned with the philosophy of its very existence, affording an educational service entirely *of, by* and *for* the people.

A public institution such as the University has always felt the inescapable force of world affairs and because of this, wars have hit the Akron campus their devastating blows. But after each international conflict, the University has emerged even stronger.

During World War I when the populace turned its strength to a national cause and University men were trained on campus to become Army officers, a French teacher was hired to instruct the ones going "over there." Women students turned their efforts to making bandages and conserving food. Eventual results: The University had one of the nation's first R.O.T.C. units; it had the nucleus of a foreign language department and the home-canning classes expanded into a Home Economics course!

During World War II, Akron students and townspeople alike became part of the nationwide war effort. Industries claimed the able-bodied men and women who were not in actual military service. College courses had to be made available when people were not on production lines. Result: The University expanded its evening sessions until the courses became an important part of the curriculum.

Not all of the University crises have grown out of wars. Some of these have occurred in peacetime—a notable one being The Great Depression. In these lean years in the '30's, students scaped and saved for tuition. Faculty members were paid in script.

But times improved. America entered "The Automobile Age" in earnest. Fortunately for Akron and its University, cars and trucks took to the roads on rubber tires!

Men of courage and vision invested their money and efforts in the new rubber industries. Business began to boom and with rare exception, has continued. Akron industries have expanded and diversified until the city itself has a population of more than 300,000.

Just as the city has grown and improved, so has its University, reflecting the pattern of citywide and nationwide activity.

During the post-World War II period of rush-enrollment in colleges and Universities, the Akron campus began to overflow with students. Classes were held in nearby church basements and grade school auditoriums. Quonset huts were put up to serve as temporary lecture halls.

But this, too, did pass. New buildings were erected, bearing such proud names as Kolbe, Ayer and Knight. It was agreed that men who had poured of their life's energy into the University should be immortalized in this way.

Most recently a new library was dedicated at the University. A new men's residence hall was completed, one of the first tangible indications that the geographic scope of students would widen increasingly. Two more residences for students are under construction, with completion scheduled for 1962.

So it is to be deduced that history is not always ancient. Sometimes it happened only yesterday. And sometimes it happens to people we know . . . or better still, to ourselves!

★ ★ ★

When anyone traces the evolution of an expanding institution, he must acknowledge the specific years which have gone down in history as The Great Milestones. These are the ones most generally accept as the "big years" at The University of Akron:

1870..... Buchtel College, predecessor of the University, was founded.

1913..... Buchtel College became a municipal institution, its original name being perpetuated in The Buchtel College of Liberal Arts.

1914..... The Engineering College was established.

1915..... Evening Sessions were begun.

1921..... The College of Education was established.

1935..... The General College was established.

1953.....The College of Business Administration was established.

1959.....The College of Law was established.

1959.....The Ph.D. was conferred for the first time.

Will the decade of the 1960's provide other historic Great Milestones? The answer is a firm, confident YES. This is the time of the Giant Stride—the era of building and planning, improving and growing at The University of Akron. The people are demanding higher educational facilities as never before and the University intends to answer this call!

By retaining traditional respect for the honored past but at the same time, turning enthusiastic minds and hearts toward a hopeful future, the citizens of Akron and the students of its University will be part of real American history, enacting rôles in an exciting drama of progress.

In brief...

The Objectives of The University of Akron:

The University of Akron's principal reason for existence is to offer educational and cultural opportunities to the citizens of Akron.

The Administration and faculty hope to continue developing courses of academic excellence which will appeal to students of the Akron area and also be made available to interested students who are not of this community.

Another goal of The University of Akron is to provide incentive for faculty and student research, nourishing the spark of creative intellectuality and at all times, encouraging individual advancement on the many paths of knowledge.

The aims of the University are to serve its students in these ways:

1) To give them a wide general knowledge of the world, its cultures and its people.
2) To develop their senses of social responsibility and prepare them for productive lives of citizenship, well grounded on their own personal motivations.
3) To train them in specialized areas of professional performance so that they may achieve success in such fields as engineering, law, commerce, medicine and education.

The University is a center of culture in the city, with physical facilities and trained personnel available for consultation with civic and educational agencies.

Cultural and recreational events at the University are planned for the enrichment of all citizens; testing services are accessible to private individuals and industrial organizations.

The University's Accreditation . . . crux of its academic reputation:

Any educational institution is as strong as the level of excellence which it demands of itself, as well as of its faculty and students.

The University of Akron has set high standards for itself which result in its being accredited and approved by the following organizations and associations:

The North Central Association of Colleges and Secondary Schools, Ohio College Association, American Medical Association, American Chemical Society, the Engineers' Council for Professional Development and National Council for Accreditation of Teacher Education.

The University of Akron is a member of the following organizations:

American Council on Education, Association of American Colleges, Association of Urban Universities, American Society for Engineering Education, Ohio College Association, the American Association of Colleges for Teacher Education, and associate membership in The International Council on Education for Teaching.

The College of Law has membership in the League of Ohio Law Schools and is on the approved list of the American Bar Association.

Women graduates of the University with approved degrees (requiring at least two years or a minimum of 60 credits of non-professional, non-technical work credited toward a B.A. degree) are eligible to membership in the American Association of University Women.

How Does Accreditation Affect the Individual Student?

Accreditation assures a student that he is enrolled at a university which is recognized and approved by select regional and national educational associations, societies and councils.

A student has the security of knowing that credits earned at this university have transfer value to other institutions of learning, just as incoming transfer students learn by checking this list that The University of Akron can be expected to honor most of their credits earned at a similarly accredited college or university.

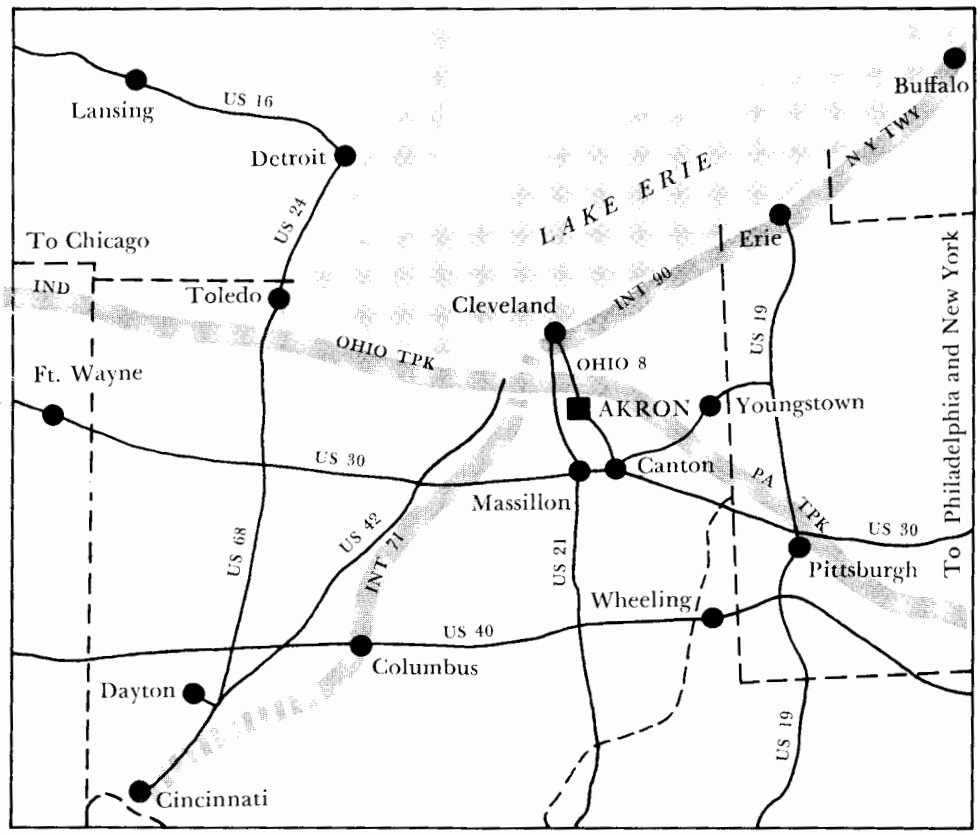
For the student taking pre-professional courses in order to enroll eventually for subsequent study in advanced fields such as medicine, dentistry, law or theology, there is the assurance that courses taken at The University of Akron will prepare him to be accepted by a graduate or professional school where he can specialize further.

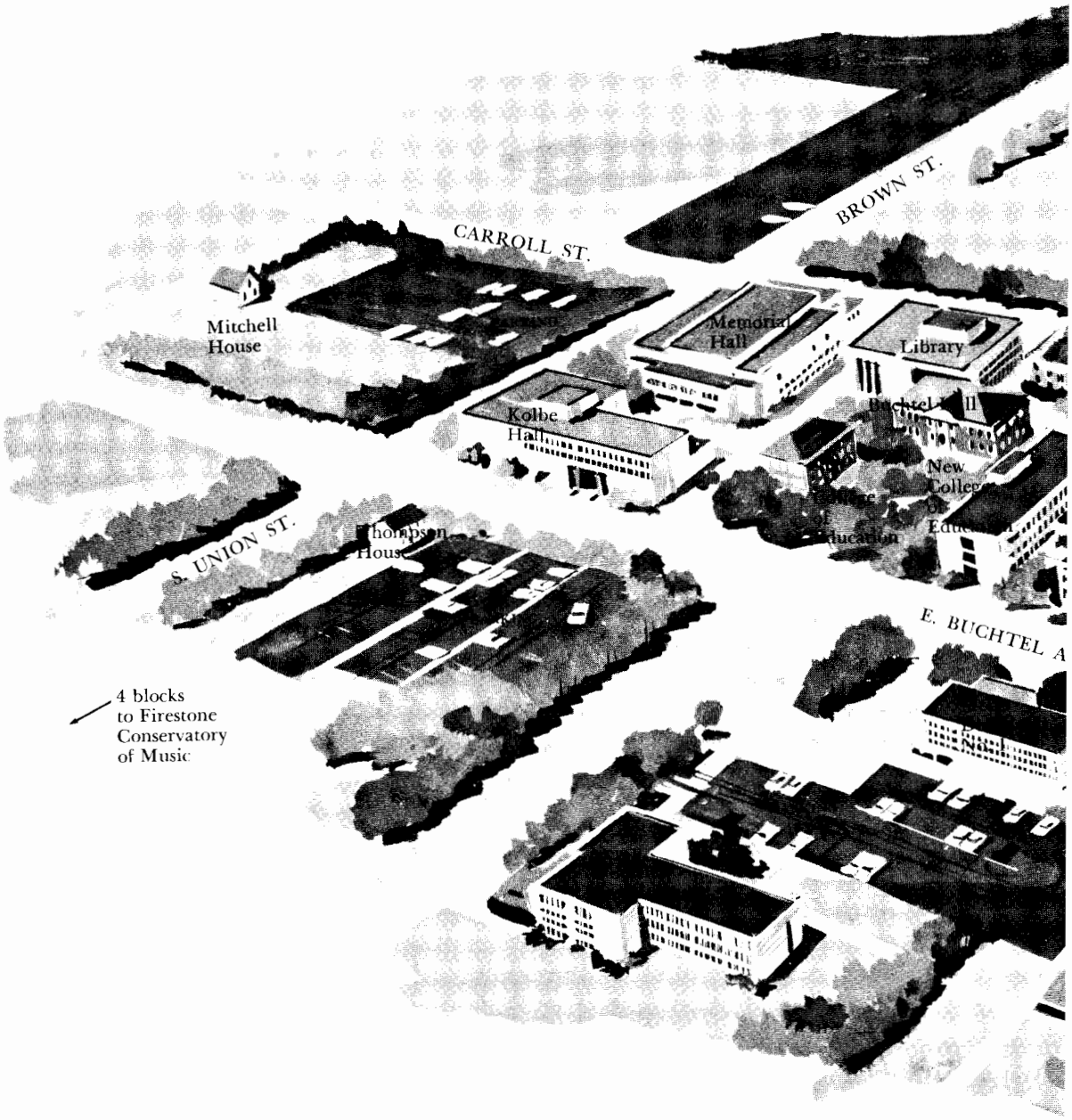
The student with ambitions to complete graduate or postgraduate courses at The University of Akron will find that he can earn a Bachelor of Law degree, a Master's in any of a dozen graduate fields or a Ph.D. in the Department of Polymer Chemistry.

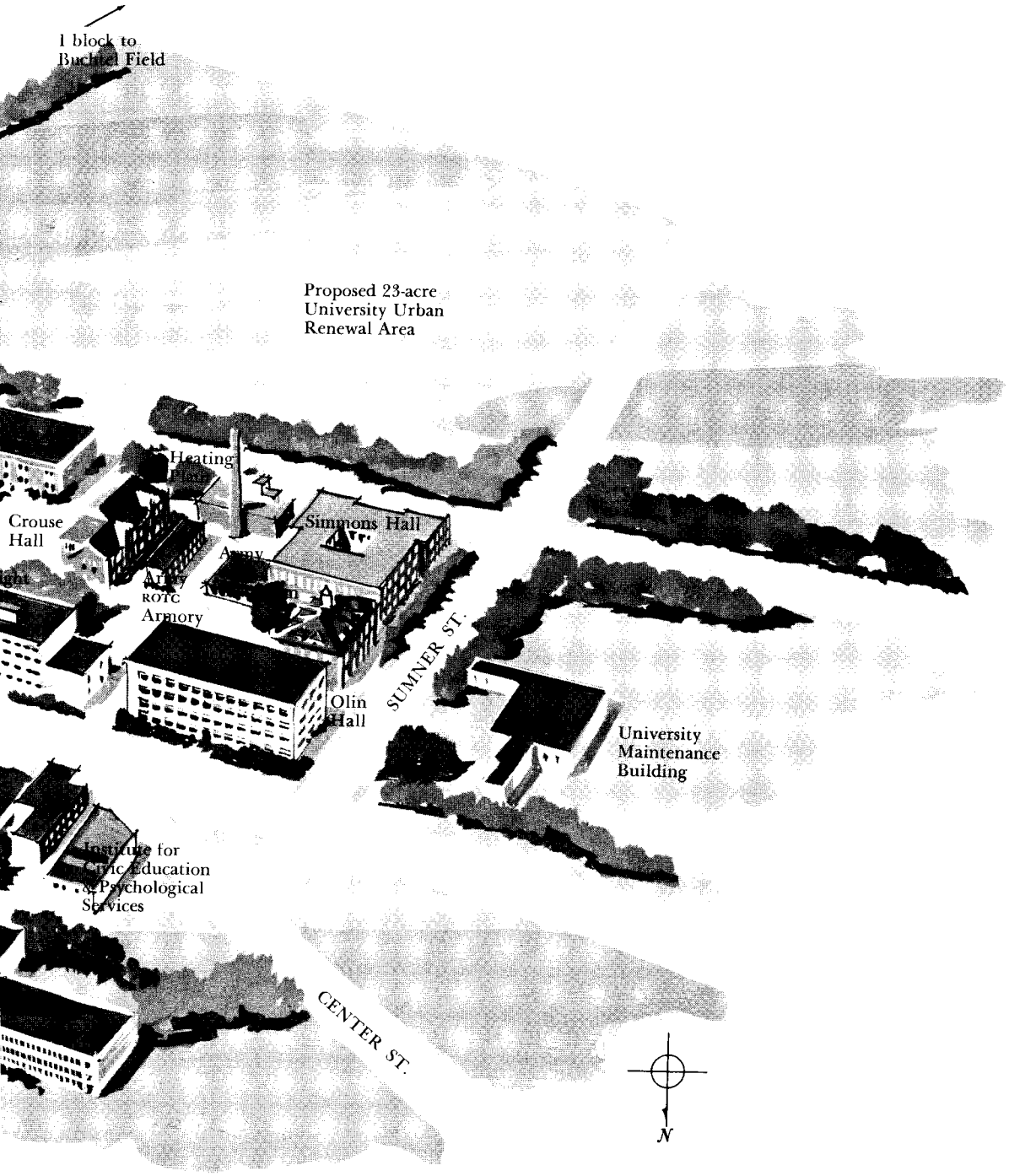
For the student who intends to meet the University requirements for a Bachelor's degree and then enter his chosen vocation, there is the satisfaction of knowing that this degree will be a valuable, lifelong asset whenever he presents his credentials to a prospective employer.

Even more important, the accreditation of the University tells a student that his courses can be expected to add to his fund of knowledge and guide him to intellectual maturity, preparing him to be a well-motivated, productive member of society.

The University is Easy to Find




BROWN ST.
CARROLL ST.
Mitchell House
Memorial Hall
Library
Kolbe Hall
S. UNION ST.
E. BUCHTEL A
4 blocks to Firestone Conservatory of Music


1 block to
Buchtel Field
Proposed 23-acre
University Urban
Renewal Area
Crouse
Hall
Heating
Plant
Simmons Hall
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SUMNER ST.
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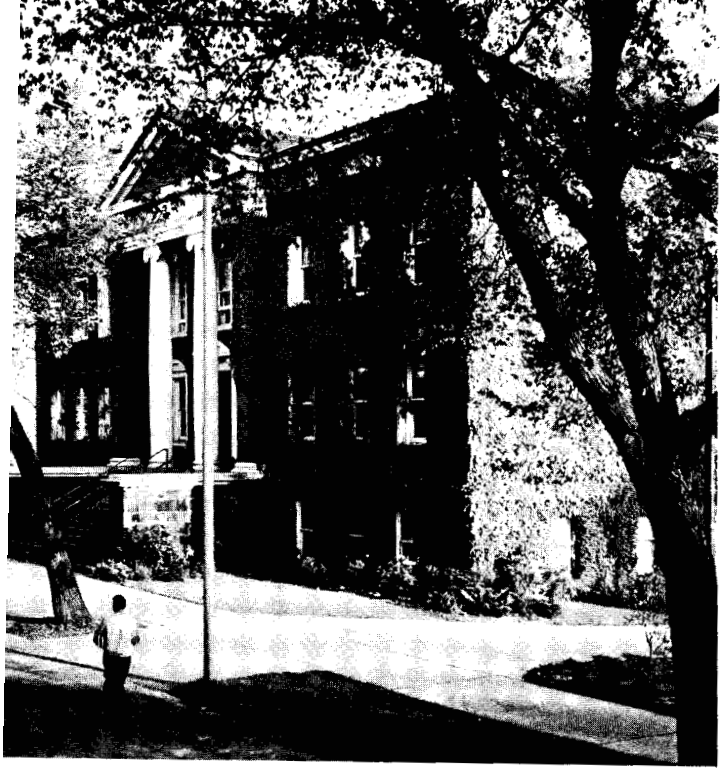


Buchtel Hall

The Firestone Conservatory

Buildings on The University of Akron campus

AYER HALL, on the northwest side of the campus, provides classrooms, laboratories and office space for the College of Engineering and testing laboratories. Named for the first Dean of the College of Engineering, Frederic E. Ayer, the developer of the co-operative work study plan.

BUCHTEL HALL, in the center of the main campus, is the Administration center of the University. Contains offices of the President, the Vice President and Dean of Administration, the Financial Vice President, the Dean of Evening College and Adult Education, and the Dean of the General College. Also, it houses the Student Personnel offices and is headquarters for the Treasurer, the Bursar, the Registrar, and the Department of University Relations.

CIVIC EDUCATION BUILDING, on Buchtel Avenue, facing the campus, is the new location of The Institute for Civic Education and headquarters of the University Psychological Services Center.

CROUSE HALL, on the west side of the main campus, is one of the oldest campus structures and is now used principally for lectures. Army R.O.T.C. supply headquarters are located here.

Knight Hall

Kolbe Hall

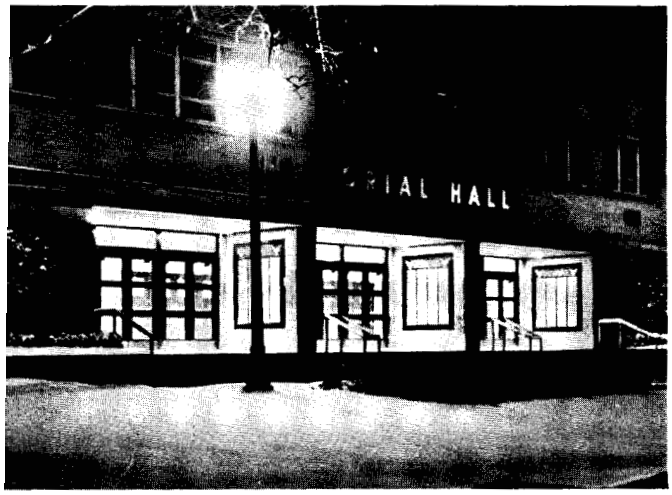
Named for a former Buchtel College trustee, George W. Crouse, Sr.

EDUCATION BUILDING, near the center of the main campus, provides office spaces and classrooms for the College of Education.

FIRESTONE CONSERVATORY OF MUSIC, a gift of the Harvey S. Firestone family, includes two buildings located at East Market and Forge Streets. Provides classrooms, practice rooms and office space for the Department of Music. Has a large auditorium for student recitals.

KNIGHT HALL, east of Ayer Hall, in the north central part of the main campus, is the location of the chemistry department, providing its classrooms, laboratories and office space. Enlarged in 1961 to provide further area for lectures and research laboratories of the Institute of Rubber Research. Named for C. M. Knight, head of the first Science Department and developer of the world's first rubber chemistry course.

PARKE R. KOLBE HALL, on the northeast corner of the main campus, is one of the newest and largest University buildings. Includes classrooms and offices of the Buchtel College of Liberal Arts. The University Theatre, The Speech and Hearing Clinic and radio and television studios are in this building, as well as the English, speech and biology departments. Named for the first president of the municipal University.



Memorial Hall

University Library

UNIVERSITY LIBRARY, between the Student Center and Memorial Hall on the south side of the main campus, is newly enlarged to house 200,000 volumes and to accommodate 700 students.

The Library houses a General Circulation area, General Periodicals Room and General Reference Room. It includes a Humanities Library and a Social Science Library with special collections for Business Administration and Education and provides spacious area for the Science and Technology Library, including the Rubber Division Library and the Rubber Science Hall of Fame, as well as volumes for the use of the Engineering College.

Unique features are the Herman Muehlstein Rare Book Room and the Charles E. and Mabel M. Ritchie Memorial Room.

The Art Department is on the third floor of the Library, with classrooms, studios and offices.

The offices and Library of the College of Law are on the ground floor. Also, on the ground floor is the Audio-Visual Education Center with a library of films and records for student and community use.

MEMORIAL HALL, on the southeastern corner of the main campus, is the recently constructed center of men's and women's physical education activities. Contains two large gymnasiums, swimming pool, classrooms and offices and houses the University Health Service Center. Dedicated to the memory of Summit County men and women who died in World War II.

MEN'S DORMITORY, #1, on Buchtel Avenue, faces the northwest area of the main campus and is a residence with accommodations for 96 men. A large recreation area is on the ground

Men's Dormitory #1

Women's Dormitory

floor. It opened its doors in 1960. Men's Dormitory #2 and a new Women's Dormitory are scheduled for completion in September, 1962.

OLIN HALL, on the west margin of the campus, houses the Home Economics and Industrial Management Departments. Named for Charles R. Olin, former Secretary-Treasurer of the University and Oscar Olin, former Professor of Philosophy.

R.O.T.C. offices are located in the Armory, situated between Simmons Hall and Crouse Hall on the west side of the main campus. Air Force R.O.T.C. offices are in a building on Buchtel Avenue, opposite Knight Hall.

SIMMONS HALL, on the southwest corner of the main campus, contains offices and classrooms of the College of Business Administration and additional laboratories of the College of Engineering. Houses the City Testing Laboratory. Named for the former University President, Hezzleton E. Simmons.

SPICER SCHOOL, an elementary school under the jurisdiction of the Akron Board of Education, is located east of the campus at Carroll and Elwood Streets. This school is used by the College of Education for student teaching assignments.

STUDENT CENTER, in the south central part of the main campus, was recently built to increase the services offered to students and faculty. Houses dining facilities, snack bar, student and faculty lounges, meeting rooms, and recreation areas, the University Bookstore, Post Office and Central Stores, Alumni Offices, Spanton Memorial Room, University Duplicating Department and offices for student publications and organizations.

One hundred thousand piece ceramic mural depicting University history—Student Center

Special Teaching Aids and Facilities at the University

In a University with several Colleges and dozens of Departments, there are always new teaching methods being put into action. Sometimes these methods are unique. Other times they are just the necessary steps taken in order to "keep up with the times." The University of Akron has many new methods in both categories. Typical of the recent strides taken to impart knowledge as widely and as thoroughly as possible are the following examples:

CLOSED CIRCUIT TELEVISION was begun in 1960-61 to utilize this modern communications medium as an effective teaching tool. Daily lectures originating in the University television studios are telecast on closed circuits to campus classrooms. This has proven to be an efficient means of presenting educational material to an expanding number of students, maintaining the values of the traditional professor-to-student relationship and adding new values of its own.

For example, many demonstrations or illustrations are more clearly visible when projected via the close-up camera than they would be if shown "live." Articles as small as a postage stamp can be clearly shown on camera, with its smallest details magnified for the class to see.

An estimated 1300 students receive part of their instruction by television. As the medium becomes increasingly flexible, it is expected that this number will increase. At the present time, 35 classrooms are equipped with TV sets which receive the closed circuit lectures.

No courses are presented entirely by television. Each television lecture is presented to a class which meets periodically with its professor "in person."

Individual Listening Room

AUDIO-VISUAL SERVICES date back to 1945 when film strips were purchased to supplement several University professors' lectures. This teaching aid has increased in value and popularity in all forward-thinking educational institutions, including The University of Akron. In 1961, the scope of audio-visual aids was conspicuously expanded when the new Library was completed because a major portion of the ground floor is designed to accommodate the Audio-Visual Center.

A library of 2000 educational records forms the basis of the audio services offered to University students. Professors make "listening assignments" in addition to "reading assignments" —especially in foreign language, English, music and speech courses.

Some records can be taken out like library books for home use; others are used in soundproof listening booths in the Audio-Visual Center. Occasionally a student is assigned to tape his own voice and listen to himself so that he may develop a clearer understanding of his own speech characteristics.

In the field of related services, as many as 35 educational films are shown on an average day at the University—many of these to students in physical education, psychology, history, geography, home economics and biology classes.

A film for the use of chemistry students was produced on the University campus and is an integral part of the basic Chemistry course.

The Audio-Visual Center makes slides which can be used to add visual impact to a University lecture or a community meeting on campus. These same photographic darkroom facilities supply slides and film strips to be used on the University's closed circuit television system.

Photogrammetric Lab

Computer Center

THE PHOTOGRAMMETRIC LABORATORY in Ayer Hall is a recently added training facility for advanced Civil Engineering students. A wall model of geometric forms which simulates hilly terrain has been built, combining cones, cylinders, pyramids and cubes of various sizes. A Polaroid camera is mounted in front of this model so that a student may have the same vantage point over the simulated topographic conditions which he would have if he were in a plane making an aerial survey.

The geometric forms are painted in various colors which simulate terrain and soil colors, since aerial photographs register different colorations and afford part of the surveying information.

This is theoretical preparation, combined with practical experience, which can eventually lead to development of increasingly fast and inexpensive methods of drawing maps and making terrestrial measurements.

Measuring rules which form an X on the photogrammetric model are arranged so that the Engineering student may recognize distortion in his photographs. He takes pictures of the wall model in pairs, since the photogrammetric measurements depend on stereoscopic comparisons of two views.

THE COMPUTER CENTER, a new adjunct to student and faculty facilities, is located in Buchtel Hall.

The University obtained the IBM digital computer so that it could be used for instruction at both the graduate and undergraduate levels. In addition, it is expected to aid in developing many research programs of academic merit.

Training sessions conducted by the Director of the Computer Center have equipped about 50 faculty members to operate this new data processing equipment. It is to be expected that it will be increasingly utilized in connection with problems in the natural and social sciences. Also, it will be used as a teaching and research tool in almost all University academic areas.

Courses in computer operation and programming are to be offered soon to students; also, conferences and seminars related to the computer's use are being arranged.

3

A Story in Three Parts . . . Past, Present, and Future

The University of Akron has a past rich in tradition.

1871 is the year in which a group of Universalists, ambitious to provide a center for religious and educational training for their young people, bought a plot of land, erected a sturdy brick building and hired seven instructors.

It was a humble yet courageous beginning. Akron townspeople were proud of the small congregation and its parent organization, the Ohio Universalist Convention, which took such an important step to improve the local academic opportunities. They gathered by the hundreds for the dedication ceremony on the Fourth of July, 1871.

A famous newspaper editor, Horace Greeley, traveled from New York City to Akron to give the dedicatory address. A picnic lunch was served, the band played and a 37-gun salute marked the auspicious occasion.

The name bestowed on this educational institution later to become The University of Akron, was Buchtel College, honoring John R. Buchtel, who gave so generously of his money and personal concern.

During the first 20 precarious years, Buchtel College received about half a million dollars from the Buchtel family. Almost a century later, the name lives on. The Administration Building is known as Buchtel Hall; one of the Upper Colleges is the Buchtel College of Liberal Arts.

The University of Akron has a present, exciting and busy.

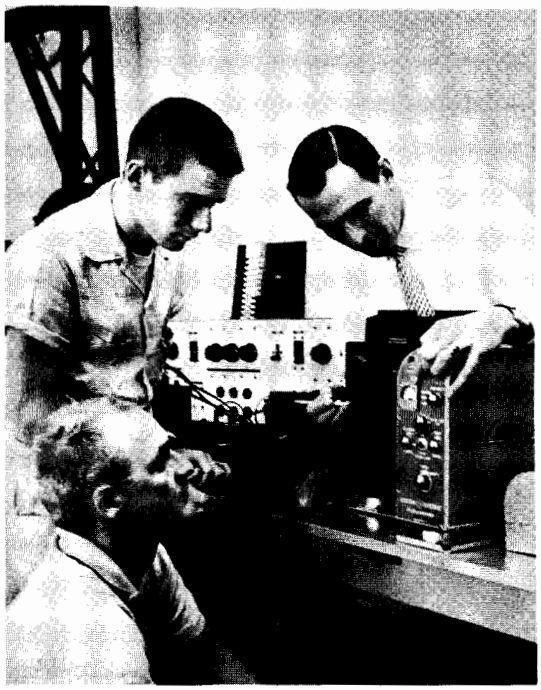
It covers an area of 20 acres and includes more than 20 buildings, representing a debt-free investment of $13,000,000.

In recent years, accommodating its share of the exploding population of campus-bound young Americans, the University has maintained and increased its facilities . . . currently affording higher education for about 7,000 students enrolled in daytime and Evening College courses.

The University includes a General College which supplies in a student's first two years a valuable cultural foundation . . . four Upper Colleges offering carefully planned academic areas of undergraduate specialization . . . an Evening College offering courses to enterprising students who hold daytime jobs but continue to increase their formal training in the evening hours . . . a College of Law . . . and a Community College serving people of all ages and interests.

On the Akron campus, the areas of instruction are necessarily wide. The rising tide of students is intent on gaining education of quality. Their demands are great, their educational needs are varied. But the University's constant goal is to meet the current needs and anticipate the student-demands of the future.

The present scope is gratifying in both variety and calibre of courses—but prospects ahead are for continued efforts always and ever for improvements, enlargements and expansion.



Electrical Laboratory

The University of Akron has a future of boundless possibility.

To serve an increasingly large student body, new buildings are now being designed to enlarge the teaching areas and strengthen the effectiveness of facilities in each of the University's several colleges.

Near the center of the main campus, a new College of Education Building is scheduled to open its doors in September, 1962. Tentative plans are to replace the former Education Building with new ones, designed to house the College of Business Administration and the College of Law. Adjoining this may be the new General College Building.

Scheduled to be completed by September, 1962, is New Men's Dormitory #2 and New Women's Dormitory #1. Also in the planning stages are central dining facilities for both men and women and at least two more dormitories.

South of the main campus is the area known as the Urban Renewal site. A project financed by two Federal dollars for each local dollar, is expected to add 23 acres to the campus. This ground, tentatively scheduled for clearing in 1963, will be used to increase classroom space and serve as a drill field for Army and Air Force R.O.T.C. and as a teaching demonstration area for health and physical education students.

East of the main campus is the intended future site of a University parking deck for about 500 cars and an interfraternity section where new fraternity and sorority houses may be constructed.

4

The Academic Community

The University has its share of brick, stone, concrete, hardwood, steel, glass and metal, put together to form buildings, sidewalks, basketball floors, test tubes and lockers. But *things* do not a campus make. *People* do. Many are students. Others are faculty. And some are Administration.

Students

The formal objectives state what the activities of faculty and Administration prove: the important person on the campus is the student.

He may arrive in early morning for an eight o'clock class or sit at his desk in a classroom at ten o'clock at night. But whatever his goal, whenever he studies, he is the focal point of plans and programs . . . the inspiration for and recipient of constant advancement of educational services at the University.

To understand the importance of students to the University, one should visit the campus at two separate times —first, when the student is NOT there and second, when the student IS there. On the first visit, one should wait till the wee small hours, since students do not call it a day when the sun goes down. Many attend lectures in the evening, practice with athletic teams or rehearse with casts of University plays. And when a prom is being held in Memorial Hall, couples stream across campus at midnight in their colorful costumes.

For a view of the University without its principal people, one must wait till well after midnight when the campus is silent and bleak. The soli-

tude is eerie. Buildings are just shadowy heaps of brick stuck together with mortar.

For the sharpest contrast, visit the campus at high noon. At midday, each campus walk and each building shows the influence of youthful energy and activity. The University is awake and alive with the sight and sound of students.

What children are to a family, students are to a university . . . proof of life, hope for the future, reason for being.

Knowing this, the University has developed its activities around the students, encouraging groups to be student-formed and student-governed whenever possible.

What Are The Akron Students Like?

A composite picture of an Akron student would be a hard one to sketch because so many subjects are taught on both ends of the conventional college courses. For instance, in keeping with the nationwide trend to develop superior young minds, the University in 1959 initiated Advanced Placement courses for the intellectually advanced high school pupils of the area. At the opposite pole, mature students, intent on gaining the Ph.D. degree in Polymer Chemistry, will also find opportunity to achieve their ambition on the Akron campus.

But if one limits his attentions to the typical undergraduate, the following capsule comments will draw a remarkably true picture of the students at The University of Akron:

- Akron students show by appearance and action that they attend a university which is in a forward-thinking, prosperous community. The students are abreast of trends and clearly a part of national collegiate interests, both curricular and extracurricular.
- Akron students clearly show an enthusiastic response to the University's crusade for scholars; they avail themselves of scholarships, fellowships and other grants and loans.
- Akron students enjoy the security of knowing that if they wish to do so, they can anticipate a future life in the Akron area, since there are many opportunities for employment in industrial and professional fields which are close to the campus.

- Many Akron students take advantage of their chance to find gainful occupations, either full or part-time, while they are attending the University. This adds impact to their knowledge of the world and adds to their awareness of higher educational values.

- Akron students show the results of their being enrolled in a University which has a forceful course of study in its General College. Even those students with specialized professional preparation have a broad cultural base of knowledge. For instance, in a recent University production of *Othello,* the leading rôle was enacted by a student in the College of Engineering.

- Many Akron students have the unique advantage of living with their families and yet adding to their cosmopolitan circle of acquaintances. Akron, as "the rubber capital," attracts many campus visitors and increasing numbers of foreign students. New dormitory facilities make it possible for nonresident students to add a valuable ingredient to the atmosphere of the University scene.

- Akron students live in an area of the United States which is on the "culture trail." This means that they have frequent access to plays, lectures and professional performances either in or near Akron. This is a major cultural asset and a minor social advantage; for instance, prom committees can hire big-name bands without excessive trouble because the University is on the transcontinental route of many such professional organizations.

Do Akron Students Have Fun?

Yes. Campus activities, extracurricular projects and a wide variety of social events are a standard part of student life at The University of Akron.

Academic efforts are well organized so that students maintain high scholastic standards and still conveniently schedule their leisure time with activities to enrich the "whole person" of each individual.

Faculty

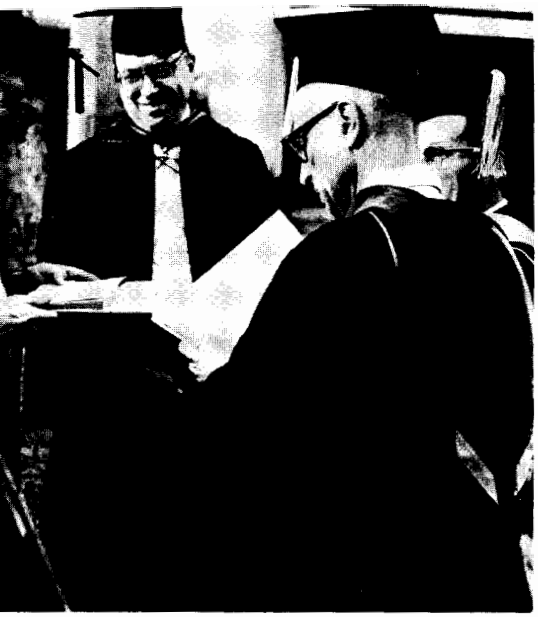
In an educational institution which has the word, "excellence," as its guide-word, only a carefully selected group of men and women could inject life into this philosophy or put true meaning behind the word.

At The University of Akron, about 250 people have this responsibility. They face the students, imparting knowledge day-by-day with the enduring patience of good teachers.

These 250 people comprise the Faculty. They are well-trained, friendly and dedicated. Their individual standards of achievement are necessarily high. Through their untiring efforts to impart knowledge of the world and a grasp of its culture, the students gain awareness of their own potential abilities.

This is education in action. A teacher teaches. And if he does it well, his students learn . . . about themselves and about the world.

At the University, there is no "typical teacher." Each professor functions



as an important part of an organized, directed group. But he exerts his skills in his own individual manner. Although he is part of a close-knit campus community, he is not part of a cloistered, segregated Ivory Tower clique.

Even his living conditions reflect the heterogeneous aspect of the Faculty. There is no fenced-in compound where faculty families live together. There is no in-bred social or professional attitude—but instead, the strongly personal, deeply America-flavored uniqueness of the individual. This variety of outlook which flourishes at the University is of firm cultural value to the Akron student. When he graduates, he can expect to face a diverse, complex world. It is only logical that he should learn of its many facets through the influences of a versatile Faculty.

It goes without saying that the old bromide about "absent-minded professors" has become an outmoded phrase at the University. But, the Akron professors are not "absent-minded" at all. They are not functioning in an academic sphere removed from the world, but in a climate reflecting current progress in these modern times. They could be described as mature versions of the students they teach . . . coming from busy American homes where an education had to be worked for and was properly respected, once it was earned.

Members of the Faculty work cooperatively together and their efforts maintain the consistent, unified pattern of progress at the University. Whether they teach poetry or polymer chemistry, their bond of congeniality is their adherence to the expected standard of achievement and their dedication to the common effort of higher education.

Some Pertinent Facts About The Faculty

ꕥ Many Akron professors have studied at institutions whose reputations are recognized all over the world. A few of them are: Columbia, Johns Hopkins, Ohio State, N.Y.U., Purdue, Chicago, California, Minnesota, Wooster, Yale, Northwestern, Princeton, Utah, Cornell, Cincinnati, Indiana, Harvard, Temple, Syracuse, North Carolina, Iowa, Colorado, Carnegie Tech and Michigan. Outside of the U.S.: The Universities of Manitoba, Frankfurt, Halifax, McGill, London, Tübingen, Jadvpur and The Sorbonne. This variety of background of educational training is part of the University's richness.

ꕥ Most Akron professors are in the most vigorous, productive years of their lives. Average age is 45.

Akron professors have academic records which show that they are equipped with a depth and breadth of scholarship. About half of the Faculty group have earned their Doctor's degrees and about three-fourths have earned their Master's degrees.

Akron professors are expected to be forceful in their academic areas, both in and out of the classroom, and in return, they enjoy a professional security above the national average. The salary schedule, determined by academic rank, (i.e. instructor, assistant professor, associate professor and full professor) is considered excellent by standards of comparison with other colleges and universities. Indefinite tenure can be achieved by a professor who has been on staff for three years. And his post-professional years are planned in accordance with the State Teachers' Retirement System of Ohio.

Many Akron professors are adding to the University's and their own stature by turning their talents into fields of research. This is classified under the headings of both applied and pure. It is made financially possible through grants by nationally known industries, government agencies, foundations, local firms and individuals, as well as by the University itself to the individual faculty member. Some of the projects are in these areas: polymer physics and study of the atom . . . the life of Mark Twain . . . the effect of teaching machines, with observation of children learning this way being recorded on film . . . training program for police officers . . . study of heat transfer by fluids . . . study of the American Indian . . . psychological testing improvements . . . and research to gain increased knowledge in the field of rubber chemistry.

Akron professors are active in classrooms and laboratories; they are also busy at their desks. In 1960 alone, Faculty members produced more than 70 published articles in periodicals of a popular or scholarly nature.

Administration

In defining their responsibilities, the members of the Administration of The University of Akron are traditionalists, using the word as Webster describes it, with its derivation traceable to the Romans. *Administrare* is the Latin word meaning "to serve." It

is this that the Administrators of the University try to do.

Another way of explaining the function of the members of the administrative staff is to describe them as "middlemen"—between "the people" and "the students and faculty members." Their goal is to satisfy the educational needs of the community by devising the operational pattern for those who are on the campus.

In the broadest sense, the determining force of all academic action at the University is the citizenry of Akron. It is the people themselves who vote financial assistance in the form of tax levies. It is the people themselves who send their children to be the majority of the University's students.

The public responsibility for educational advancement at the University is delegated to specific individuals. According to the pattern, the University is governed by a Board of Directors, consisting of nine citizens who are appointed by the Mayor for overlapping terms of six years.

This Board functions as the legal and policy-making body of the University while the University Council functions as the academic legislative group.

On campus, providing the necessary link between the public and its University, are a number of people who function as part of the Administration. This includes a President, two Vice Presidents, eight Deans and a Treasurer, Bursar, Registrar, Librarian, Purchasing Agent, Director of Student Personnel, Director of University Relations and Director of the Institute of Civic Education.

The Adviser of Men, Adviser of Women and Director of Housing are also part of the administrative table of organization.

When an academic step affecting students or faculty members is to be considered, it is the first-mentioned members of this administrative group who must lead the way in deciding *if* . . . *when* . . . and *how* something should be done.

The essence of administration in a great institution of higher education is leadership. The administrators at The University of Akron have been selected on a basis of their experience and professional preparation with this prime characteristic in mind.

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Educational backgrounds of the members of Administration are widely diversified, but in quality, their academic records are as thorough and specialized as those of faculty members.

In fact, most of the leaders in Administration have previously been fulltime teachers on the college level and many of them still lecture at the University in fields covering mathematics, astronomy, business administration, engineering, teaching, psychology, history, social and natural sciences and physical education.

For this reason and by the very nature of their present responsibilities, Administration members are not far-removed or unaware of the professor-student relationship. This is a value to the University since most of the administrative duties are concerned with planning for the welfare of the two dominant campus groups . . . faculty and students.

5

How to Enter, What to Do

A common malady of young men and women who are ambitious to go to college is "Pre-Admission Jitters." When they reach the age of 16, either at the advice of a parent or a high school counselor, they are told to plan for the future. This is a good idea. But sometimes in the process of planning, they put themselves on mailing lists of colleges and universities and begin to get catalogs, brochures and promotion pieces in the mail. They are bombarded with lists of entrance requirements. Courses sound difficult. Academic standards sound high. A college education sounds expensive. And in general, The College Door seems to be more often closed than open.

The spectre of a Closed College Door should rightfully "haunt" a prospective college or university student . . . but only so far as it causes him to flex his intellectual muscles, crack the books harder and determine to make himself eligible to enter when the time comes.

The University of Akron suggests that these following steps may be helpful in bringing peace of mind to the prospective student of a college or university:

1) Visit the campus where you hope to enroll. You will get a more valuable impression from the first-hand view than any you could gain from a printed page.
2) Learn some of the basic academic words and phrases which all colleges and universities use.
3) Be sure that your high school studies constitute an acceptable college preparatory course for the college or university you hope to enter.
4) Study the listed fees and expenses at the campus of your choice. The specific statement of fees gives you an accurate picture so that you can begin to make financial plans . . . or arrange to get a job.

In making these four steps easy to follow, the University has these four suggestions, directly related to the steps listed above:

1) It is a University policy to welcome prospective students on the campus at all times. Conducted campus tours can be arranged for individuals or groups.
2) For the development of a student's basic academic vocabulary, the University submits a list of words and phrases.
3) To clarify in definite terms the courses which are required of every high school graduate who expects to enroll at the University, a list of college preparatory studies is presented.
4) So that the "dollar and cents" requirements are readily understood, a concise listing of fees for the University student is briefly outlined.

Definitions of Academic Words and Phrases

ADMISSION—the process of taking tests, filling in forms and filing documents prior to actual registration for courses. This is handled in the Admissions office.

REGISTRATION—the process of being formally entered on class lists of specific courses. At this time, a student pays his fees to the Bursar.

FEES—an inclusive word referring to money (tuition and/or maintenance) which all students pay to the University. Fees go into a fund which takes care of faculty and staff salaries, University supplies, upkeep of the institution itself, etc.

TUITION—the fees paid by nonresident students only.

MAINTENANCE—the fees paid by both resident and nonresident students. Explanation: *a nonresident pays both maintenance and tuition fees because he has no Akron domicile. Therefore, all his fees must be paid direct to the University. In contrast, a resident's share of fees is paid in part by indirect means, through tax payments in the city of Akron.*

APPLICATION FEE—a check, money order or cash in the amount of $25 which must accompany a new student's application for admission to day courses at the University. This fee is in effect only for the semester for which the student applies and is non-refundable except when the student is denied admission to the University. When a student is accepted, the amount of his application fee is regarded as a down payment on his fees and is deducted from the total amount assessed at the time of registration for his first semester, provided that he enrolls in the semester for which he applied.

SEMESTER—an academic term of study which is half of a school year. At the University, Fall semester classes in 1961 are scheduled to begin on September 18. The Spring semester classes are scheduled to open on January 29, 1962. Fees are paid by students on the semester basis, as they register for courses.

REGULAR STUDENT—one who meets the Admissions requirements and follows a regular schedule which usually includes an academic load of 16 credit hours. Permission to be other than a regular student must be especially granted by University authorities.

SPECIAL STUDENT—one who does not meet the Admissions requirements but is admitted by petitioning the Dean concerned for permission to take courses for which he is qualified by certain abilities or maturity. A special student may not take more than 15 hours unless he gains official transfer to the status of a regular student.

UNDERGRADUATE STUDENT—one who has not attained any academic degree and is enrolled in credit courses.

GRADUATE STUDENT—one who holds a Bachelor's degree from an accredited institution and is enrolled in one or more courses on the graduate level.

POSTGRADUATE STUDENT—one who holds a Bachelor's degree from an accredited institution and is enrolled in credit courses on the undergraduate level. (e.g. Law students are postgraduates.)

CASUAL STUDENT—one who may or may not hold academic degrees but desires to enroll in certain selected graduate courses, gaining admission by meeting requirements of the Graduate Division.

AUDITING STUDENT OR AUDITOR—one who enrolls in a course, with the permission of his Dean, but does not receive a grade on his official record. Permission to audit a course is granted if a student has a record of good scholarship or if he has taken and passed the particular course previously or if his individual experience qualifies him to take the course.

WITHDRAWING FROM A COURSE—the *right* way to leave a course because a withdrawal does not count on a student's permanent record. To withdraw, a student must have the permission of his Dean.

DROPPING A COURSE—the *wrong* way to leave a course. If a student leaves a course without the permission of his Dean, the course goes on his record as one attempted and failed.

CREDIT—the unit of academic value placed on every University credit course. A student does not just sign up for classes, as he did in high school. Instead, he signs up for classes with an exact number of credit hours, based on the number of hours which the class is in session each week. For instance, Written English is a three-credit hour course, which means the class meets for three hours of instruction per week during the semester.

STUDENT ACTIVITIES CARD—a plastic, wallet-size identification card with a photo of an individual student imprinted on each one. It is a "pass" to football games, basketball games, University plays and Town and Gown performances. It is required to be shown when registering for courses, when using the University library, etc. This card is given without additional charge to each student after he pays his required fees for credit courses. ("Pass" privileges available only to students carrying 8½ hours or more.)

Required College Preparatory Course for University of Akron Students

4 units of English
1 unit of mathematics
3 units of social studies
(including American History)
1 unit of natural science
1 additional unit from the above
Additional subject requirements for students planning to major in:

SCIENCE, PREMEDICAL OR PREDENTAL
1½ units of high school algebra
1 unit of plane geometry

ENGINEERING
1½ units of high school algebra
1 unit of plane geometry
½ unit of solid geometry or
½ unit of trigonometry
1 unit of physics or chemistry

INDUSTRIAL MANAGEMENT
1½ units of high school algebra

The above courses are required for students attending an institution of higher learning for the first time. If a prospective student completes the outlined courses as specified by the University and has been graduated from a regionally accredited Akron secondary school, he is classified as eligible to enroll. Other applicants for admission may be admitted upon the basis of the quality of their secondary school (high school) work and their standing in the counseling tests as given by the University.

Students applying for admission when they have formerly attended other institutions of higher learning are eligible to transfer to the University if they present a satisfactory scholastic record as judged by The University of Akron officials and if the students should be eligible to re-enter the institution from which they desire to transfer.

Admission is necessarily limited by the University's capacity to provide for students' educational objectives. The University reserves the right to approve admission only to those individuals whose ability, attitude and character promise satisfactory achievement of University objectives.

Undergraduate Expenses for a Semester at the University

Fee for an undergraduate resident of Akron taking a regular load of 16 credit houfs $176.00
Fee for an undergraduate nonresident of Akron taking a regular load of 16 credit hours $352.00
These fees are explained as follows:
Maintenance for each undergraduate credit hour, paid by both resident and nonresident student $11.00
Tuition for each undergraduate credit hour, paid by nonresident student only $11.00

(The above fees do not cover any expenses for books, food or housing.) Estimated expenditures for books, food and housing as follows:

1) It is estimated that an average undergraduate pays about $50.00 *per semester* for books.

2) It is estimated that an average undergraduate pays about $300.00 for

food *per semester* if he does not eat at home with his family. The University has a cafeteria and snack bar with reasonably priced food available to students, faculty members and visitors.

3) It is estimated that an undergraduate pays about $150.00 *per semester* for housing, if he does not live at home with his family. This is the amount which either a man or a woman student pays *per semester* for a room in a University residence.

A prospective student or an enrolled student at the University has several possibilities of receiving financial aid which can facilitate his earning a college degree.

Information about grants can be obtained from the office of the Chairman of the University Committee on Fellowships, Scholarships, Awards, and Loans, located in the offices of the Dean of the General College. Further advice to students interested in financial assistance is available in the office of the Director of Student Personnel.

Here is a Step-by-Step Description of the Way to Gain Admission to The University of Akron:

1) GET AN APPLICATION FORM FROM THE ADMISSIONS OFFICE. If your request is by mail, use this address: ADMISSIONS OFFICE, The University of Akron, Akron 4, Ohio. FILL IT OUT AND RETURN as soon as possible. If you are applying for admission to the University in order to take regular *daytime* courses, include an application fee payment of

$25. This will apply to the tuition and maintenance fees assessed at time of registration in the semester for which an application fee has been sent. It will be refunded in case of rejection. Important: Registration for day classes usually closes a week before the Fall Semester opens.

2) ASK AN OFFICIAL OF YOUR HIGH SCHOOL TO SEND YOUR TRANSCRIPT TO THE ADMISSIONS OFFICE. This record of your secondary school standing must be received at least 10 days before the beginning of the semester in which you choose to enter the University. This record must be sent by mail and not brought by the applicant himself.

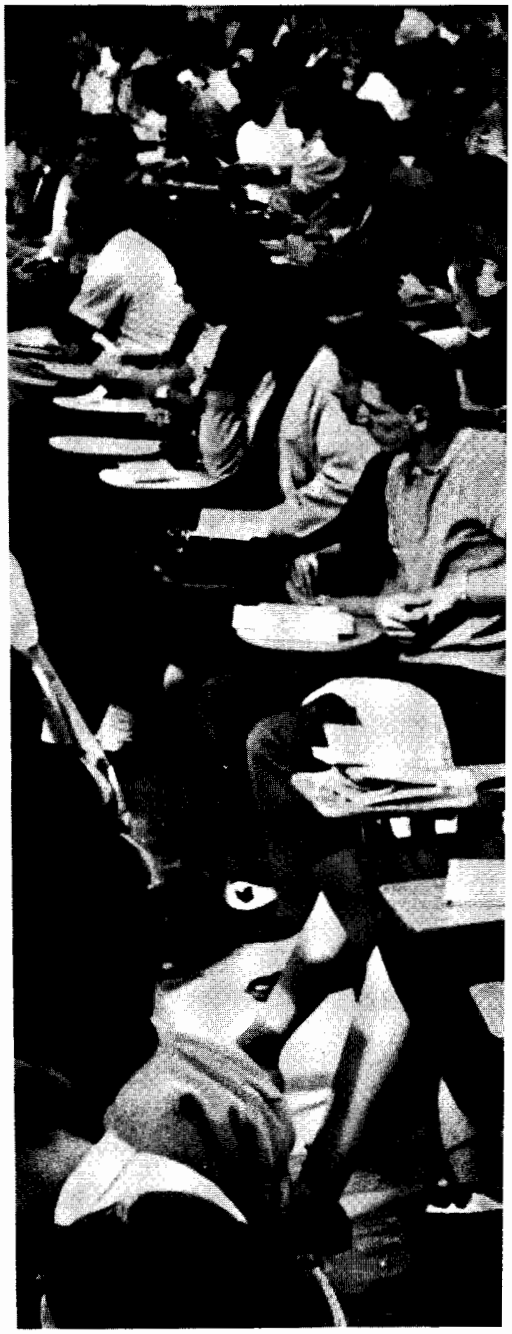
3) TAKE COUNSELING TESTS OF THE UNIVERSITY at times and places specified by University officials. These are required before an applicant is formally admitted. Out-of-state applicants may submit test scores for School and College Ability Tests, American Council on Education, American College Test or College Entrance Examination Boards to satisfy the requirements temporarily.

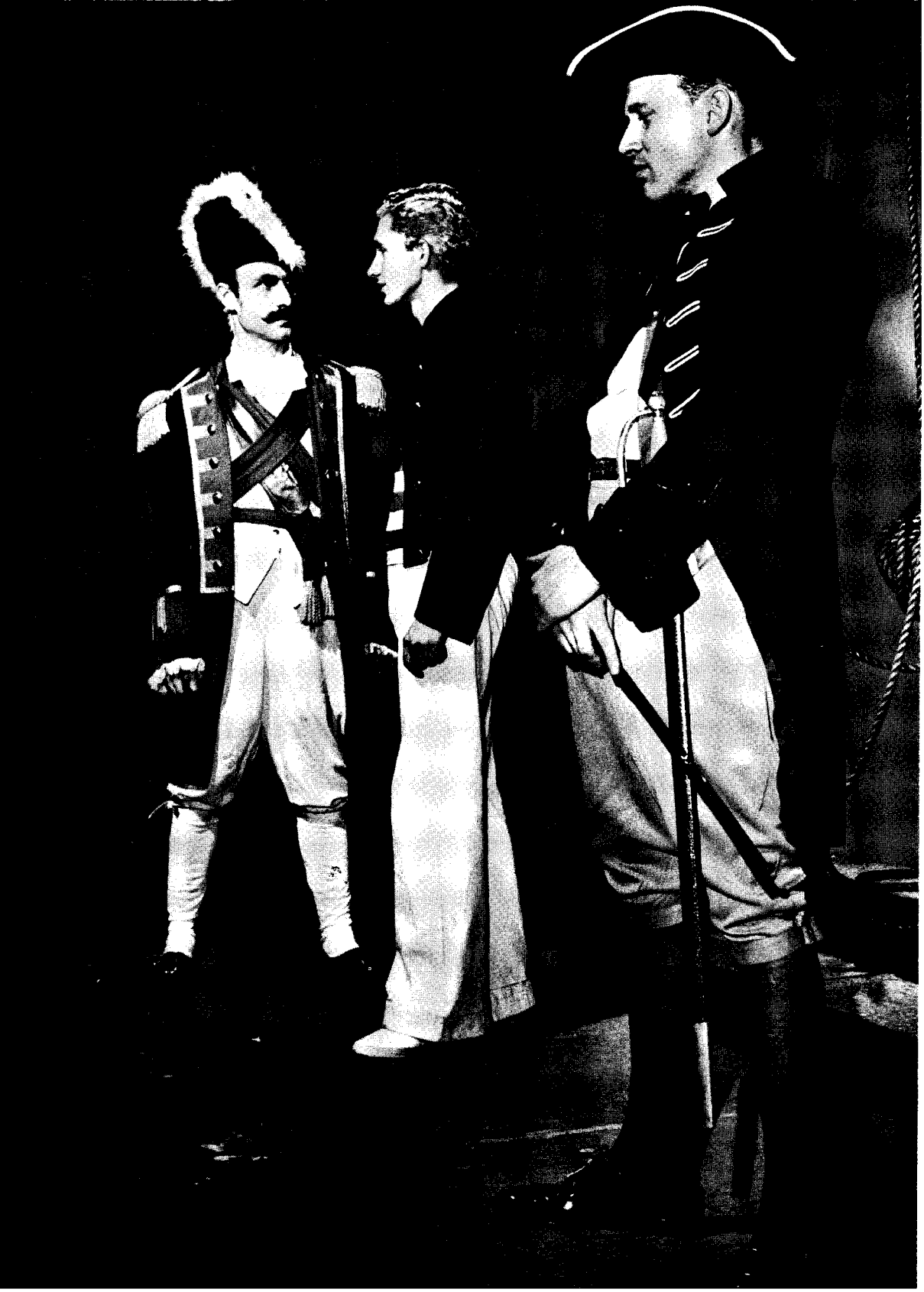
4) GET A UNIVERSITY HEALTH RECORD CARD FROM THE STUDENT PERSONNEL OFFICE (Buchtel Hall). Take it to your family physician and after he has filled it out, return the card to the University. You should take it to the Health Office in Memorial Hall where these records are kept.

5) After you have completed the above-outlined steps, YOU WILL BE NOTIFIED TO REPORT FOR COUNSELING in the Student Personnel Office. At this time, your suitable courses of study will be chosen and you will sign up for these courses of study. Also, at this time, you will be told the amount of fees you will be expected to pay to the University.

(All checks should be made payable to: The University of Akron. All checks should specify *what fees* and for *which student* payment is being made.)

6) FOLLOW THE ORIENTATION COURSE AS ARRANGED BY THE STUDENT PERSONNEL OFFICE. The week before the formal meeting of classes each semester is Orientation Week for new students. During this time, you will learn about the University and the services it offers as well as about the faculty and students.





6

Students Outside of the Classroom

College life is real and earnest. Students have to study now as never before. They attend classes and are constantly faced with hurdles labeled "mid-terms", "term papers" and "finals." And at the end, they participate in an impressive ceremony called Commencement, complete with cap, gown and diploma.

All of this comes under the heading of "curricular." A word expert will explain that this is derived from the Latin word, *currere,* meaning "to run." A student at the University will agree that things have not changed much since the days of ancient Rome because they are kept running to finish assignments, get the books they need from the Library and decipher their own lecture notes.

But—even the Romans knew that there was more to higher learning than work, work, work. Maybe that's why the word, "extracurricular" was coined. Everything which prevents Jack from becoming a dull boy comes under this heading.

This phase of University life can be described, but there cannot be a comprehensive list because of the scope of "extracurricular" activity. Let it be sufficient to say that all students have a chance to gain in poise and maturity, to improve in social grace and develop their personalities, to choose their own activities or develop new ones, if they wish.

Everyone at The University of Akron can be a member of some group, team, club or committee. A student can participate in songfests, Student Council elections, pledge weeks, rush parties, sorority teas, fraternity bull sessions, student meetings of professional societies, Casbah skits, kaffee klatsches, University radio workshops, Town and Gown concerts, military balls, ox roasts, Father's Day Festivities, intercollegiate sports, intramural sports, May Queen crownings, Forensic Union matches, University plays, Music Department concerts or recitals, Honors Convocations, Evening College Jazz sessions, Founders

Day programs, homecoming dances, band practices, newspaper staff meetings, wrestling matches, swimming meets, soccer games, cross country running races . . . or just plain dating!

How Are Extracurricular Activities Controlled?

An Extracurricular Activities Committee exercises control over most of the University groups. Its members represent the various colleges and study areas and also the students themselves. At present there are eight faculty members in addition to the presidents of Student Councils, both daytime and Evening College, and head of the Women's League, serving as members of this committee.

There is a necessary limitation on the individual student so that he won't become involved in so many extracurricular activities that he slights his studies. For this reason, a standard of grades must be maintained before a student can enter some of the more time-demanding extracurricular fields. First semester students must be carrying at least 10 hours; other students must have completed 10 hours with an average grade of 2.0 (C).

If a student meets these requirements, he may be considered for appointment for activity in these campus groups:

The Buchtelite (University newspaper) staff; *Tel-Buch* (University yearbook) staff; music or speech productions; radio and television workshop staffs; Student Center managerial positions; Memorial Hall (physical education and health center) staffs; majorettes; cheerleaders; Homecoming Queen and Crowner; May Queen and Crowner; Commissioner of intramural sports.

Also, many student groups have faculty advisers. For instance, the student publications function with the assistance of a Publication Board made up of the University Editor, the Director of Student Personnel, a faculty member in charge of the Student Activity Fund, editors of *The Buchtelite* and *Tel-Buch*, and presidents of both the Student Council and the Women's League. In addition, the Director of University Relations acts as an *ex officio* member of the Board.

Is There Any Spiritual Guidance Available to Students?

Two chaplains are available to members of the student body and faculty, offering individual and group guidance services.

For Protestants and members of the Eastern Orthodox faith: A minister of a Protestant denomination has been appointed by the Akron Area Council of Churches to serve as a full-time spiritual adviser to the students who have indicated affiliation with a Protestant church or membership in an Eastern Orthodox congregation.

The Protestant chaplain's offices are in the Student Center and he is available each weekday for consultation with individual students or student groups. He arranges for discussions and forums and serves as spiritual counselor for those facing individual problems.

For Catholics: A priest is in residence at Newman Hall, branch of the national Catholic club for college students, about one block from the main campus, at 143 South Union Street. He offers Mass each day at noon and conducts formal classes for Catholic students, supplying spiritual guidance to aid them in utilizing most effectively the temporal knowledge which they gain in their college years.

Newman Hall has an assembly room, library, kitchen and conference rooms where students may study or hold discussion groups. The doors are open from 7:30 a.m. to 10:30 p.m.

This center was established for the benefit of the Catholic students taking daytime courses at the University, authorized and supported by the offices of the Bishop of the Diocese of Cleveland.

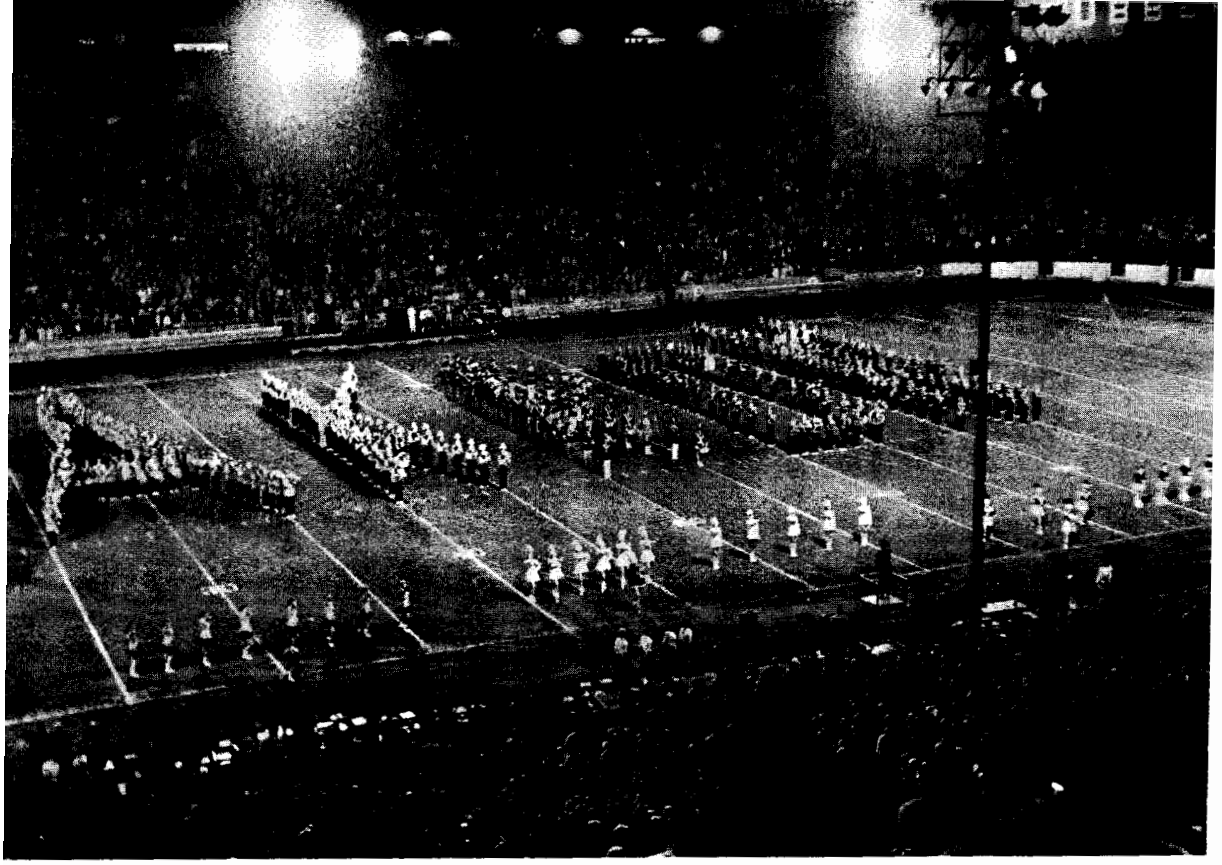
What About Sports at The University?

A wide program of sports for both intercollegiate and intramural participants is maintained at the University.

Competition is keen, especially in the intercollegiate athletic events, but it is stressed that proper focus is to be maintained at all times on principles of basic good health and hygiene; the philosophy is for emphasizing qualities of honor and sportsmanship in all players.

Nine sports are arranged in accordance with the Ohio Athletic Conference. Intercollegiate games, meets and matches are scheduled annually with other members of this Conference for the following athletic teams: football, cross country, basketball, swimming, wrestling, baseball, track, golf and tennis.

Other Ohio Conference members



are the following educational institutions: Oberlin, Otterbein, Muskingum, Kenyon, Hiram, Marietta, Heidelberg, Wittenberg, Mt. Union, Ohio Wesleyan, Wooster, Capital and Denison.

Intercollegiate competition is planned by the R.O.T.C. staffs for The University of Akron rifle team which is a member of the Lake Erie Conference.

Soccer has recently been added to the intercollegiate participation list and matches are with other teams in the Midwest Conference.

Practice area for athletic teams is at Buchtel Field which is located four blocks south of the main campus.

Students desiring information about eligibility to participate should consult the Registrar.

All athletic contests are under the control of the Director of Athletics (offices in Memorial Hall) and the Faculty Committee on Athletics. This group sets the rules for awards, honors and appointments in accordance with the Ohio Athletic Conference.

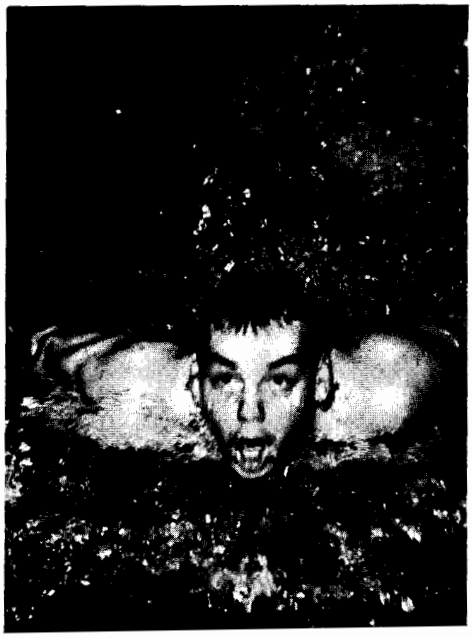
Memorial Hall, built in 1954, honoring the war dead of Summit County, has two spacious gymnasiums and a regulation size (75'x35') swimming pool for the use of both men and women.

Members of the student body and alumni have pride in the Hall of Fame in Memorial Hall, honoring the "greats" in Akron sports history.

What about Student Accidents or Athletic Injuries?

The University constructs every facility with high safety standards and carries out this principle of maintaining physical security for its students by following stringent accident prevention measures. However, The University of Akron assumes no responsibility for student accidents incurred while attending or participating in classroom, gymnasium or laboratory work.

First aid services are available in Memorial Hall, readily accessible to the entire campus; Red Cross lifesaving classes are an integral part of the health and physical education programs, but the University assumes no legal responsibility or obligations for the expense of treating injuries received by athletes while training for or participating in intramural or intercollegiate sports unless the treatment is first authorized by the University medical officer for athletes.



What's the Prospect for Students Interested in the Performing Arts?

University students have ample opportunity to develop their abilities to face the public and talk "on their feet"—either to "live" audiences in plays, discussions or debates or to the unseen audiences who tune them in on their radio or TV sets.

The center of dramatic activities is in the University Theatre. This is located in Kolbe Hall which was built in 1955, honoring the former President, Dr. Parke R. Kolbe. Facilities are of the finest for both the on-stage actor and the backstage technician.

Each year, four or more major productions are presented. Open tryouts are held for students in all of the Colleges of the University.

There are outlets for those who aspire to write, produce or act in experimental theatre, also. In 1961, a series of one-act plays was presented; these plays had student directors and student casts.

Forensic and debate teams compete intercollegiately. In addition to this, the well-equipped Speech Therapy Center is in operation in Kolbe Hall.

For those who want to gain valuable experience in the mass media, the University has complete facilities for telecasting and broadcasting. It is in the University Television Studio that all Closed Circuit Television lectures originate. The Radio Workshop presents daily programs which are written and produced in the Speech Department and are broadcast to the public over WAKR-FM.

Do Musicians Have Opportunities to Perform?

There are many campus musical groups which perform for the large University functions and also present instrumental and vocal concerts and recitals.

Students may try out for places in the marching band, orchestra or brass choir, if they have talent in playing a musical instrument.

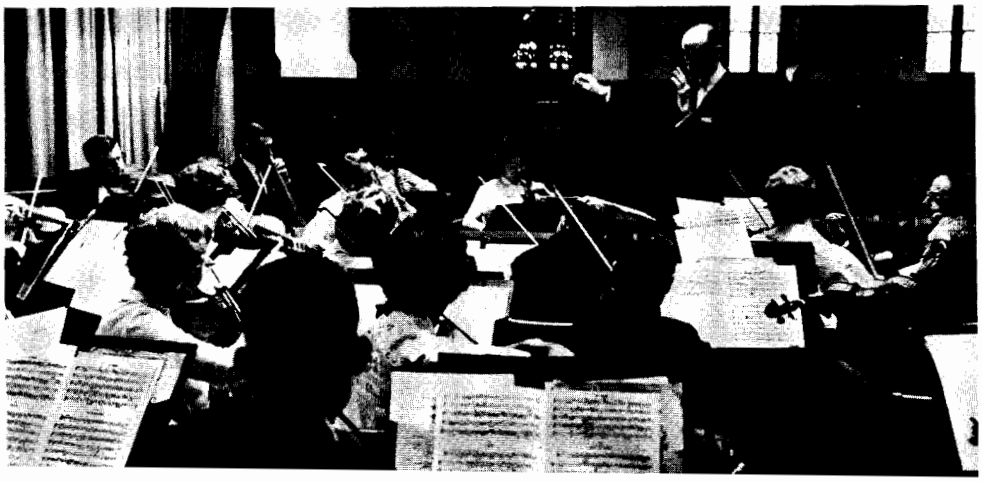
Vocalists may apply for membership in the University Singers or the Madrigal Singers.

About 20 recitals by individual music students and faculty members are presented each year in the Firestone Conservatory, which includes classrooms, an auditorium and several reception areas which are used by hospitality committees in connection with recitals.

Students with musical ability will find a wide variety of instruments including a three-manual classic-style Moller organ and a concert-style harp, owned by the University and offered to students for use in the instrumental groups or as adjuncts of private or group instrumental lessons.

Many off-campus groups avail themselves of the musically trained students and during the course of an academic year, about 50 performances will be presented by instrumental ensembles or singing groups.

Private lessons are offered to University students and also to non-campus musicians, with payments on a per-lesson plan, instead of the conventional semester arrangement as used for other courses of instruction.



How About Fraternities and Sororities at The University?

There are nine national sororities for women and nine national fraternities for men on the University campus. Although these are University-supervised and their major social events are chaperoned, the selection of membership and government of each organization is the responsibility of each individual group in accordance with rules of the Panhellenic Council and the Interfraternity Council.

Each sorority and fraternity schedules about five major social events during an academic year, many of them taking place in their own houses and some of them utilizing the facilities of the main campus. Proms are often held in Memorial Hall and big-name bands are frequently brought in for these events.

Members of sororities do not have residence facilities in their houses but eight of the fraternities have housing for men. Appointment of housemothers or housefathers is by the organization itself. Most fraternities and sororities have faculty members or faculty wives as advisers or honorary members.

Fraternal organizations contribute to the "campus color" at the University, conducting a "Greek Week" and constructing elaborate floats for special parades at the time of the Acme-Zip game in the Fall and May Day in the Spring. During the year there are several competitive events such as Casbah Skit Night and the Interfraternity Songfest.

What Are the Student Publications at The University?

THE BUCHTELITE . . . a weekly newspaper with about 30 issues in each academic year. This is the campus "voice" with straight news, columns, and photographs describing campus events. It is published tabloid-style on regular newsprint, distributed to students free of charge on newsstands located in various spots on campus. There is usually a staff of about 45 students working on this publication.

TEL-BUCH . . . a yearbook with a comprehensive editorial and photographic coverage of student life at the University. This is an impressive publication of about 200 pages. Its staff usually numbers about 20 students. A few months after the closing of each academic year, students may

receive their editions of the annual, on presentation of their Student Activities Cards. The *Tel-Buch* is one of the favorite souvenirs of campus life at the University.

Buchtelite and *Tel-Buch* offices are on the third floor of the Student Center.

Nite-Life . . . a monthly publication with news of interest to students in the Evening College. Each year there are 10 issues. This, too, is distributed free to students on campus newsstands.

Nite-Life offices are in the Evening College offices on the ground floor of Buchtel Hall.

What if a Student Wants Housing on or near the Campus?

Demand for campus housing is on the rise as nonresident students enroll at the University with increasing frequency.

Regulation of student housing is by members of the Student Personnel Office. Its primary rule is as follows:

A first year student who lives beyond commuting distance of the campus is required to live in University-approved housing or obtain permission to live with relatives in Akron.

A new dormitory for women, designed to house 120 students, will be added to the housing facilities in the fall of 1962. At the present time there are three women's housing units. These are remodeled family-type homes, built to accommodate up to 15 residents each. Each of them is equipped with kitchens for part-time cooking and each has a Resident Adviser who lives in the house and is available for counseling.

Men enrolling at the University from out-of-town are eligible to apply at the Student Personnel Office for permission to live in the Men's Dormitory #1 which is one of the newest and most modern buildings on campus.

This dormitory has 49 rooms, each designed to provide living quarters for two men. There is ample space in every room for books and clothing; the furnishings and decor are attractively functional and modern. (Another dormitory for men will open its doors in the fall of 1962.)

Cost at the present time is $150 for each semester of the academic year. This applies to housing facilities for both men and women.

Meals are not served in the Men's Dormitory #1. Food is conveniently available in the Student Center.

What if a Student Needs Help?

Facilities to keep a student healthy, happy and well adjusted are part of the services offered to those who enroll at the University. At all times, a student has access to the guidance of trained counselors in the Student Personnel Office. It is here that his test records are kept and where he can get good advice for personal or academic problems which may arise.

Complete physical records of the men and women on campus are kept in the University Health Service offices in Memorial Hall. A physician and a registered nurse are on duty every day.

Occasionally, a student's choice of career or an adjustment to a social situation can be hastened or made easier if he is referred to the Psychological Services Center. This is located in the Civic Education Building on Buchtel Avenue, opposite the campus.

These offices are open to both daytime and Evening College students and the services are free.

Aptitude tests and diagnostic interviews are handled by the Psychological Services staff, in conjunction with

the Student Personnel Office. Arrangements for further professional help, from trained people off-campus, can be taken care of when necessary.

Is There a Placement Service to Help Students Get Jobs?

Student placement aids are available in the Student Personnel Office for those who want either full or part-time jobs in non-teaching positions. Prospective teachers receive their aid from the College of Education. (About 90% of the Education graduates are hired in the Akron area.)

For the graduating student ready to establish himself in his chosen profession, there are many opportunities on campus for being interviewed by representatives of prominent businesses, industries and branches of the military services.

About 100 interviewers come to the University each Spring to talk with graduating students, to distribute informative literature and explain the vocational possibilities of their firms.

For the undergraduate who needs a part-time job, there are more than 300 possibilities of employment on the campus itself.

Student Personnel counselors arrange interviews for student applicants for University positions and in addition, keep a list of current job-openings in about 125 local businesses.

Is There Regulation of Outside Work?

Yes. It is the responsibility of each student who holds a job while attending the University to report to his Dean the number of hours he is employed. Whenever there are significant changes made in the number of hours of employment, the student is expected to keep the information up-to-date in the Dean's office. Disciplinary action may be taken by a Dean if a student neglects to comply with these procedures.

Are There Many All-Campus Meetings of the Student Body?

There are four special convocations at which attendance is requested of the student body. These are annual events, scheduled about the same time each year and planned by a faculty Assembly Committee.

The convocations are: the President's Convocation in the early part of the Fall term; Founders Day Convocation honoring John R. Buchtel, first benefactor, and Dr. Parke R. Kolbe, first president of the municipal University; Spring Convocation, usually near Holy Week, with a religious emphasis; Honors Convocation, near the end of the Spring term, honoring outstanding students.

During the academic year there are occasionally other assemblies, usually held in Memorial Hall when the entire campus population is expected to attend. Assemblies for specialized, smaller groups are frequently held in the University Theatre in Kolbe Hall.

During Summer Sessions, a series of art films is offered to students. These and all other motion picture presentations are in the University Theatre.

In addition, students are expected to attend Town and Gown performances, described later in this section.

Is There Any Required Military Training at The University?

A basic course in either Army or Air Force R.O.T.C. is required of all male students at The University of Akron.

First year students may indicate a preference for the branch of military training they prefer, subject to certain regulations. During the basic courses extending over two years, they receive uniforms and equipment, for which they are responsible. These must be returned at the end of that year or upon leaving the program.

These are the only individuals exempted from this required training for Freshman and Sophomore men:

1) Aliens
2) Men physically disqualified, carrying less than eight hours, or with more than one year prior honorable military service.
3) Men above 23 years of age or enrolled in short professional or pre-professional courses not leading to degrees.
4) Men who have completed 48 credit hours at another accredited college or university.
5) Men who submit written declaration of valid religious or conscientious objections to military service.

Principal objectives of the training programs are to develop character and good moral habits and heighten each man's awareness of his responsibilities as a citizen. It is a goal that the Army and Air Force R.O.T.C. be integral and useful parts of the University and the community.

Advanced courses are available as well as Advanced Summer Camps for men in either of the military units; these are authorized subjects for each man fulfilling requirements for a commission as second lieutenant.

What Are the Cultural Offerings on Campus?

Each year there are abundant opportunities for the students and townspeople alike to enjoy special cultural events on campus.

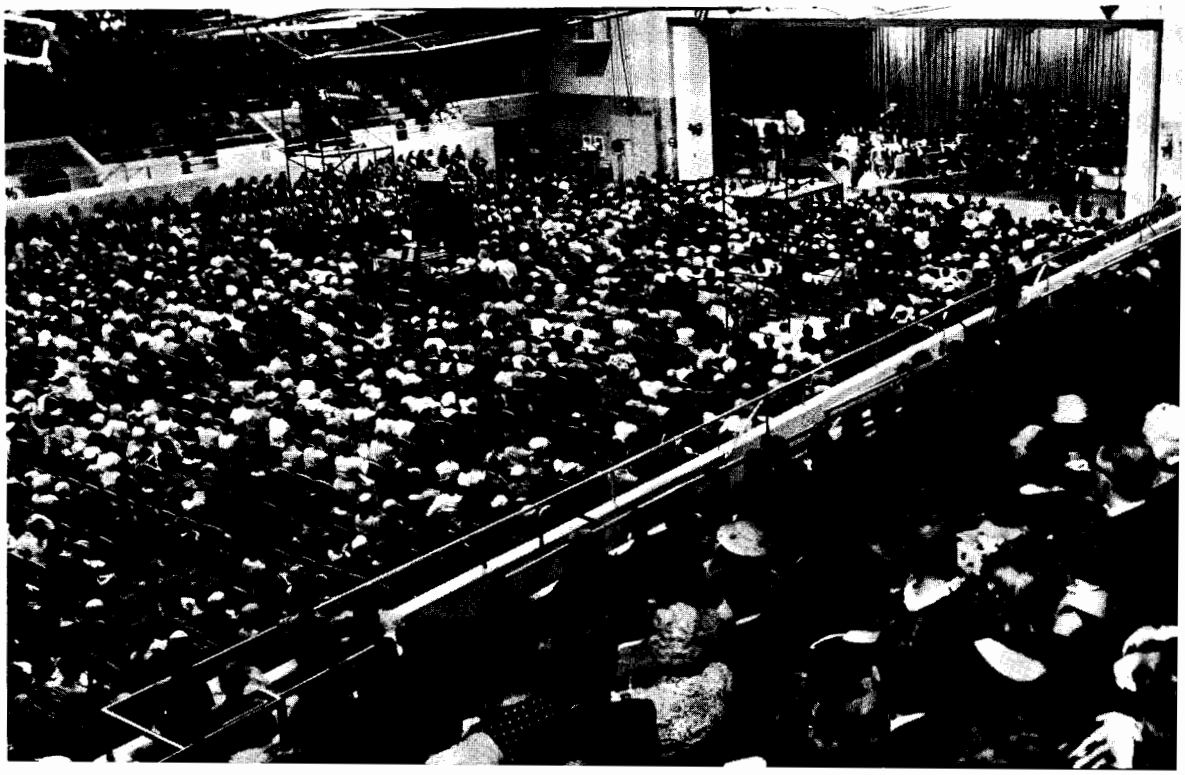
The Institute for Civic Education arranges a yearly "Town and Gown" series, presented on Sunday afternoons during the year in Memorial Hall. These presentations are free to students and are available to townspeople who purchase tickets.

These attractions are currently scheduled:

1) Thomas Mitchell, the actor, will present a theatrical panorama called "The Liveliest Art." (Oct. 22, 1961)
2) Arnold Moss, the author and actor, will give a program of stories and parodies of the Civil War. (Nov. 19, 1961)
3) Vincent Price, the actor, will present "The Living Ideas of Democracy." (Feb. 11, 1962)
4) Hanson Baldwin, the *N. Y. Times* Military Editor, will speak on "Danger from the Far East." (March 11, 1962)
5) Edward Tomlinson, foreign correspondent, will speak on "The New Frontier in Latin America." (April 8, 1962)
6) The U. S. Air Force Band will present two concerts. (April 29, 1962)

Illustrated lectures by world-famous travelers are presented on various Sundays throughout each year. This is called the "World at Our Door" series and is offered free to students. Townspeople are encouraged to participate by purchasing season tickets. The schedule for the 1961-62 season is as follows:

PHIL WALKER
"Indonesia" (Oct. 29, 1961)
JOHN GODDARD
"Congo Conquest" (Nov. 12, 1961)
IRVING JOHNSON
"Yankee Sails Across Europe"
(Dec. 3, 1961)
ERIC PAVEL
"Three Worlds of Peru"
(Feb. 18, 1962)
CLIFFORD KAMEN
"Union of South Africa"
(March 4, 1962)
DON SHAW
"Czechoslovakia" (April 1, 1962)



One of the cultural highlights at The University of Akron is the annual Fine Arts Festival. This is offered without admission charge to the public and is usually scheduled on a May weekend.

The Fine Arts Festival offers a richly varied selection of programs related to music, art and theatre. The 1961 season featured the pianist, Alec Templeton and the 1960 season, the singer, Rise Stevens. Each performed with The Akron Symphony Orchestra.

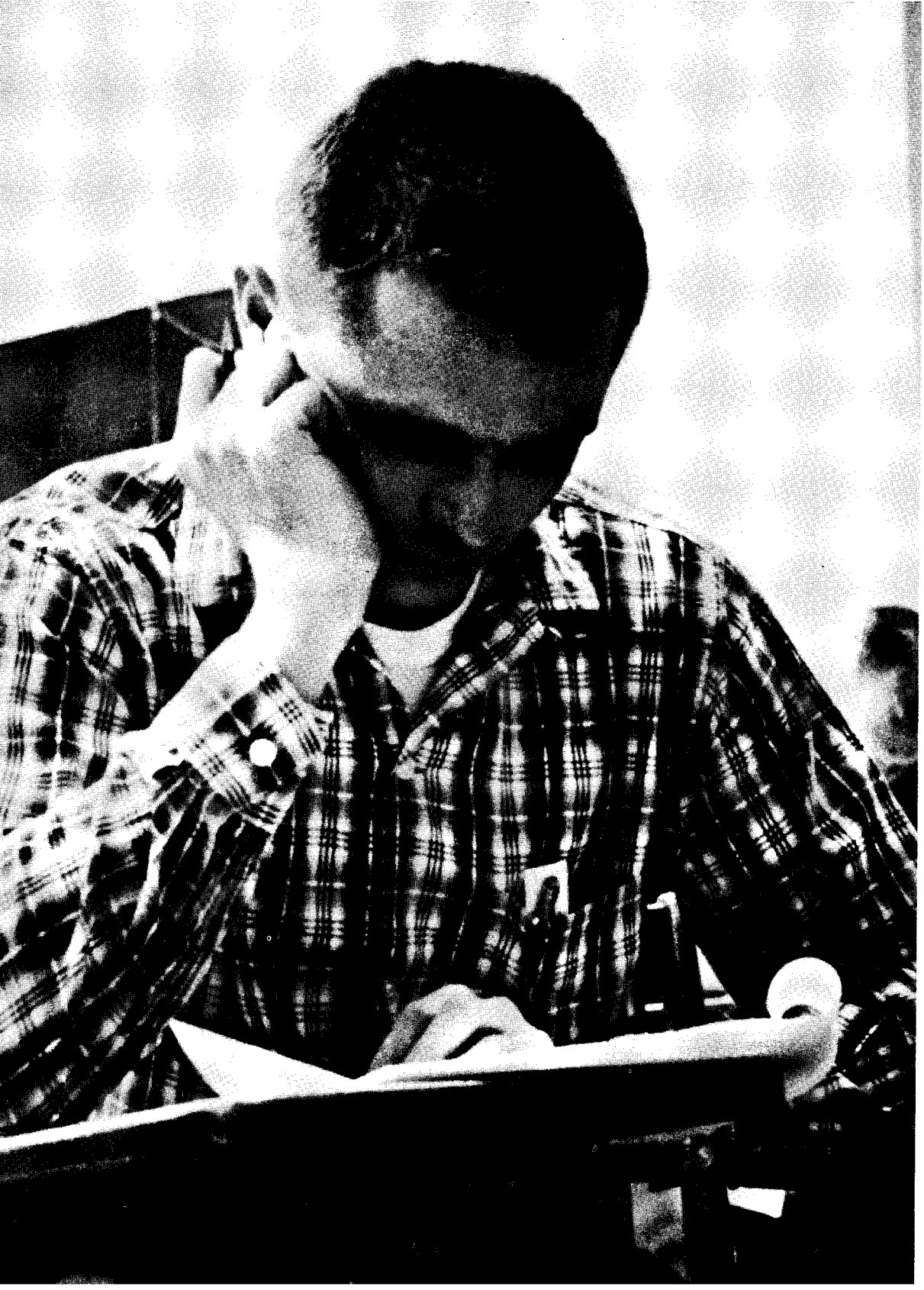
At all times, the extracurricular schedule is kept as flexible as possible, with constant possibility of enlargement. In keeping with the times, discussion groups and field trips are encouraged so that students may develop their abilities to become responsible, effective citizens.

Wherever possible, students are integrated with off-campus individuals who come to the University to increase their own knowledge and reciprocally, to serve as direct sources of information to the students. For instance, before elections, the candidates themselves are frequent visitors to the University.

Many events are traditional and have occurred year after year—but a new group with a satisfactory objective may join together and request permission to organize and function on campus.

Student groups are encouraged to plan their social activities sensibly so that they provide meaningful experiences for their members. Faculty members are often guests at student affairs and through their attendance are able to develop relationships with the students which are both enjoyable and valuable.

A campus-wide calendar is carefully maintained so that social events do not conflict and so that they can be carried out for maximum pleasure and in accordance with University social rules.



7

Where Higher Education Begins:

THE GENERAL COLLEGE

DOMINIC J. GUZZETTA, Ed.D., *Dean*

Students enrolling at The University of Akron with less than two years' previous college experience enter the General College. This policy has been in effect since 1935. In these 26 years, the General College has consistently provided a comprehensive cultural foundation for all entering students.

In President Auburn's words, "No student is graduated from any department, even such vocationally-directed ones as engineering, chemistry or business administration, unless he has mastered our general education courses in the humanities and the social and physical sciences. 'Akron U' pioneered in general education; it does not now propose to eliminate 'know-why' courses in order to offer more 'know-how' techniques."

There are three departments in the General College related to 1) General Studies, 2) Associate Programs and 3) Special Programs. The first two departments are described in succeeding paragraphs. The Department of Special Programs, not being applicable to the regular undergraduate student, is described in later sections. (see Index.)

1) THE DEPARTMENT OF GENERAL STUDIES OF THE GENERAL COLLEGE provides students with courses aimed at developing ability to understand and express ideas effectively, to comprehend the processes involved in accurate thinking and to learn the responsibilities of an educated member of society. Also, by taking courses in the General Studies department, students gain knowledge which helps them to develop intelligent behavior patterns and gain understanding of themselves and their own individual abilities.

   The General Studies program is an outgrowth of the belief that a student's personal education is like a pyramid—that is, in order for him to develop his

intellectual abilities to their cultural or professional height, he must first establish a wide foundation of general knowledge to serve as the structural basis.

Serving as the foundation of each University student's educational pyramid is the General College curriculum including Written English, Effective Speaking, Numbers Communication, Reasoning and Understanding in Science, Institutions in the United States, Western Cultural Traditions, Eastern Civilizations, Physical Education and the Senior Seminar. This well-balanced program of studies has been thoughtfully evolved by experts in academic research, representing many leading American educational institutions including The University of Akron. The General College program as it is now presented is the fruit of almost a half century of planning, revising and developing.

Students, well-grounded in the General Studies, are academically prepared to continue into realms of higher education; this curriculum has proved the most advantageous starting point for a student, no matter his eventual scholastic goal. It is valuable in equal measure to the enrollee who is indecisive about his professional future and to the enrollee who arrives at the University firmly convinced that he knows what he wants to become.

Students who complete the courses outlined in the General College curriculum, earning a total of approximately 64 credit hours (slightly more for Engineering) and achieving a quality point ratio of 2.0 (C) or better, are eligible for promotion to the Upper College of their choice.

Acceptance of a student in an Upper College is the responsibility of the respective academic Dean, in consultation with the Dean of the General College and heads of departments concerned.

These are the required courses in the

DEPARTMENT OF GENERAL STUDIES

1:1-2 Written English .....6 credits, first year
1:5 Written English .....3 credits, before 64 hours
1:8 Effective Speaking .....3 credits, before 64 hours
1:11 Numbers Communication .....2 credits, before 64 hours
1:13-14 Reasoning and Understanding in Science .....6 credits, second year
1:15-16 Institutions in the United States .....6 credits, first year
1:17-18 Western Cultural Traditions .....6 credits, before 96 hours
1:21-22 Physical Education .....1 credit, first year
1:101 Senior Seminar .....2 credits, final year, either semester
1:103 Eastern Civilizations .....3 credits, final year, either semester

The following additional General Studies courses will continue to be offered until it has been determined that student programs of study no longer require them.

1:3-4 Written English .....4 credits, second year
1:6-7 Effective Speaking .....4 credits, first and second year
1:19 Personal Development .....2 credits, first year

A description of all of the above courses will be found on the pages immediately following:

Comprehensive Description of Subjects of Instruction in THE GENERAL STUDIES DEPARTMENT of the General College

1:1-2. WRITTEN ENGLISH. 3 *credits each semester.*

1:1 is prerequisite to 1:2. 1:6 must be taken concurrently with 1:2.

1:3-4. WRITTEN ENGLISH. 2 *credits each semester.*

1:2 is prerequisite to 1:3. 1:3 is prerequisite to 1:4. 1:7 must be taken concurrently with 1:3.

1:5. WRITTEN ENGLISH. 3 *credits.*

1:1 and 1:2 are prerequisites.

These courses are intended to enable to student to obtain proficiency in the reading and writing of English. The reading materials used will be, primarily, outstanding literary works of our Western tradition.

Through these courses the student will gain competence in reading and writing. He will improve his writing skill through short expository papers (writing at least one a week), including a documented paper in 1:1; and, in the following courses, progress to writing longer and more complex critical and analytical pieces, including, in 1:2, a longer documented paper. He will improve his reading skill through reading, analyzing and discussing selected materials arranged in order of increasing difficulty and through critical analysis and appraisal of his own and other students' compositions.

1:6-7. EFFECTIVE SPEAKING. 2 *credits each semester.*

1:6 is prerequisite to 1:7. 1:6 must be taken concurrently with 1:2. 1:7 must be taken concurrently with 1:3.

1:8. EFFECTIVE SPEAKING. 3 *credits.*

1:1 is prerequisite.

Through these courses the student will acquire speaking-listening proficiency; he will develop an awareness of and skill in the accurate use of language and learn to relate fundamentals of effective speaking to certain aspects of reading, writing, and listening. The course 1:8 will place special emphasis on the argumentative and persuasive aspects of speech. At least two thirds of the course will be devoted to speech performance.

1:11. NUMBERS COMMUNICATION. 2 *credits.*

Through this course in the language of quantitative relationships the student will develop his ability to receive and to express ideas in mathematical symbols, increase his appreciation of the methods of mathematical reasoning, and come to understand and think creatively about the quantitative aspects of the world in which he lives. One lecture and two participation-discussion periods each week.

1:13-14. REASONING AND UNDERSTANDING IN SCIENCE. 3 *credits each semester.*

1:13 is prerequisite to 1:14. Primary objectives of this course are to enable the student to grasp the processes of accurate thinking and to understand the principles used in science as illustrated in the study of natural phenomena. The study of the use of the method will be emphasized, rather than of the end products obtained by its use. This procedure will involve the use of case histories chosen from the various fields of science. Three lectures and a voluntary discussion period a week.

1:15-16. INSTITUTIONS IN THE UNITED STATES. 3 *credits each semester.*

1:15 is prerequisite to 1:16. Primary objective of this course is to enable the student to achieve an understanding of human relationships through a comparative descriptive, and analytical study of institutions of the United States. An exposition of basic institutional principles will be followed by a discussion of these principles in the light of both the student's reading and the student's direct contact with institutional reality. Two lectures and two discussion periods each week.

1:17-18. WESTERN CULTURAL TRADITIONS. 3 *credits each semester.*

Prerequisites, 1:2 or permission. 1:17 is prerequisite to 1:18. Primary objectives of this course are to enable the student to understand human experience, both individual and group, of the past, so that he may develop an intelligent and constructive standard of personal behavior and may become a responsible member of society. To achieve these objectives, it is necessary for the student to grasp the essential features of the traditions of Western civilization as manifested in its outstanding accomplishments and creative endeavors in letters, music, and the visual arts. It is not intended that this course give a complete portrayal or minute development of any one of these fields, but rather that certain particularly important eras which have special significance for our time should be chosen. Two lectures and two participation-discussion periods each week.

1:19. PERSONAL DEVELOPMENT. 2 *credits.*

Primary objectives of this course are to enable the student to acquire the knowledge involved in maintaining and improving physical and emotional well-being and personal relationships, including those concerned with the family, the home and his vocational future. To achieve these objectives, it is necessary that the student have an understanding of physiology and health laws, insight into human behavior and acquaintance with mental processes and fundamentals of personality development. One lecture and one discussion period each week.

1:21-22. PHYSICAL EDUCATION. ½ *credit each semester.*

Participation in individual and group sports, with each individual to acquire knowledge and skill in activities which can be of value and satisfaction to him throughout his life. Two periods each week.

1:101. SENIOR SEMINAR. 2 *credits.*

Prerequisite, Senior standing. An analytical examination of significant, current problems and issues, including their origin and development, and the consideration of possible solutions for them. Each student must satisfactorily complete this course before graduation and should take it in either one of his last two semesters preceding graduation.

1:103. EASTERN CIVILIZATIONS. 3 *credits.*

Prerequisite, Senior standing. The primary objective of this course is to give the student a knowledge of past human experience and an understanding of present attitudes in the four major cultural groups of the Eastern World: China, Japan, India, and the Moslem World. The student will become familiar with the essential features of these civilizations as manifested in their outstanding accomplishments in religion, philosophy, art, science and political organization.

2) THE DEPARTMENT OF ASSOCIATE PROGRAMS OF THE GENERAL COLLEGE was developed for the students who plan to study for two years and then enter their chosen vocations. When these students terminate their college training after

having followed the designated courses in the General College Associate Program, they are eligible to receive Associate degrees.

Two-year courses are available in five fields at the University: Arts, Industrial Electronics, Mechanical Design, Secretarial Science and Transportation.

A student working for an Associate degree in any of these five fields is required to take specified General Studies courses plus specially designated courses in the particular academic area he has chosen. These General Studies courses include Written English, Effective Speaking, Institutions of the United States and Physical Education.

These are the required courses in the
DEPARTMENT OF ASSOCIATE PROGRAMS

ARTS

First Year

	First Semester	Credits		Second Semester	Credits
1:1	Written English	3	1:2	Written English	3
1:11	Numbers Communication	2	1:14	Reasoning and Understanding in Science	3
1:13	Reasoning and Understanding in Science	3	1:16	Institutions in the U.S.	3
1:15	Institutions in the U.S.	3	1:22	Physical Education	½
1:21	Physical Education	½		ROTC	1½
	ROTC	1½		Electives	4
	Electives	3			

Second Year

	First Semester	Credits		Second Semester	Credits
1:8	Effective Speaking	3	1:5	Written English	3
1:17	Western Cultural Traditions	3	1:18	Western Cultural Traditions	3
	ROTC	1½		ROTC	1½
	Electives	9		Electives	9

NOTE: Students not required to take ROTC will substitute 6 hours of electives. A maximum of 9 hours of electives may be chosen in any one department. While most of the electives should be selected from courses offered by departments in the Buchtel College of Liberal Arts, with approval, certain courses may be chosen from other College curricula.

INDUSTRIAL ELECTRONICS

First Year

	First Semester	Credits		Second Semester	Credits
1:1	Written English	3	1:2	Written English	3
1:21	Physical Education	½	1:8	Effective Speaking	3
20:25	Physics	4	1:22	Physical Education	½
33:21	Engineering Graphics I	3	20:26	Physics	4
60:31	Mathematical Analysis	3	60:32	Mathematical Analysis	3
	ROTC	1½	60:41	Circuit Theory	3
				ROTC	1½

Second Year

	First Semester	Credits		Second Semester	Credits
1:17	Western Cultural Traditions	3	1:15	Institutions in the U.S.	3
60:33	Mathematical Analysis	3	1:18	Western Cultural Traditions	3
60:42	Circuit Theory	3	60:44	Electronics	4
60:43	Electronics	4	60:46	Measurements	3
60:45	Machinery	3	60:47	Electronics	3
	ROTC	1½		ROTC	1½

MECHANICAL DESIGN

First Year

	First Semester	Credits		Second Semester	Credits
1:1	Written English	3	1:2	Written English	3
1:21	Physical Education	½	1:8	Effective Speaking	3
20:25	Physics	4	1:22	Physical Education	½
33:21	Engineering Graphics I	3	20:26	Physics	4
60:31	Mathematical Analysis	3	60:32	Mathematical Analysis	3
	ROTC	1½	60:51	Statics & Dynamics	3
				ROTC	1½

Second Year

	First Semester	Credits		Second Semester	Credits
1:17	Western Cultural Traditions	3	1:15	Institutions in the U.S.	3
60:33	Mathematical Analysis	3	1:18	Western Cultural Traditions	3
60:52	Strength of Materials	3	33:22	Engineering Graphics II	3
60:53	Design Materials	3	60:55	Mechanical Design	4
60:54	Mechanical Design	4	60:56	Applied Thermal Energy	3
	ROTC	1½		ROTC	1½

SECRETARIAL SCIENCE

First Year

	First Semester	Credits		Second Semester	Credits
1:1	Written English	3	1:2	Written English	3
1:21	Physical Education	½	1:8	Effective Speaking	3
43:21	Introduction to Office Problems	3	1:11	Numbers Communication	2
43:25	Machine & Slide Rule	1	1:22	Physical Education	½
43:53*	Typing Principles	3	43:54*	Typing Projects	3
43:61*	Shorthand Principles	4	43:62*	Shorthand & Transcription	3
	ROTC or Elective	1½		ROTC or Elective	1½

Second Year

	First Semester	Credits		Second Semester	Credits
1:5	Written English	3	1:16	Institutions in the U.S.	3
1:15	Institutions in the U.S.	3	30:41	General Psychology	3
39:21	Accounting	3	43:93	Business Communications	2
43:63*	Advanced Dictation & Transcription	4	43:55	Advanced Typewriting & Secretarial Machines	3
	ROTC or Elective	1½	43:64	Advanced Dictation & Transcription	4
	Elective	1		ROTC or Elective	1½

NOTE: Total to equal a minimum of 64 credit hours.
* Students with previous training may be excused by examination.

TRANSPORTATION

First Year

	First Semester	Credits		Second Semester	Credits
1:1	Written English	3	1:2	Written English	3
1:15	Institutions in the U.S.	3	1:16	Institutions in the U.S.	3
1:21	Physical Education	½	1:22	Physical Education	½
6:45	Economics	3	60:32	Mathematical Analysis	3
40:61	Business Organization & Management	3	60:60	Survey of Transportation	3
60:31	Mathematical Analysis	3	60:61	Elements of Transportation I	3
	ROTC	1½		ROTC	1½

Second Year

	First Semester	Credits		Second Semester	Credits
1:8	Effective Speaking	3	1:18	Western Cultural Traditions	3
1:17	Western Cultural Traditions	3	39:121	Survey of Accounting	3
43:93	Business Communications	2	60:63	Terminal Operation	3
60:62	Elements of Transportation II	3	60:65	Interstate Traffic, Practices & Procedures II	3
60:64	Interstate Traffic, Practices & Procedures I	3		ROTC	1½
	ROTC	1½		Elective	3

Comprehensive Description of Subjects of Instruction in THE ASSOCIATE PROGRAMS of the General College

GENERAL COURSES

Principally for those Enrolling in Industrial Electronics, Mechanical Design and Transportation:

60:31. MATHEMATICAL ANALYSIS. 3 *credits.*

Prerequisite, 1 unit of algebra; 1 unit of plane geometry. The number system of algebra; elements and operations of algebra; equalities and inequalities; logarithms, trigonometry of the right triangle and applications; functions and variation.

60:32. MATHEMATICAL ANALYSIS. 3 *credits.*

Prerequisite, Mathematical Analysis 60:31. Plane trigonometry; numerical and analytical; trigonometric functions of the general angle, reduction formulas, identities and equations, graphical analysis, solution of oblique triangles, special formulas. Various topics from the algebra of Mathematical Analysis 31 will be extended; binomial theorem.

60:33. MATHEMATICAL ANALYSIS. 3 *credits.*

Prerequisite, Mathematical Analysis 60:32. Analytical geometry of the straight line, circle and conics; functions and limits, differentiation and integration of simple functions with applications; the definite integral with geometric applications; introduction to Boolean Algebra; inequalities; theory of equations.

ARTS

The Associate degree in this field includes specified General Studies courses as well as appropriate subjects in the College of Liberal Arts on the first two-year level. Descriptions of these courses are found in Section VIII.

INDUSTRIAL ELECTRONICS

60:41. CIRCUIT THEORY. 3 *credits.* (3-0-3).

Corequisite, Mathematical Analysis 60:32 and Physics 20:52. General laws of A.C. and D.C. circuits, effective values, phasors, resistance, inductance, capacitance, complex numbers, analysis of series and parallel circuits.

60:42. CIRCUIT THEORY. 3 *credits.* (3-0-3).

Prerequisite, Circuit Theory 60:41. Solution of networks, network theorems, three phase systems, magnetic and electric field concepts.

60:43. ELECTRONICS. 4 *credits.* (3-1-4).

Prerequisite, Circuit Theory 60:41. Theory and characteristics of vacuum, gas and photo tubes, semiconductors, rectifier circuits, amplifier circuits.

60:44. ELECTRONICS. 4 *credits.* (3-1-4).
Prerequisite, Electronics 60:43. Amplifier circuits continued, oscillators, modulation.

60:45. MACHINERY. 3 *credits.* (2-1-3).
Corequisite, Circuit Theory 60:42. Operating principles of A.C. and D.C. machinery including fractional sizes.

60:46. MEASUREMENTS. 3 *credits.* (2-1-3).
Prerequisite, Circuit Theory 60:42. Principles of some of the important measuring circuits and instruments.

60:47. ELECTRONICS. 3 *credits.* (3-0-3).
Prerequisite, Electronics 60:44 and Machinery 60:45. Investigation of electron circuits used in industry such as motor control, timers, photo controllers, chopper amplifiers, etc.

MECHANICAL DESIGN

60:51. STATICS AND DYNAMICS. 3 *credits.* (3-0-3).
Prerequisite, Physics 20:51. Prerequisite or corequisite, Mathematical Analysis 60:32. Forces, resultants and couples. Equilibrium of force systems. Trusses. Friction. Moments of inertia. Motion of particles and rigid bodies.

60:52. STRENGTH OF MATERIALS. 3 *credits.* (3-0-3).
Prerequisite, Statics and Dynamics 60:51. Corequisite, Mathematical Analysis 60:33. Stress-strain relationships. Stresses. Beams. Columns.

60:53. DESIGN MATERIALS. 3 *credits.* (3-0-3).
Prerequisite, Mathematical Analysis 60:31. The fundamental properties of materials and their uses in Engineering. Instrumentation and testing of materials. Application of methods used to vary properties of materials to meet specific design conditions.

60:54. MECHANICAL DESIGN. 4 *credits.* (1½-2½-4).*
Corequisites, Mathematical Analysis 60:33, Design Materials 60:53 and Strength of Materials 60:52. Design of machine elements. Motion in machines. Velocities. Special mechanisms. Determination of design dimensions. Bolts and screw design. Springs, shafting and cranks. Couplings, brakes and clutches. Bearings.

60:55. MECHANICAL DESIGN. 4 *credits.* (1½-2½-4).*
Prerequisite, Mechanical Design 60:54. Complete overall design of a simple machine including detail and assembly drawings for each part or sub-assembly.

60:56. APPLIED THERMAL ENERGY. 3 *credits.* (2½-½-3).*
Prerequisites, Mathematical Analysis 60:33 and Physics 20:52. Thermodynamic principles. Study of cycles involving gases, vapors and mixtures. Applications in I.C. engines, compressors, steam plants and refrigeration.

SECRETARIAL SCIENCE

43:21. INTRODUCTION TO OFFICE PROBLEMS. *Either semester.* 3 *credits.*
Fundamental principles and procedures which relate to the secretarial position, including basic filing systems.

* Three one-hour lectures odd number weeks.
Two one-hour lectures and one three-hour lab even weeks.
Total: 51 lectures and 8 three-hour lab periods.

43:25. MACHINE AND SLIDE RULE CALCULATION. *Either semester.* 1 *credit.*

Techniques of machine and slide rule calculation as applied to business. Credit is not allowed both for this course and for Filing and Machine Calculation 26.

43:35. BUSINESS ENGLISH. *Either semester.* 2 *credits.*

Fundamentals of English, its use in business world.

43:46. SHORTHAND REVIEW. *Second semester,* 3 *credits.*

Thorough review of Gregg shorthand theory and beginning transcription, covering one year's work. Credit not allowed for this course and also 61-62.

43:53. TYPEWRITING PRINCIPLES. (Beginning) *First semester.* 3 *credits.*

Fundamentals of typewriting followed by drill to acquire skillful coordination of machine parts. This is followed by application of the skill to simple typing problems.

43:54. TYPEWRITING PROJECTS. *Second semester.* 3 *credits.*

Prerequisite, 53 or equivalent. Application of typewriting skill on a problem basis to letter writing, data writing, report writing, and legal writing.

43:55. ADVANCED TYPEWRITING AND SECRETARIAL MACHINES. *Either semester.* 3 *credits.*

Prerequisite, 62 and 54 or equivalent. Advanced typewriting, transcription, business forms, duplication processes, dictating and transcribing machines.

43:60. SHORTHAND REVIEW. *First semester.* 2 *credits.*

Prerequisite, 53 or equivalent, unless taken concurrently. Gregg Shorthand Theory is reviewed. No credit unless second semester is completed satisfactorily. Credit not allowed for this course and also 61.

43:61. SHORTHAND PRINCIPLES. *First semester.* 4 *credits.*

Prerequisite, Typewriting 53 unless taken concurrently. Gregg Shorthand Theory is covered. No credit unless second semester is completed satisfactorily.

43:62. SHORTHAND AND TRANSCRIPTION. *Second semester.* 3 *credits.*

Prerequisite, Shorthand 61 or equivalent. Typewriting 54 or equivalent must precede or accompany. Introduction of machine transcription and general dictation. Speed attainment: 80 to 90 words per minute.

43:63. ADVANCED DICTATION AND TRANSCRIPTION. *First semester.* 4 *credits.*

Prerequisite, Shorthand and Transcription 62 and Typewriting Projects 54 or equivalent. Vocabulary building, general dictation on letters and articles. Speed attainment: 90 to 110 words per minute.

43:64. ADVANCED DICTATION AND TRANSCRIPTION. *Second semester.* 4 *credits.*

Prerequisite, Shorthand and Transcription 63. Advanced Typewriting and Secretarial Machines 55 must precede or accompany. Specialized vocabularies, dictation on letters and articles. Speed attainment: 110 to 130 words per minute.

43:93. BUSINESS COMMUNICATIONS. *First semester.* 2 *credits.*

Principles involved in various types of written business communication, and application of these principles.

TRANSPORTATION

60:60. SURVEY OF TRANSPORTATION. 3 *credits.*

Prerequisite, 3 hours of economics. The economic characteristics of the transportation industries; the regulation of the industries by governmental bodies; the bases and

problems in establishing rates; and current problems and recommendations in transportation policies.

60:61. ELEMENTS OF TRANSPORTATION, I. 3 *credits.*

A study of the principles and practices related to rates, charges, and claims in the rendering of services. Special emphasis is on the problems, principles and practices of classification rules, freight rates and tariffs, rate making, shipping documents, freight claims, loss and damage claims and overcharge claims.

60:62. ELEMENTS OF TRANSPORTATION, II. 3 *credits.*

Prerequisites, 60:60 and 60:61. The theory and practice of the transportation industry in regard to freight tariffs, rates, special services and claims for loss and damage, and overcharge and undercharges. Emphasis is on industry practices in these matters.

60:63. TERMINAL OPERATION. 3 *credits.*

A study of the management problems, practices, and decision making in regard to facilities, personnel programs and controls. Emphasis is on the problems and practices of managing physical facilities at the terminal, docks, local routes, and equipment, and over-the-road routes and equipment. The personnel problems of driver selection and training and safety practices are also emphasized.

60:64. INTERSTATE TRAFFIC, PRACTICES AND PROCEDURE, I. 3 *credits.*

The legal and constitutional aspects of Federal regulation of the transportation industry. Emphasis is on the original act to regulate interstate commerce, including its purpose and interpretation of its various provisions, the amendatory, related acts enacted during the several legislative periods.

60:65. INTERSTATE TRAFFIC, PRACTICES AND PROCEDURE, II. 3 *credits.*

Prerequisite, 60:64. A study of the nature, function, and organization of the Interstate Commerce Commission and remedial action available to shippers and carriers under the Interstate Commerce Act. Emphasis is given the procedural handling of rate and traffic controversies before the Commission and the Courts as provided for in the legislation and general rules of practice and procedure of the Commission.

8

Areas of Study for Undergraduates in Upper Colleges:

The Buchtel College of Liberal Arts
The College of Engineering
The College of Education
The College of Business Administration

When the regular undergraduate student enrolls at the University, he immediately becomes part of the large general grouping called the student body. His concern with its divisions and subdivisions comes later . . . usually at the end of his second year when many of the General College requirements are fulfilled and he is eligible to apply for admission to an Upper College.

With the permission of the Dean of the General College and the Dean of his selected Upper College, a student may be admitted to one of these four areas of instruction:

1) The Buchtel College of Liberal Arts
2) The College of Engineering
3) The College of Education
4) The College of Business Administration

Entering a specific Upper College, a student is no less a part of the student body, but by this time, he has turned his efforts in a definite direction and sometimes towards a specific professional goal.

This means that he not only moves into an Upper College, but also that he becomes associated with a division which satisfies his individual interests. Eventually his choice of one or two major fields will lead to his becoming principally associated with these specific one or two departments.

Every student's academic work is in accordance with over-all University regulations, but his degree is conferred by the Dean of his Upper College, indicating that specific requirements in his major academic departments have been met successfully.

Here are definitions and examples which explain the academic organization at The University of Akron.

THE UNIVERSITY—the entire institution; an academic whole. *For example: The University of Akron*

A COLLEGE—a wide area of specialized higher learning within the framework of the University itself. *For example: The Buchtel College of Liberal Arts*

A DIVISION OF INSTRUCTION—a generic grouping within a college. *For example: The Buchtel College of Liberal Arts has three divisions: Humanities, Social Sciences and Natural Sciences.*

A DEPARTMENT OF INSTRUCTION—a closely defined area of specialization within a division. *For example: The Humanities Division within the Buchtel College of Liberal Arts has seven departments: Art, English, Latin and Greek, Modern Languages, Music, Philosophy, Speech.*

An occasional subdivision set up to delineate further specialization within a department is *an Academic Area.* For example: The Speech Department in the Humanities Division of the Buchtel College of Liberal Arts has four areas: public address, theatre, speech correction, radio-television.

SUBJECTS OF INSTRUCTION—the most minutely specialized part within each department; the actual point of academic contact between faculty and student. *For example: The Speech Department has about 40 subjects of instruction.*

THE STUDENT—the individual receiver of all academically imparted information; the focal point of University instruction. Even this table of organization is described for the benefit of the student, that he may understand the channels of academic activity. The University's subdivisions of colleges, divisions and departments are basically designed so that students of similar interests and ambitions may study together and spend their college years most advantageously.

The four Upper Colleges of The University of Akron have grown dramatically in number of students enrolled in each and have expanded in quality and quantity of courses offered, in response to ever-increasing demand. By the improvement of its colleges, a university develops its scholastic force and reputation.

The Presidents of the University have been instrumental in charting the course of the University as a whole. This, of course, directly involves planning for each of the colleges which are the University's components. However, each individual college derives its prestige and intrinsic effectiveness in great measure from the actions of its own administrative Deans, past and present.

The University of Akron, being a municipal institution, gains added assistance in determining and carrying out valuable advancements from members of the surrounding community who serve on College Advisory Committees.

Each college owes a debt of gratitude to these on-campus and off-campus contributors to its welfare. A complete historical listing of Deans of each college will be found in Section XV. Names of persons serving on currently active College Advisory Committees also are listed there.

Succeeding pages in this section are devoted to the descriptions of each of the Upper Colleges, with outlines of requirements for entering and being graduated from each one, explanations of their divisions and departments, followed by a compilation of subjects taught in each department.

AN UPPER COLLEGE:

The Buchtel College of Liberal Arts

THOMAS SUMNER, Ph.D., *Dean*

The Buchtel College of Liberal Arts is one of four Upper Colleges at The University of Akron. Its name truthfully implies that its traditions date back further than the other three undergraduate colleges, since the University itself is an outgrowth of Buchtel College, a liberal arts institution founded in 1870.

When Buchtel College became a Municipal University, the original name was retained in its College of Liberal Arts. Then and now, the liberal arts goal has been to offer broad training to the college student so that he can prosper in life and sustain a creative appreciation of the arts.

It is an objective of the Buchtel College of Liberal Arts to introduce students to the chief fields of knowledge and impart habits of clear thinking. In liberal arts classes, men and women acquire poise and develop their resources for a lifetime of enriched leisure hours.

Liberal Arts graduates have shown that they maintain an awareness of their social responsibilities and live busy lives of active and intelligent citizenship and have excellent basis for specializing in any of a wide variety of professions. Many women with a liberal arts background are active in professional fields themselves and/or become congenial wives of educated, intelligent men.

Although specific vocational preparation is not the primary objective of Buchtel College, its offerings prepare students to enter directly into many careers. Also, they have a foundation of knowledge which enables them to enroll for advanced study in many areas.

The breadth of liberal arts education at the University is most readily explained by describing its three administrative divisions. They are as follows:

1. THE HUMANITIES DIVISION—stresses cultural development and teaches an awareness of art, classics, languages, music, philosophy and the spoken and written word. Creative ability is encouraged and a feeling of aesthetic responsibility is motivated.

   Among the countless careers which graduates of this division enter, typical examples are: designing, writing, painting, radio and television acting and directing, teaching and lecturing. Also, Humanities Division graduates have excellent preparation for the specialized fields of speech, language, music and

library science, as well as being culturally equipped to be at home in intellectual circles.

II. THE SOCIAL SCIENCES DIVISION—stresses the accruing of knowledge in such fields as history, economics, political science, psychology and sociology. A main objective is to develop students to be leaders in their communities and active participants in leisure hour civic projects, regardless of their chosen professions.

Graduates in the Social Sciences Division often become teachers, businessmen, public administrators, social workers and politicians. Also, they are prepared for graduate study in business, law, psychology, social work and public administration. Many Social Science graduates pursue graduate study in specific fields, relating their avocational pursuits with their former academic major subjects.

III. THE NATURAL SCIENCES DIVISION—is the most professionally-directed 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 on such subjects as biology, chemistry, mathematics, physics or home economics.

A graduate of this division receives fundamental education which can serve as an excellent point of departure for entering the highly important technical areas of specialization such as medicine or dentistry. Also, biology majors may go on to become parasitologists, entomologists, embryologists or botanists; chemistry majors usually continue into fields of organic, inorganic, physical or polymer chemistry; physics majors proceed to become specialists in fields such as atomic, nuclear or theoretical physics.

Even with no further study after receiving their Bachelor's degree, graduates in this division are equipped to become, for example, computer programmers, professional scientists or mathematicians. Home economics majors are equipped to fulfill careers as dieticians or as wives and mothers in their own homes.

REQUIREMENTS FOR ADMISSION

To be admitted to the Buchtel College of Liberal Arts the student must have completed satisfactorily at least 64 credits of work with at least a 2.0 ratio; have completed the required General Studies courses; have completed the departmental or divisional prerequisites and have the approval of the Dean of the college.

Requirements for admission to graduate study will be found in the Graduate Division section of the catalog.

REQUIREMENTS FOR DEGREES

1. Electives included in the 128 credits of total work required for the degree may consist of any courses offered for credit in the University, provided that the prerequisites as set forth in the catalog are met and further provided that not more than two credits of physical education activities, eight of applied music, four of music organizations and four of typing are included. (Credit limitations on applied music and music organizations do not apply to the Bachelor of Music degree.)
2. The recommendations of the student's major professor.

3. Except in the labor relations and medical technology curriculums, completion of Second Year foreign language on the university level (i.e., Russian, French, German, Spanish or Latin 43-44.)
4. Other requirements are set forth in the section on "University Degree Requirements" and on the following pages.

DEGREES

The following degrees are granted in the divisions:

The Humanities: Bachelor of Arts, Bachelor of Music.

The Social Sciences: Bachelor of Arts; Bachelor of Science in Labor Relations.

The Natural Sciences: Bachelor of Science; Bachelor of Science in Medical Technology. (However, at the discretion of the Dean, students majoring in mathematics may be granted the Bachelor of Arts degree if much of their work is in the humanities or social sciences.)

For information concerning advanced degrees see "Graduate Study."

THE 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. The major will consist of from 24 to 64 credits in addition to the required General Studies and foreign language courses. Part or all of these credits may be taken in specifically required courses depending upon the major chosen. The longer and more professional majors should be started during the first or second year when the student is still under the guidance of the Student Personnel Office. The shorter Liberal Arts majors need not be declared before the end of the second year when the student is ready for promotion to Buchtel College.

Ordinarily a student will select a department in which to major. The exact requirements for each such major will be found on the following pages in the section headed "Departments of Instructon." 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 promoted to the college, the head of his major department becomes his academic adviser.

Students who desire a broader education than the departmental major offers may elect a divisional major and qualify in the general area of the humanities, the social sciences or the natural sciences. Such students meet only the requirements of the chosen divisional major as described on the following pages in the section headed "Divisions of Instruction." As soon as the student contemplating a divisional major is promoted to the college, the chairman of his major division becomes his academic adviser.

PREPARATION FOR HIGH SCHOOL TEACHING

Students interested in a teaching career on the high school level may qualify for certification by the State Department of Education while enrolled in the Buchtel College of Liberal Arts. Generally their Liberal Arts major subject will also constitute a teaching major. The education and psychology courses required for the secondary school teaching certificate may be taken as electives toward the Liberal Arts degree. Additional elective credits will generally enable the student to qualify in a second teaching field, which facilitates teacher placement, without exceeding the 128 credits necessary for graduation from the Buchtel College of Liberal Arts. Such a program is particularly recommended for students who plan to go to graduate school and earn an advanced degree through specialization in their field of major interest.

The number of credits in a teaching field required for certification may be determined by reference to the table entitled "Statement of Number of Hours Required For Certification in Various Teaching Fields" located in the College of Education section of this catalog. The major field must include 6 credits more than the number shown in the table except where that number is 30 or more. A second teaching field must include the number of credits shown in the table.

The professional courses in education and psychology required for certification are listed in the table below, which shows how they may be scheduled over a two-year period. They may be spread over three years or taken in two semesters and two Summer Sessions.

Third Year

	First Semester	Credits		Second Semester	Credits
30:41	General Psychology	3	27:57	Human Dev. and Learning	3
			27:56	Educ. in American Society	2

Fourth Year

27:113	Principles and Practices in Secondary Education	3	27:202	Student Teaching and Seminar	8*
			27:201	Problems in Education	3

The Buchtel College of Liberal Arts students preparing for high school teaching must signify their intention in conference with the Dean of the College of Education near the end of the sophomore year.

DIVISIONS OF INSTRUCTION

HUMANITIES

The Humanities Division consists of the Departments of Art, English, Latin and Greek, Modern Languages, Music, Philosophy and Speech. The divisional major must include the following, in addition to the General Studies and the second year of a foreign language:

a. At least 48 credits in the division, at least 24 credits of which must be in courses on the Upper College level. The minimum of 48 credits must include at least six credits in each of any five of the following: English, Philosophy, Speech, Music, Art, French, German, Spanish, Latin, and Greek.
b. At least six credits in the Department of History.

SOCIAL SCIENCES

The Social Sciences Division consists of the Departments of Economics, History, Political Science, Psychology and Sociology. The divisional major must include the following, in addition to the General Studies and the second year of a foreign language:

a. At least 54 credits in the division.
b. At least 18 credits and not more than 21 credits in each of two of the five departments. No credits in excess of 21 in any department will be accepted unless the student meets the major requirements of such department for graduation.
c. At least nine credits in each of two other departments, or 18 credits in one other department.
d. At least 24 credits of divisional courses on the Upper College level.
e. At least 24 credits outside the division.
f. Passage of a general final examination in the second semester of the senior year.

* If taken during the Summer Session, 27:202 becomes a six credit course.

NATURAL SCIENCES

The Natural Sciences Division consists of the Departments of Biology, Chemistry, Home Economics, Mathematics, and Physics. The divisional major must include the following, in addition to the General Studies and the second year of a foreign language:

a. At least 54 credits in the division.
b. At least 12 credits each in Biology, Chemistry, Mathematics, and Physics.
c. At least six credits on the Upper College level in the division.

DEPARTMENTS OF INSTRUCTION

ART

Requirements for a major in Art are:

The General Studies and the second year of a foreign language (French recommended).

General College courses: 21, 29, 30, 43, 45, 57, 59, 60, 69, 90, and Engineering Graphics 21.

Upper College courses: 102, 105, 115, 116, 131, 132, either 151-152 or 171-172, 200, 201, 202, 209, and six credits of Art electives.

BIOLOGY

In addition to the General Studies, Biology major students must obtain 36 credits in biology. A greater total may be necessary to meet all preparatory requirements of graduate departments of botany, zoology, and some others. Major students must take 21-22 in their first or second year.

Upper College courses may be: (1) General Biological, which may include any combination of Upper College biology courses, but including 265; (2) Zoological, which must include 265, 146, and as many of the following as feasible: 141, 144, 258, 255, 256, 135-136; (3) Botanical, which must include 265, 113-114, 215-216, 146 or 217, or at least one semester of 207-208.

Biological Problems 267-268 is open to seniors, and in exceptional cases to juniors who desire to work on some definite problems.

Required work in other departments: Chemistry 21-22 or 23-24 (for some biological work organic chemistry is also essential); Psychology 41, and either German 43-44 or French 43-44.

PRE-MEDICAL

First Year

	First Semester	Credits		Second Semester	Credits
1:1	Written English	3	1:2	Written English	3
1:15	Institutions in U.S.	4	1:16	Institutions in U.S.	3
1:21	Physical Education	0.5	1:22	Physical Education	0.5
	ROTC 11 or 13*	1.5		ROTC 12 or 14*	1.5
5:21	Gen. Inorganic Chem.	4	5:22	Gen. Inorganic Chem.	4
17:24	Algebra Trig.	4		Elective	2

Second Year

1:5	English or 1:8 Speech	3	1:5	English or 1:8 Speech	3
	ROTC 43 or 53*	1.5		ROTC 44 or 54*	1.5
5:43	Qualitative Analysis	5	5:44	Elementary Organic	4
10:21	German	4	10:22	German	4
3:21	Prin. Biology	4	3:22	Prin. Biology	4

* Women majors will substitute six hours electives for ROTC. Men wishing to take advanced ROTC may be required to attend summer school to complete requirements. A pre-dental major program comprises the same courses as the first three years of the pre-medical major.

Third Year

3:255	Anatomy	4	3:256	Embryology	4
20:25	Physics	4	20:26	Physics	4
10:43	German	3	10:44	German	3
5:107	Interm. Organic	4	1:103	E. Civ. or 3:248 Genetics	3 or 2
	Elective	3		Elective	2

Fourth Year

3:235	Physiology	3	1:103	E. Civ. or 3:248 Genetics	3 or 2
5:105	Quant. Analysis	4	1:101	Senior Seminar	2
30:41	Psychology	3	30:43	Psychology	3
1:17	Western Cult. Trad.	3	1:18	Western Cult. Trad.	3
	Elective	3		Elective	3

MEDICAL TECHNOLOGY COURSE

Three years (96 credits) at The University of Akron

*First Year**

	First Semester	Credits		Second Semester	Credits
1:1	Written English	3	1:2	Written English	3
1:15	Institutions in the U.S.	3	1:15	Institutions in U.S.	3
1:21	Physical Education	0.5	1:21	Physical Education	0.5
5:23	Inorganic Chemistry	3	5:24	Inorganic Chemistry	3
3:21	Prin. Biology	4	3:21	Prin. Biology	4
	Elective	3		Elective	3

*Second Year**

1:5	English or 1:8 Speech	3	1:5	English or 1:8 Speech	3
3:91	Physiology	4	30:41	Psychology	3
3:127	Histol. Technique	2	3:128	Histology	3
5:55	Organic Chemistry	3	5:56	Physical Chem.	3
3:143	Parasitology	4	1:11	Numbers Communication	2

Third Year

3:207	Bacteriology	4	3:208	Bacteriology	4
5:47	Analytical Chem.	4	5:48	Analytical Chem.	4
20:25	Physics or Elective	4	20:26	Physics or Elective	4
1:17	West. Cult. Trad.	3	1:18	Western Cult. Trad.	3
				Elective	3

PROFESSIONAL TRAINING

The three-year University curriculum is followed by 12 months of medical technology instruction in one of the five approved schools of medical technology in the Akron area, City Hospital, Akron General Hospital, St. Thomas Hospital, Children's Hospital, or Barberton Citizens Hospital.

The hospital period is completed by taking the examination of the Registry of Medical Technologists, which grants the certificate M.T. (A.S.C.P.). The University grants the B.S. in Medical Technology after receipt of evidence that the examination has been passed.

* Men will enroll in Basic ROTC for additional 1.5 credits per semester during the first and second years.

CHEMISTRY

Requirements for a major:

The General Studies and German 43-44.

General College courses: 21-22, 43, 44; Mathematics 24, 43, 45, 46; Physics 31-32.

Upper College courses: 105-106, 107, 108, 118, 151-152.

ECONOMICS

Requirements for a major:

The General Studies and (except in Labor Relations) the second year of a foreign language.

At least 24 credits in the department including 45-46 (which is prerequisite to all Upper College courses).

LABOR RELATIONS AND LABOR ECONOMICS MAJOR PROGRAM

First Year

	First Semester	Credits		Second Semester	Credits
1:1	Written English	3	1:2	Written English	3
1:15	Institutions in the U.S.	3	1:16	Institutions in the U.S.	3
1:11	Numbers Communication	2	1:22	Physical Education	0.5
1:21	Physical Education	0.5		ROTC 12 or 14*	1.5
	ROTC 11 or 13*	1.5	21:41	American Government	3
22:41	General Sociology	3		Elective	3
	Elective	3			

Second Year

1:5	Written English or 1:8 Speech	3	1:8	Speech or 1:5 Written Eng.	3
1:13	Reasoning & Understanding in Science	3	1:14	Reasoning & Understanding in Science	3
40:147	Economic Statistics	3	6:46	Economic Principles	3
6:45	Economic Principles	3	30:41	General Psychology	3
	ROTC 43 or 53*	1.5		ROTC 44 or 54*	1.5
	Elective	3		Elective	3

Third Year

1:17	West. Cult. Trad.	3	1:18	West. Cult. Trad.	3
40:163	Personnel Management	2	40:264	Personnel Relations	3
6:106	Labor Problems	3	6:148	Money and Banking or	
39:121	Accounting Survey	3	6:208	Public Finance	3
	Electives	6		Electives	6

Fourth Year

1:101	Senior Seminar or 1:103 Eastern Civilizations	2 or 3	1:103	Eastern Civilization or 1:101 Senior Seminar	2 or 3
6:239	American Labor and the Government	3	6:260	The Economics of Collective Bargaining	3
	Upper College Economics	3		Upper College Economics	3
	Upper College Sociology or Upper College Psychology	3		Upper College Pol. Science or Upper College Sociology	3
	Elective	5		Elective	3
			6:296	Thesis	2

* Women majors will substitute six hours for electives for ROTC.

ENGLISH

Requirements for a major:

The General Studies and the second year of a foreign language.

Twenty-six credits in the department including 46, 65-66, excluding 82, 133, 134, including six credits from 41, 72, 73, 155, 163, 164, 201, 209, 212, and six credits from 121, 122, 202, 213, 214, 217, 221, 222, 223, 240.

HISTORY

Requirements for a major:

The General Studies and the second year of a foreign language.

At least 24 credits in the department including 41-42, 45-46, or their equivalents, and 242.

The Graduate Record Examination or a general final examination may be required.

HOME ECONOMICS

Requirements for a major:

The General Studies and the second year of a foreign language.

General College courses: 21, 23, 45, 46, 53, 6:82. In addition, Foods and Nutrition majors will take 5:23, 5:24, 5:55, 5:56, 3:91.

Upper College courses as follows depending upon the major selected:

FOODS AND NUTRITION

Third Year

First Semester	Credits	Second Semester	Credits
13:212 Institutional Management	3	13:216 Quantity Cookery	3
13:115 Experimental Foods	3	13:65 Child Development	3
3:107 Bacteriology	4	13:118 Meal Service and Demonstration Foods	3

Fourth Year

13:119 Nutrition in Health	3	13:120 Nutrition in Disease	3
27:151 Education	3	13:121 Field Work	3

TEXTILES AND CLOTHING

Third Year

13:105 Tailoring	3	13:106 Advanced Clothing	3
13:62 Home Management	3		

Fourth Year

13:107 Advanced Textiles	3	13:58 Selection of House Furnishings	3
13:117 Historic Costume	3	13:65 Child Development	3

GENERAL COURSE

Third Year

13:119 Nutrition	3	13:65 Child Development	3
13:62 Home Management	3	13:118 Meal Service and Demonstration Foods	3

Fourth Year

13:215 Household Equipment	3	13:58 Selection of House Furnishings	3
13:105 Tailoring	3	13:106 Advanced Clothing	3

LATIN AND GREEK

Requirements for a major:

The General Studies.

At least 24 credits in the department including 43-44, 61-62, and 113-114.

MATHEMATICS

Requirements for a major:

The General Studies and French or German 43-44.

At least 24 credits in the departments including 24, 43, 45, 46, 204 and at least five credits in other Upper College courses.

The courses 17:18 and 1:11 do not meet major requirements.

MODERN LANGUAGES

Requirements for a major:

The General Studies.

At least 24 credits in one of the languages, including six credits on the 200 level.

Students who have completed two years in one of the languages in high school must take a placement test and have a conference with a member of the department before enrolling. Students with one year or less will enroll in 21.

Students planning to teach should have credit for the Conversation and Composition course in the language they wish to teach.

MUSIC

Requirements for a major leading to the Bachelor of Arts degree:

The General Studies and the second year of a foreign language.

At least 30 credits in the department including 22, 43, 44, 101, 102, 103, 104, participation in a music organization for four semesters, study of piano until passage of jury examination in functional piano. Recommended but not required: 19:111 Aesthetics, 19:112 Philosophy of Art. Further courses in music may be taken as electives. However, no more than four credits in music organizations and no more than eight credits in applied music may be included in the minimum 128 credits required for the degree. It is recommended that students attend the weekly Student Recital, participate in music organizations and continue their private study of applied music beyond these minimum requirements.

The B.A. music major is intended as a cultural course or as preparation for graduate study but not as professional preparation for a musical or teaching career.

Requirements for a major leading to the Bachelor of Music degree:

The General Studies and the second year of a foreign language.

Thirty-two credits in applied music, eight credits in music organization, four credits in 30, four credits in 130, 22, 43, 44, 101, 102, 103, 104, 110, 111, 114, 201, 202, passage of jury examination in functional piano, presentation of a senior recital. A junior recital is recommended but not required.

The B.M. program is available only to those students who upon entrance can demonstrate a satisfactory level of accomplishment in musical performance. Study of applied music will be directed according to the student's choice of medium and his career goal.

By extending either the B.A. or B.M. programs to five years, the student may, with careful planning, take the courses in education, psychology, and music education required for teaching certification. Both the B.A. and B.M. degrees may be earned in a combination five-year program.

The jury examination in functional piano will be scheduled at the end of any semester by request of the student and will consist of satisfactory performance in the following areas:

1. Prepared accompaniments for elementary teaching pieces, songs or school choruses.
2. Sight reading of familiar hymns, community songs or simple accompaniments.
3. Harmonization at the piano of familiar melodies in familiar keys.
4. Preparation and performance by the student alone, of an easy piece for the piano, selected by the teacher not more than two weeks before the examination.

PHILOSOPHY

Requirements for a major:

The General Studies and the second year of a foreign language.

At least 24 credits in the department including 103-104.

PHYSICS

Requirements for a major:

The General Studies and the second year of a foreign language. (Preferably German or Russian.)

At least 34 credits in the department.

Mathematics 24, 43, 45, 46, 204; Chemistry 21-22.

Courses 20:25 and 20:26 do not meet major requirements.

POLITICAL SCIENCE

Requirements for a major:

The General Studies and the second year of a foreign language.

At least 24 credits in the department.

PSYCHOLOGY

Requirements for a major:

The General Studies and the second year of a foreign language.

At least 24 credits in the department including 41, 47, 215, 216.

Mathematics 57.

SOCIOLOGY

Requirements for a major:

The General Studies and the second year of a foreign language.

At least 24 credits in the department including 41, 42, 101-102, 206, 210, 215.

Sociology 41 is prerequisite to all Upper College courses in the department unless waived by the department head.

SPEECH

Requirements for all speech majors:

The General Studies and the second year of a foreign language.

For general speech majors:

General College courses: 41, 51, 71 or 104 and 76. In addition, if planning to teach speech with Liberal Arts degree, required in English: 37, 38, 42, 46, 65, and 66.

Upper College courses: 290, 297, and at least eight additional speech credits including a theatre course and a radio-TV course.

For speech correction majors:

General College courses: 41, 51, 71, 76. Psychology: 41. Biology: 91.

Upper College courses: 104, 114, 171, 270, 271, 272, 273, 274, 297. Psychology: 107, 204.

Students wishing to meet requirements for state certification in speech correction must take additional courses. For these courses, consult the director of the Speech Clinic.

Comprehensive Listing of Subjects of Instruction

THE BUCHTEL COLLEGE OF LIBERAL ARTS

ART

GENERAL COLLEGE

2:21. DESIGN. *Either semester.* 2 *credits.*
Basic principles of creative design and color theory. Discussion and studio.

2:23-24. COSTUME-STYLES AND FASHION. 2 *credits each semester.*
Desirable that 21 precede this course. Design as applied to costume, contributing influences, the human figure, occasion and personality. Discussion and studio. No credit toward major.

2:29-30. ART APPRECIATION. 2 *credits each semester.*
A foundation for critical evaluation of visual arts, through basic principles of design as applied to our environment, past and present, possibilities and limitations of materials in relation to design. Lecture and discussion.

2:33-34. HOUSE PLANNING AND DECORATION. 2 *credits each semester.*
Desirable that 21 precede this course. Historic and contemporary styles in housing, interiors, furniture, textiles, etc. Discussion and studio. No credit toward major.

2:37-38. DESIGN AND COMPOSITION IN COMMERCIAL ART. 2 *credits each semester.*
Desirable that 21 or 45 precede this course. Principles of design as applied to commercial art, color theory, lettering, layout, reproduction processes. Discussion and studio. No credit toward major.

2:43. INDUSTRIAL DESIGN. 2 *credits.*
Prerequisites, 21 and Engineering Graphics 21. Materials and process requirements necessary to design for mass production. Discussion and studio.

2:45. DRAWING. 2 *credits.*
Prerequisite, 21 or permission of Head of Department. Fundamentals of graphic expression: perspective, development of form and space in line, value and texture through variety of media and techniques. Studio.

2:50-51. DRAWING AND PAINTING. 2 *credits each semester.*
Desirable that 45 precede this course. An introduction to painting, understanding and appreciation through application of fundamentals of color and composition. First semester, oil; second semester, water color. Studio. No credit toward major.

2:57. DESIGN IN CRAFTS. 2 *credits.*
Prerequisite, 21. Extension of design to objects in space; emphasis on the continuous interaction of physical materials, structural processes and significance of the total organization. Studio.

2:59. CERAMICS. 2 *credits.*
Prerequisite, 21. Design through the use of forming processes (hand-built and wheel), decorating, glazing, firing processes. Studio.

2:60. CERAMICS. 2 *credits.*

Prerequisite, 59. Advanced work in ceramic design, sculpture, molds, and glazes. Studio.

2:69. LIFE DRAWING. 2 *credits.*

Prerequisite, 45. Structure of the human figure: its anatomy, proportion and articulation as they relate to the visual arts. Studio.

2:75. HISTORY OF ART, ANCIENT, CLASSICAL AND MEDIEVAL. 2 *credits.*

Architecture, painting, sculpture, and minor arts, from prehistoric times to close of Middle Ages. Lecture. No credit toward major.

2.76. HISTORY OF ART, RENAISSANCE AND BAROQUE. 2 *credits.*

Arts of Western Europe (with exception of France) from close of Middle Ages to 1850. Lecture. No credit toward major.

2:77. HISTORY OF ART, MODERN. 2 *credits.*

Arts of France from Gothic to present, art in United States, contemporary movements. Lecture. No credit toward major.

2:90. ADVANCED DRAWING. 2 *credits.*

Prerequisite, 69. Drawing as an expressive, independent art form; development of creative attitudes through individual exploration of various media and techniques. Studio.

UPPER COLLEGE

2:102. ADVANCED DESIGN IN CRAFTS. 2 *credits.*

Prerequisite, 57. Advanced problems of greater complexity and broader scope: individual exploration of sculptural and structural potentials of materials. Studio.

2:105. GRAPHIC ARTS. 2 *credits.*

Prerequisite, 69. Design related to screen printing (film and touche), wood cut, wood engraving, acid and dry point etching. Studio.

2:106-107. WEAVING. 2 *credits each semester.*

Prerequisite, 21. Design related to weaving processes, warping and threading of looms, plain and pattern weaving, use of different looms and materials. Studio.

2:108-109. METAL CRAFT. 2 *credits each semester.*

Prerequisite, 21. Creative design in terms of metals and processes, hammering, piercing, etching, stone setting, enameling. Studio.

2:115-116. PAINTING. 2 *credits each semester.*

Prerequisite, 90 or permission. Creative and individual expression through painting media, color and composition, experimentation in techniques. First semester, oil; second semester, water color. Studio.

27:121. ART FOR THE GRADES. 2 *credits.*

Prerequisite, 21. Art requirements in elementary grades; laboratory work to give teachers a knowledge of materials, mediums, and skill in handling them.

2:131-132. COMMERCIAL ART. 2 *credits each semester.*

Prerequisite, 90. Professional approach to creative advertising art, lettering, layout, "finished art" techniques, reproduction processes. Studio.

2:151-152. COSTUME DESIGN. 3 *credits each semester.*

Prerequisite, 69. Professional creative dress design, historic costume as source material. Discussion and studio.

2:171-172. INTERIOR DESIGN. 3 *credits each semester.*

Prerequisite, 57, 45, and Engineering Graphics 21. Professional approach to interior design, problems in house planning and furnishings, historic and contemporary furniture and interiors. Lectures, discussions, and studio.

2:179. BOOK ILLUSTRATION. 2 *credits.*

Prerequisite, 90. Professional approach to book illustration, different age levels, the book as an art form. Studio.

27:191. METHODS IN TEACHING ART. 3 *credits.*

Prerequisite, completion of the required course for art teachers. Study of trends and procedure in teaching and supervision; relation of art to the home, school, and community; observation in selected schools.

2:200. HISTORY OF ART, ANCIENT, CLASSICAL AND MEDIEVAL. 3 *credits.*

Architecture, sculpture, painting and the minor arts in environment of Prehistoric, Egyptian, Mesopotamian, Aegean, Greek, Roman, Early Christian, Byzantine, Romanesque, and Gothic civilizations. Lecture.

2:201. HISTORY OF ART, RENAISSANCE AND BAROQUE. 3 *credits.*

The arts in Italy, Spain, Flanders, Holland, Germany, and England within their respective backgrounds. Lecture.

2:202. HISTORY OF ART, MODERN. 3 *credits.*

The arts in France from Gothic period, art in United States, influences leading to contemporary movements. Lecture.

2:203-204. HISTORY OF ART SEMINAR. 3 *credits each semester.*

Prerequisite, permission of Head of Department. A restricted field of study to be selected.

2:209. ADVANCED LIFE DRAWING. 2 *credits.*

Prerequisite, 90. A more fully developed conception of creative design in terms of the human figure and its significance as a fundamental expressive element. Studio.

2:225-226. SPECIAL PROBLEMS IN ART. 3 *credits each semester.*

Prerequisite, permission of Head of Department. Problems of an advanced nature in the field of special interest. Studio.

BIOLOGY

GENERAL COLLEGE

3:21-22. PRINCIPLES OF BIOLOGY. 4 *credits each semester.*

Selected biological principles will be treated in historically oriented lectures, and illustrated by studies in the laboratory. The first semester will deal with principles most easily illustrated by plant materials, the second with those best treated in connection with animals, but neither semester is to be exclusively botany or zoology. Not open to students who have credit in 3:51-52 or 3:61-62.

3:33. MICROBIOLOGY. 3 *credits.*
Sterilization, immunity and disease. Designed primarily for nursing students. Laboratory.

3:35-36. NATURE STUDY. 3 *credits each semester.*
Common plants and animals of this region, their life, habits and inter-relations. Adapted to use of teachers of nature study. Some field trips.

3:41-42. GENERAL GEOLOGY. 4 *credits each semester.*
The earth, its materials, surface features, and changes during the ages. Laboratory.

3:47-48. ANATOMY AND PHYSIOLOGY. 3 *credits each semester.*
Anatomy of human body, chiefly gross anatomy of all organ systems, and their functions or processes. Not open to biology and pre-medical majors. Laboratory.

3:55. INTRODUCTION TO VERTEBRATE ANATOMY. 4 *credits.*
An introductory course in Vertebrate Anatomy, designed to stimulate interest in this area of Biology, and to provide some practical experience in the dissection and display of the major organs in a variety of vertebrates, including fish, amphibians, reptiles, birds and mammals. Laboratory.

3:77. INTRODUCTORY BACTERIOLOGY. 2 *credits.*
Basic principles of morphology, growth and techniques. Offered as an 8-week course of engineers, others by permission. Laboratory.

3:82. CONSERVATION OF NATURAL RESOURCES. 3 *credits.*
Principles and practice of conservation of mineral, plant, and animal resources.

3:91. INTRODUCTORY HUMAN PHYSIOLOGY. 4 *credits.*
Physiology or functioning of human body. Processes operating in organ systems. Not open to pre-medical majors. Laboratory.

UPPER COLLEGE

3:113-114. FIELD BOTANY. 3 *credits each semester.*
Classification and recognition of plants, principally seed plants of the region. 22 is desirable as background. Laboratory.

3:127. HISTOLOGICAL TECHNIQUE. 2 *credits.*
Prerequisite, 22. Methods of preparation of tissues and other specimen materials for microscopical study. Six hours of laboratory work a week.

3:128. HISTOLOGY. 3 *credits.*
Prerequisite, 22. Study of animal tissues. Laboratory.

3:135-136. HUMAN PHYSIOLOGY. 3 *credits each semester.*
Prerequisite, 22 or equivalent, and some beginning Chemistry. Physiology or function of human body, processes going on in all organ systems, including metabolism and blood. Not open to pre-medical majors. Laboratory.

3:141. INVERTEBRATE ZOOLOGY. 4 *credits.*
Prerequisite, 22. Invertebrate groups, their classification, anatomy and life history of representative groups. Laboratory.

3:143. INTRODUCTION TO PARASITOLOGY. 4 *credits.*

Prerequisite, 22. Principles of parasitism; survey of the more important human and veterinary parasitic diseases.

3:144. GENERAL ENTOMOLOGY. 4 *credits.*

Prerequisite, 22. Insects, their nature, structure, life history, and economic importance; insect orders, representative families and types. An insect collection is made.

3:146. GENERAL GENETICS. 3 *credits.*

Principles of heredity illustrated by plant and animal organisms. 22 or equivalent desirable as background.

3:147. GENETICS LABORATORY. 1 *credit.*

Prerequisite or corequisite, 3:146 or 3:248. Experiments using selected strains of Drosophila (fruit fly) used to illustrate inheritance, will form the basic format of the course. Techniques, using molds and higher plants will also be introduced. Methodology in human genetics research will be treated each time it is offered but will be a larger proportion of the course when offered with 3:248 Human Genetics.

3:207-208. BACTERIOLOGY. 4 *credits each semester.*

Prerequisites, 22 and Chemistry 22 or 24. Microorganisms, principles of growth, sterilization, infection, immunity, and public health. The physiology or bacteria and pathogenic organisms. Laboratory.

3:215-216. PLANT PHYSIOLOGY. 4 *credits each semester.*

Prerequisite, 22. Structure of cells, tissues and organs of land plants, relation of structure to utilization of plants. Laboratory.

3:217. PLANT ANATOMY. 4 *credits.*

Prerequisite, 22. Structure of cells, tissues and organs of land plants, relation of structure to utilization of plants. Laboratory.

3:218-219. PLANT MORPHOLOGY. 4 *credits each semester.*

Prerequisite, 22. Algae and fungi; evolution of cells, tissues, body plants, organ systems, sexual and asexual reproduction. Liverworts and mosses; ferns and their relatives; vegetative and reproductive adaptations to land environment; evolution of seeds; lower seed plants; flowering plants. Laboratory.

3:235. GENERAL PHYSIOLOGY. 3 *credits.*

Prerequisite, Chemistry 44. Fundamental life processes as exhibited in organisms, especially in organ systems of higher vertebrates. Laboratory.

3:248. HUMAN GENETICS. 2 *credits.*

Prerequisite, 22. Principles of heredity as illustrated by the human species; eugenics problems.

3:251. ANATOMY AND PHYSIOLOGY OF SPEECH. 3 *credits.*

Prerequisites, 3:22 or 3:91 or 3:55 and 24:76. This course, designed for both biology and speech students, considers speech as a basic biological process. It briefly surveys anatomical concepts of bodily organization, and studies in more detail the anatomy and physiology of body regions and organs, which are both directly and indirectly responsible for speech. Laboratory.

3:255. VERTEBRATE ANATOMY. 4 *credits.*

Prerequisite, 22. Comparative study of all organ systems from fishes to mammals. Laboratory.

3:256. EMBRYOLOGY OF VERTEBRATES. 4 *credits.*

Prerequisite, 255. General embryonic development of vertebrates and relatives, detailed embryology of frog and chick. Laboratory.

3:257. EXPERIMENTAL EMBRYOLOGY. 2 *credits.*

Prerequisite or corequisite, 3:256. A survey of the field of Experimental Embryology emphasizing basic terminology, definitions, and the principles and experimental methods of investigating basic processes in the various phases of vertebrate embryology. Laboratory.

3:258. VERTEBRATE ZOOLOGY. 3 *credits.*

Prerequisite, 22. Classification of vertebrates, primitive fishes through mammals, classes, orders, families and representative types. Laboratory.

3:265-266. BIOLOGY SEMINAR. 1 *credit each semester.*

Discussions and written reports on biological books and papers from current literature.

3:267-268. BIOLOGICAL PROBLEMS. 1 *to* 3 *credits each semester.*

Individual problem work of laboratory type. Open to Seniors and in exceptional cases to Juniors. Two continuous semesters are advisable.

GRADUATE COURSE

3:367-368. RESEARCH. 3 *or more credits each semester.*

Individual problem work of advanced nature.

CHEMISTRY

GENERAL COLLEGE

5:21-22. GENERAL INORGANIC CHEMISTRY. 4 *credits each semester.*

Basic facts and principles of chemistry; occurrence, preparation, and properties of the elements; production and properties of more important compounds with emphasis on inorganic chemistry. Laboratory experiments illustrate principles studied.

5:23-24. INORGANIC CHEMISTRY. 3 *credits each semester.*

Designed primarily for students in Home Economics and for laboratory technicians. Fundamental laws and theories of chemistry; the more important elements and their compounds. Laboratory.

5:25. CHEMISTRY FOR NURSES. 3 *credits.*

Planned especially for students taking nurses' training course in hospitals. Fundamentals of inorganic, organic, and physiological chemistry.

5:27-28. GENERAL INORGANIC CHEMISTRY FOR ENGINEERS. 4 *credits each semester.*

See description for 21-22.

5:43. QUALITATIVE ANALYSIS. 5 *credits.*

Prerequisite, 22. Mathematical aspects of chemical equilibrium; semimicro method in the laboratory for separation and identification of ions.

5:44. ELEMENTARY ORGANIC CHEMISTRY. 4 *credits.*
Prerequisite, 22. Introduction to aliphatic and aromatic compounds. Laboratory.

5:47-48. ANALYTICAL CHEMISTRY FOR LABORATORY TECHNICIANS. 4 *credits each semester.*
Prerequisite, 22 or 24. Intended primarily for students preparing to become laboratory or hospital technicians. Elementary theory and calculations in qualitative and quantitative analysis, laboratory exercises, methods and instruments used in hospital laboratories.

5:55. ORGANIC CHEMISTRY. 3 *credits.*
Prerequisite, 24. Designed especially for students in Home Economics. Laboratory.

5:56. PHYSIOLOGICAL CHEMISTRY. 3 *credits.*
Prerequisite, 55. Continuation of 55. Chemistry of digestion, absorption, and metabolism. Laboratory.

UPPER COLLEGE

5:105-106. QUANTITATIVE ANALYSIS. 4 *credits each semester.*
Prerequisite, 43. Theory, technique and calculations, acidimetry and alkalimetry, oxidation and reduction, volumetric precipitation; gravimetric methods, systematic analysis, analysis of common ores, minerals and alloys.

5:107. INTERMEDIATE ORGANIC CHEMISTRY. 4 *credits.*
Prerequisite, 44. Aliphatic and alicyclic compounds. Laboratory.

5:108. ADVANCED ORGANIC CHEMISTRY. 4 *credits.*
Prerequisite, 107. Aromatics, heterocyclics, special topics. Laboratory.

5:118. CHEMICAL CALCULATIONS. 2 *credits.*
Prerequisites, 43, 44, 105, Mathematics 46. Application of calculus to problems in physical chemistry; mathematical technique of correlating fundamentals of physics to chemistry.

5:151-152. PHYSICAL CHEMISTRY. 5 *credits each semester.*
Prerequisites, 106, 107, 118, Physics 52, Mathematics 46. Gases, thermodynamics, thermochemistry, solutions, dilute solutions, chemical equilibrium, phase rule, chemical kinetics, electrochemistry, electrolytic equilibria, atomic and molecular structure. Laboratory experiments to illustrate principles.

5:201. BIOCHEMISTRY. 3 *credits.*
Prerequisite, 108. Constituents of cells and tissues, their organic and fundamental physical chemical properties. Proteins, enzymes, vitamins, carbohydrates, fats, energy relationships, intermediary metabolism.

5:250. INDUSTRIAL CHEMISTRY. 2 *credits.*
Prerequisites, 106, 107. Chemical engineering unit operations considered in nonmathematical language, basic principles of instrumentation, manufacture of various inorganic and organic chemicals.

GRADUATE COURSES

5:307-308. QUALITATIVE ORGANIC ANALYSIS. 2 *credits each semester.*
Prerequisites, 106, 108. Characterization and identification of organic substances, separation and identification of components of organic mixtures. Laboratory.

5:309. MICRO-QUANTITATIVE ORGANIC ANALYSIS. 2 *credits.*

Prerequisites, 106, 108, and permission. Micro-quantitative analytical methods for determination of carbon, hydrogen, nitrogen, sulfur, and halogens in organic substances. Laboratory.

5:310. SPECIAL TOPICS IN ORGANIC CHEMISTRY. 2 *credits.*

Prerequisite, 108. Topics in advanced organic chemistry such as terpenes, dyestuffs, medicinals, alkaloids, heterocyclic compounds, carbohydrates, proteins, etc.

5:311-312. ADVANCED ORGANIC CHEMISTRY. 2 *credits each semester.*

Prerequisite, 108 and permission. Modern structural theory, resonance, reaction mechanisms, stereo-chemistry, rearrangements, free radicals, formation of carbon to carbon bonds.

5:315-317. INSTRUMENTAL METHODS OF ANALYSIS. 3 *credits each semester.*

Prerequisites, 107, 152 or permission. Theory and application of analytical techniques based on electrical, optical and chromatographic methods. Laboratory.

5:319-320. ADVANCED INORGANIC CHEMISTRY. 2 *credits each semester.*

Prerequisite, 152. Concepts of atomic structure integrated in systematic classification of elements. Periodic table. Study of elements and compounds according to periodic grouping.

5:321-322. ADVANCED INORGANIC PREPARATIONS. 1 *credit each semester.*

Prerequisites, 106, 152. Methods for preparing and purifying inorganic compounds, crystallization, distillation, sublimation, precipitation, and liquefaction. Laboratory.

5:325. COLLOID CHEMISTRY. 2 *credits.*

Prerequisites, 106, 107. Properties of colloids, kinetic, interfacial and electrical, stability. Lyotropic series applied to emulsoids and suspensoids. Gels, emulsions and foams, size-shape relationships.

5:335-336. ADVANCED PHYSICAL CHEMISTRY. 2 *credits each semester.*

Prerequisite, 152. Thermodynamics, fugacity solutions, partial molar quantities, atomic-molecular structure, quantum-statistical principles.

5:337-338. ADVANCED PHYSICAL CHEMISTRY LABORATORY. 1 *credit each semester.*

Prerequisite, 152. 335-336 must be taken concurrently. Laboratory experiments to illustrate topics listed under 335-336.

5:339. ADVANCED CHEMICAL THERMODYNAMICS. 2 *credits.*

Prerequisite, 336. Thermodynamics of solutions, calculation of thermodynamic functions from statistical data, activities of electrolytes and Debye-Huckel Theory, reaction kinetics, solution phase.

COURSES IN RUBBER AND POLYMERS

5:301-302. CHEMISTRY OF POLYMERS. 2 *credits each semester.*

Prerequisite, 108. Definitions and classification of polymeric substances into fibers, plastics and rubbers. Sources, structures and properties of naturally occurring polymers. Survey of monomers. Methods of preparation, structure and properties of organic and inorganic polymers. Mechanism of condensation and addition polymerization reactions.

5:303-304. CHEMISTRY OF POLYMERS LABORATORY. 2 *credits each semester.*

Prerequisite, 108. 301-302 must be taken concurrently. Preparation of different polymers to illustrate methods of polymerization and properties of polymers discussed in 301-302.

5:326. CHEMISTRY OF LATEX LABORATORY. 2 *credits.*

Prerequisite, permission. Chemical and physical properties of natural and synthetic latex, concentration, compounding, testing of cast and dipped films, preparation of foam rubber.

5:327-328. CHEMISTRY OF RUBBER TECHNOLOGY. 2 *credits each semester.*

Prerequisites, 106, 107 or permission. First semester: molecular structure and chemical reactions of natural rubber, role of compounding ingredients and mechanism of vulcanization. Second semester: study of industrial methods of production of synthetic elastomers, and their properties.

5:329-330. CHEMISTRY OF RUBBER LABORATORY. 2 *credits each semester.*

Prerequisites, 106, 107. Chemical analysis of rubber and rubber compounds, identification and chemical reactions of natural and synthetic rubbers, compounding, vulcanization, and testing of elastomers.

5:331-332. PHYSICAL CHEMISTRY OF HIGH POLYMERS. 2 *credits each semester.*

Prerequisite, 152. Mechanism and kinetics of condensation polymerization, including molecular weight distribution and network formation. Kinetics of addition polymerization and copolymerization, including molecular weight distribution, three-dimensional polymerization and emulsion polymerization. Thermodynamics of dilute and concentrated solutions of high polymers. Solution methods for determination of molecular weight including osmotic pressure, light scattering, sedimentation and viscosity. Dimensions of polymer molecules in solution.

5:333-334. EXPERIMENTAL PHYSICAL CHEMISTRY OF POLYMERS. 2 *credits each semester.*

Prerequisite, 152, 331-332 must be taken concurrently. Laboratory experiments to illustrate method and principles discussed in 331-332.

5:343-344. MECHANICAL BEHAVIOR OF POLYMERS. 2 *credits each semester.*

Prerequisites, 332 or permission. Physical properties and mechanical behavior of elastomers, plastics and fibers. Present-day theories. Physical behavior of polymers related to their molecular constitution.

5:365. MASTER'S RESEARCH. 1 *to* 6 *credits.*

For properly qualified candidates for Master's degree. Supervised original research in fields of inorganic, analytical, physical, organic and polymer chemistry, depending on availability of staff and facilities.

5:401. DOCTORAL RESEARCH. 1 *to* 16 *credits each semester.*

Open to properly qualified students accepted as candidates for the degree of Doctor of Philosophy in Chemistry. At the present time, supervised original research may be undertaken in organic, inorganic or physical aspects of Polymer Chemistry, depending on availability of staff and facilities.

ECONOMICS

GENERAL COLLEGE

6:42. CURRENT ECONOMIC PROBLEMS. 3 *credits.*

Inflation, unemployment, fiscal policy, industrial conflict, international trade. For students who do not plan to pursue further studies in Economics.

6:45-46. PRINCIPLES OF ECONOMICS. 3 *credits each semester.*

Economic activity in modern industrial society, preparation for responsible participation in process of shaping public policy. No credit to students who have received credit in Economics 41.

6:82. 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.

UPPER COLLEGE

6:106. LABOR PROBLEMS. 3 *credits.*

Labor economics, principles, and public policy. Development of structure, objectives and policies of unions in the United States. Labor-management relation, negotiations of trade agreements, administration of grievance procedures, economic effects of union activities, problems of public control.

6:144. DEVELOPMENT OF ECONOMIC INSTITUTIONS. 3 *credits.*

Analytical survey of the origins and growth of the institutional frame of contemporary economic life in all its forms.

6:148. MONEY AND BANKING. 3 *credits.*

Institutions of money, banking, and credit, monetary expansion and contraction, public policies affecting this process, development of our money and banking system.

6:204. MONETARY AND BANKING POLICY. 3 *credits.*

Prerequisite, 148. Control over currency and credit, policies of control by central banks and governments, U.S. Treasury and Federal Reserve System.

6:208. PUBLIC FINANCE. 3 *credits.*

Tax systems and other sources of revenue of federal, state, and local governments; changing patterns of public expenditures; fiscal policy and debt management; economic effects of public policy.

6:210. COMPARATIVE ECONOMIC SYSTEMS. 3 *credits.*

Systems of economic organization, ranging from the theoretical extreme of unregulated private enterprise to that of Marxian communism. Comparison of actual system of mixed public and private enterprise in contemporary United States with the state socialism of the Soviet Union.

6:239. LABOR AND THE GOVERNMENT. 3 *credits.*

Prerequisite, 106. 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. Economic effects of public control.

6:242. QUANTITATIVE ECONOMICS. 3 *credits.*

Prerequisite, 6:46, 40:147. Quantitative relationships. Construction of static and dynamic models and their use in explanation, forecasting, and decision-making. Elements of linear-programming, activity analysis, game-theory.

6:260. THE ECONOMICS AND PRACTICE OF COLLECTIVE BARGAINING. 3 *credits.*

Prerequisite, 106 and General Business 264. 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.

6:265. SOCIAL SECURITY. 3 *credits.*

Development of social security and social insurance programs, workmen's compensation, retirement and survivor's insurance, unemployment compensation, sickness and disability insurance, economic effect of these programs.

6:268. INTERNATIONAL ECONOMIC RELATIONS. 3 *credits.*

Theory of international trade and foreign exchange, policies of free and controlled trade, international monetary problems, world economic planning.

6:293. DEVELOPMENT OF ECONOMIC THOUGHT. 3 *credits.*

Evolution of theory and method, relation of ideas of economists to contemporary conditions.

6:294. NATIONAL INCOME AND ITS VARIATIONS. 3 *credits.*

Changes in the national income, production, employment, price levels, long-term economic growth, short-term fluctuations of economic activity.

6:295-296. THESIS. 2 *credits each semester.*

Research and writing of thesis. Senior or graduate standing required. Undergraduate students can receive only 2 credits.

6:297. ECONOMIC FORECASTING. 3 *credits.*

Prerequisites, 6:46, 40:147. Relationship between facts and explanation. The techniques of making forecasts as basis for decisions in business and government as well as for the verification of hypotheses.

6:298. SEMINAR IN ECONOMICS. 3 *credits.*

Opportunity for advanced students to study special fields of Economics.

GRADUATE COURSE

6:341. ECONOMIC ANALYSIS. 3 *credits.*

Prerequisite, 6:46, 40:147. Recent developments in partial and general equilibrium theory. Statics and Dynamics. Review of mathematical programming, input-output analysis, activity analysis, game-theory. Decision and control processes in the allocation of resources and the distribution of income.

ENGLISH

GENERAL COLLEGE

7:37-38. REPRESENTATIVE AMERICAN WRITERS. 3 *credits each semester.*

First Semester; to 1865; second semester; 1865 to the present. (37 may not be taken

by students who have taken 47 or 219; 38 may not be taken by students who have taken 48 or 220.)

7:41. SHAKESPEARE. 3 *credits.*
Reading of 15 or more plays, with explanatory lectures and discussions.

7:42. THE MAKING OF MODERN ENGLISH. 3 *credits.*
Modern English usage, historical backgrounds, principles of descriptive grammar.

7:44. APPRECIATION OF DRAMA. 3 *credits.*
Courses 44, 45, 46 constitute an approach to critical reading.

7:45. APPRECIATION OF FICTION. 3 *credits.*

7:46. APPRECIATION OF POETRY. 3 *credits.*

7:65-66. ENGLISH LITERATURE. 3 *credits each semester.*
English Literature from Anglo-Saxon to modern times.

7:71. EUROPEAN BACKGROUNDS OF ENGLISH LITERATURE. 3 *credits.*
Representative French, German, Italian, and Spanish works, medieval to nineteenth century, in translation.

7:72. MODERN EUROPEAN LITERATURE. 3 *credits.*
Representative European writers from about 1850 to present.

7:73-74. THE ENGLISH BIBLE AS LITERATURE. 3 *credits each semester.*
Extensive readings in the Bible with reference to literary values. First semester: Old Testament, exclusive of Wisdom Books; second semester, Wisdom Books and New Testament.

UPPER COLLEGE

7:121-122. ENGLISH FICTION. 3 *credits each semester.*
First semester: Defoe to Scott; second semester, the Brontes to Hardy.

7:150. ADVANCED COMPOSITION. 3 *credits.*
Training in various forms of writing; frequent consultation with instructor.

7:155. CONTINENTAL DRAMA. 3 *credits.*
Masterpieces of the drama from the Greeks to the present. May not be taken by students who have had 103 or 104.

7:162. HISTORY OF THE ENGLISH LANGUAGE. 3 *credits.*
Development of English from Anglo-Saxon period to present.

7:163-164. ENGLISH DRAMA. 3 *credits each semester.*
First semester: from the Middle Ages to 1642; second semester: from the Restoration to Shaw.

7:201. CHAUCER. 3 *credits.*
"The Canterbury Tales" as one of the masterpieces of English poetry and as a reflection of medieval life.

7:202. SIXTEENTH-CENTURY LITERATURE. 3 *credits.*
Non-dramatic literature of Tudor period.

7:205. ANGLO-SAXON. 3 *credits.*
Anglo-Saxon language and literature, linguistic studies of Old English as a predecessor of Modern English, readings in "Beowulf" and in Anglo-Saxon prose.

7:207. MIDDLE ENGLISH. 3 *credits.*
Language and literature of the 11th to the 15th centuries, exclusive of Chaucer.

7:209. SHAKESPEARE. 3 *credits.*
Concentrated study of a few plays.

7:212. MILTON. 3 *credits.*
Concentrated study of selected prose and major poems.

7:213. SEVENTEENTH-CENTURY LITERATURE. 3 *credits.*
Non-dramatic literature from Bacon to Dryden.

7:214. EIGHTEENTH-CENTURY LITERATURE. 3 *credits.*
Work of Pope, Johnson, and other writers of the period.

7:217. NINETEENTH-CENTURY ENGLISH LITERATURE. 3 *credits.*
Romantic and Victorian literature, exclusive of drama and fiction. May not be taken by students who have taken 215 or 216.

7:221. AMERICAN LITERATURE I. 3 *credits.*
Colonial to early Nineteenth Century.

7:222. AMERICAN LITERATURE II. 3 *credits.*
Hawthorne to Henry James.

7:223. AMERICAN LITERATURE III. 3 *credits.*
Twentieth Century. May not be taken by students who have taken 108.

7:240. TWENTIETH-CENTURY ENGLISH LITERATURE. 3 *credits.*
May not be taken by students who have taken 108.

7:297-298. SEMINAR. 1 *or* 3 *credits each semester.*
Special studies, methods of literary research.

GRADUATE COURSE

7:301. RESEARCH. 3 *credits.*
Writing of thesis for Master of Arts degree.

7:303. MODERN LINGUISTICS. 3 *credits.*
Modern linguistic studies and methodology, particularly as these apply to American English.

7:311. INDIVIDUAL READING. 3 *credits.*
To provide opportunity for the student to advance himself by study under the direction of an instructor who will guide his reading and research.

7:322. SHAKESPEARE'S CONTEMPORARIES IN THE ENGLISH DRAMA. 3 *credits.*
Readings in such playwrights as Lyly, Marlowe, Jonson, and Beaumont and Fletcher, and in contemporary writings pertinent to the theatrical scene.

7:328. VICTORIAN POETS. 3 *credits.*
Major verse of Tennyson, Browning, and Arnold, related poetry and critical studies.

7:332. AMERICAN ROMANTIC FICTION. 3 *credits.*
The meaning of American Romanticism applied to the study of Poe, Hawthorne, and Melville.

7:338. REALISM AND NATURALISM IN AMERICAN FICTION. 3 *credits.*
Studies in Twain, Howells, James, Crane, Norris, and Dreiser.

7:340. LITERARY CRITICISM. 3 *credits.*
The development of European literary criticism from classical times to the present.

JOURNALISM

(Written English 1:2 is a prerequisite for all Journalism courses.)

GENERAL COLLEGE

7:31. NEWS WRITING. 2 *credits.*
Writing of news stores; applying theory through discussions, illustrative material; actual writing for publication.

7:32. NEWS WRITING. 2 *credits.*
Continuation of 31.

7:59. FEATURE WRITING. 2 *credits.*
Short newspaper and magazine articles; preparation of articles for publication; human interest situations; extensive writing with class dicussions.

7:82. CONTEMPORARY NEWSPAPERS. 2 *credits.*
Leading newspapers and newspapermen.

UPPER COLLEGE

7:133. EDITING. 2 *credits.*
Prerequisite, 32 or equivalent. Copyreading, headline writing, proofreading, make-up, type and typography, printing machines and processes, newspaper methods and systems.

7:134. EDITING. 2 *credits.*
Prerequisite, 133. Continuation of 133.

7:157. EDITORIAL WRITING. 2 *credits.*
Editorials as a special type of essay; logical reasoning, column writing, preparation of interpretative articles.

HISTORY

GENERAL COLLEGE

12:41. THE UNITED STATES TO 1865. 3 *credits.*
American history from period of Exploration and Discovery through the Civil War.

12:42. THE UNITED STATES SINCE 1865. 3 *credits.*
Reconstruction period to present.

12:43. ORIENTAL AND GREEK CIVILIZATIONS. 3 *credits.*
Development of Oriental and Greek civilizations; Greek political and historical thought, art, and ideals.

12:44. ROMAN CIVILIZATION. 3 *credits.*
Roman experience, historical, political, and cultural, from rise of Rome to early Christian times.

12:45. MODERN EUROPE TO 1815. 3 *credits.*
European history from Renaissance to Waterloo.

12:46. MODERN EUROPE SINCE 1815. 3 *credits.*
Waterloo to present.

12:49. MEDIEVAL EUROPE. 3 *credits.*
Middle Ages from Barbarian invasions to Renaissance; Christianity, Islam, feudalism, rise of nations, medieval heritage.

UPPER COLLEGE

12:161. THE WESTERN HEMISPHERE. 3 *credits.*
Latin America, Canada, European possessions in New World from discovery to present, correlating their history with that of United States to show element of unity in American history.

12:218. RENAISSANCE AND REFORMATION. 3 *credits.*
European history from 1400 to 1648; reawakening of intellectual interest, nation-states, religious struggles.

12:219. ENLIGHTENMENT AND REVOLUTION, 1648-1815. 3 *credits.*
Europe from Treaty of Westphalia to Treaty of Vienna; absolutism, enlightenment, French Revolution and Napoleon.

12:222. FROM COLONY TO NATION, 1607-1789. 3 *credits.*
The Colonial Period, the Revolution, the Confederation, adoption of the Constitution.

12:223. THE CIVIL WAR. 3 *credits.*
Slavery controversy, Civil War, Reconstruction.

12:225. THE OLD NORTHWEST. 3 *credits.*
Prerequisite, 41. French and British occupation of Ohio Valley and Great Lakes region; Northwest Territory and the states made from it; Western Reserve and Ohio to 1860.

12:227. THE UNITED STATES IN THE PROGRESSIVE ERA, 1890's TO 1921. 3 *credits.*
The 1890's, the progressive reform era, imperialism, World War I and its aftermath.

12:228. THE UNITED STATES SINCE THE TWENTIES, 1921 TO THE PRESENT. 3 *credits.*
Prosperity decade, depression, The New Deal, World War II and the postwar world.

12:242. HISTORIOGRAPHY. 3 *credits.*
Prerequisite, 12 credits in history. Historical writing in Europe and America; experience in research.

12:245. NINETEENTH CENTURY EUROPE, 1815-1914. 3 *credits.*
Europe from Congress of Vienna to World War I; revolutions of 1848; unification of Germany, Italy, background and causes of World War I.

12:246. THE AGE OF CONFLICT. 3 *credits.*
The two World Wars, rise of Fascism, Nazism and Communism; postwar adjustments.

12:250. RUSSIA TO 1855. 3 *credits.*
From the foundation of Kiev through the reign of Nicholas I.

12:251. RUSSIA SINCE 1855. 3 *credits.*
Factors shaping development of present-day Russia.

12:253. ENGLAND TO 1689. 3 *credits.*
Development of parliamentary government; constitution and common law.

12:254. ENGLAND AND THE EMPIRE. 3 *credits.*
Imperial expansion, policies; growth of Dominions; relations with India; Commonwealth since 1689.

12:260. CHINA AND THE FAR EAST TO 1914. 3 *credits.*
Early oriental cultures; contacts with the west; evolution of oriental cultures in response to western influences.

12:261. CHINA AND THE FAR EAST SINCE 1914. 3 *credits.*
Japanese imperialism; China's relation with Western World; Nationalism and Communism in China.

GRADUATE COURSES

12:301. RESEARCH. 3 *credits.*
Writing of thesis for Master of Arts degree.

12:311-312. INDIVIDUAL READING OR SEMINAR. 3 *credits each semester.*

HOME ECONOMICS

GENERAL COLLEGE

13:21. TEXTILES. 3 *credits.*
Natural and man-made fibers, their color, design, finishes and wearing quality, selection, use and care.

13:23. CLOTHING CONSTRUCTION. 3 *credits.*
Fundamental principles in use of patterns. Construction and fitting of garments. Line, design, color in relation to choice of material and pattern. Two or three garments will be made.

13:41. FOOD FOR THE FAMILY. 3 *credits.*
For non-majors. Application of nutrition to meal planning; problems in selection and buying of food on a budget; methods of food preparation; table etiquette, meal service, entertaining. One hour lecture, four hours laboratory.

13:42. FOOD FOR THE FAMILY. 3 *credits.*
Continuation of 41. One hour lecture, four hours laboratory.

13:43. FOODS AND NUTRITION. 3 *credits.*

For student nurses. Principles of nutrition and cookery; selection and care of food; dietary requirements on various age levels, analysis of student's own diet, racial differences in dietary habits; cookery for the invalid, tray service. Two hours lecture, two hours laboratory.

13:45. GENERAL FOODS. 3 *credits.*

Composition of foods and principles involved in selection, purchase, and preparation. One hour lecture, four hours laboratory.

13:46. GENERAL FOODS. 3 *credits.*

Continuation of 45. Meats, other protein foods, pastries. One hour lecture, four hours laboratory.

13:53. HOME ECONOMICS ORIENTATION. 1 *credit.*

History and development of home economics. Speakers from different professions open to home economics trained women.

13:58. SELECTION OF HOUSE FURNISHINGS. 3 *credits.*

Principles which contribute to a satisfactory selection and arrangement of home furnishings; selection of floor coverings, wall and window treatments, lighting, furniture, household textiles, china, glassware, silver, and accessories for the home in relation to styles of decoration, color, design, and cost.

13:62. HOME MANAGEMENT. 3 *credits.*

Operation and function of the home; human and material resources in the promotion of healthy family living; time, energy, and money management; purchase and use of household supplies and equipment.

13:65. CHILD DEVELOPMENT. 3 *credits.*

Physical, social, mental, and emotional development of the child in his first five years. Two hours lecture, two hours laboratory.

UPPER COLLEGE

13:105. TAILORING. 3 *credits.*

Prerequisite, 23. Develops skill through construction of a wool suit, coat or ensemble with lining. One hour lecture, four hours laboratory.

13:106. ADVANCED CLOTHING. 3 *credits.*

Prerequisite, 23. Principles of clothing design in wardrobe planning, selection of ready-to-wear garments and accessories. Advanced construction methods. Basic pattern used to develop skill in fitting garments.

13:107. ADVANCED TEXTILES. 3 *credits.*

Prerequisite, 3. Economic, social, and health aspects of buying and caring for the family wardrobe; selecting ready-to-wear garments.

13:115. EXPERIMENTAL COOKERY. 3 *credits.*

Techniques and methods used in experimental cooking; group and individual experiments. One hour lecture, four hours laboratory.

13:117. HISTORIC COSTUME. 3 *credits.*

Costume from ancient to modern times and its influence on present-day styles.

13:118. MEAL SERVICE AND DEMONSTRATION FOODS. 3 *credits.*

Prerequisite, 46 or permission. Problems in time, labor, money, and equipment in relation to planning, marketing, care of food, preparation and service of meals for the family group; appropriate forms of service for various types of meals, table etiquette; experience in planning and giving short demonstrations. One hour lecture, four hours laboratory.

13:119. NUTRITION IN HEALTH. 3 *credits.*

Prerequisite, 45-46 and Chemistry 55. Composition, metabolism, and physiological functions of food stuffs; nutritive requirements for individuals in different stages of development, and on various economic levels; results of dietary deficiencies. Two hours lecture, two hours laboratory.

13:120. NUTRITION IN DISEASE. 3 *credits.*

Prerequisite, 119. Application of principles of normal nutrition to diet in disease; construction of diets for specific disease conditions. Two hours lecture, two hours laboratory.

13:121. FIELD WORK. 3 *credits.*

Additional laboratory or apprentice experience in a specialized field of Home Economics. Open to Seniors in Home Economics. One hour conference, six hours practice.

13:122. HOME MANAGEMENT RESIDENCE. 3 *credits.*

Six weeks residence in the Home Management House; practical problems in management of time, energy, and money; experience in group living. Groups limited to four each for six weeks. Open to all upper college women, regardless of major field. Lab fee.

13:151. HOME ECONOMICS EDUCATION. 3 *credits.*

Organization of home economics in secondary schools. Two hours observation, two hours lecture.

13:212. INSTITUTIONAL MANAGEMENT. 3 *credits.*

Standards for good food service; food purchasing; time, labor, material, cost, equipment, and good will.

13:215. HOUSEHOLD EQUIPMENT. 3 *credits.*

Selection, use, and care of modern household equipment.

13:216. QUANTITY COOKERY. 3 *credits.*

Preparation of all types of food; care of equipment and utensils; layout of different types of food preparation and service centers. Six hours laboratory and conference.

LATIN AND GREEK

Although language and literature are by no means neglected, there is a constant archaeological emphasis in most of these courses. Use is made of slides, photographs, maps and other illustrative material to demonstrate the many aspects of ancient life and thought.

GREEK

GENERAL COLLEGE

11:21-22. ELEMENTARY GREEK. 4 *credits each semester.*

Grammar and reading.

(Note: Second-Year Greek, given on demand, may be taken as Individual Reading or Research 131-132.)

11:61. COMPARATIVE LITERATURE. 3 *credits.*
Study of major Greek writers in translation, their influence on later European literature.

11:99. CLASSICAL MYTHOLOGY. 3 *credits.*
Legends and folklore of Greece and Rome, their rebirth in later literature and art.

UPPER COLLEGE

11:113. GREEK ARCHAEOLOGY. 3 *credits.*
Daily life of Greeks, their achievements in the arts and sciences, archaeological aims and methods.

11:131-132. INDIVIDUAL READING OR RESEARCH. 1 *to* 3 *credits each semester.*
Prerequisites depend upon subject, which may be either in language or archaeology.

LATIN

GENERAL COLLEGE

16:21-22. ELEMENTARY LATIN. 4 *credits each semester.*
Grammar and reading.

16:43-44. SECOND YEAR LATIN. 3 *credits each semester.*
Prerequisite, 21-22, or two years of high school Latin. Inscriptions, Letters of Pliny, selections from Vergil, or other material suited to needs or interests of students.
(Note: Students who have completed two years of high school Latin will enroll in 43. Those who have had one year or less will enroll in 21.)

16:62. COMPARATIVE LITERATURE. 3 *credits.*
Study of major Roman writers in translation, their influence on later European literature.

UPPER COLLEGE

(Note: Some of the following courses will be given each year, according to demand. Latin 43-44 or equivalent is prerequisite for courses 103 to 111 inclusive.)

16:103. ROMAN SATIRISTS. 3 *credits.*
Horace, Persius, Juvenal, and Martial; history of satire, ancient and modern.

16:104. ROMAN DRAMATISTS. 3 *credits.*
Plautus, Terence, and Seneca; history of comedy and tragedy, stage antiquities.

16:105. ROMAN HISTORIANS. 3 *credits.*
Sallust, Livy, and Tacitus; historiography, philosophy of history.

16:106. ROMAN PHILOSOPHICAL AND RELIGIOUS WRITERS. 3 *credits.*
Lucretius, Cicero, Seneca, and Boethius; pagan syncretism and mystery religions.

16:107. MEDIAEVAL LATIN WRITERS. 3 *credits.*
St. Augustine or the other Fathers, the Goliards or other secular literature, Church Latin, letters of famous Humanists.

16:108. ROMAN LYRIC AND ELEGIAC POETS. 3 *credits.*
Catullus, Horace, Ovid, Propertius, and Tibullus.

16:111. ROMAN NOVELISTS. 3 *credits.*
Petronius and Apuleius, Milesian tale and Alexandrian romance.

16:114. ROMAN ARCHAEOLOGY. 3 *credits.*
No prerequisite. Daily life of Romans, their achievements in the arts and sciences, archaeological aims and methods.

16:131-132. INDIVIDUAL READING OR RESEARCH. 1 *to* 3 *credits each semester.*
Prerequisites depend upon subject, which may be either in language or archaeology.

MATHEMATICS

*17:18. INTERMEDIATE ALGEBRA. 3 *credits.*
Prerequisite, one year of high school algebra. Fundamentals, factoring, radicals, exponents, equations, graphing, etc. (No credit to those who have taken Algebra 17.)

*17:24. COLLEGE ALGEBRA-TRIGONOMETRY. 4 *credits.*
Algebra through quadratics, progressions, variation, binomial theorem, theory of equations, determinants, logarithms, function concept, trigonometric functions of any angle, solution of triangle problems by right triangle, sine law, cosine law method, radian measure, identities and formulas.

17:27. SPHERICAL TRIGONOMETRY. 2 *credits.*
Prerequisite, 24 (or equivalent). Right and oblique spherical triangle, applications to aviation and astronomy.

17:43. ANALYTIC GEOMETRY. 4 *credits.*
Prerequisite, 24 (or equivalent). Geometrical properties of curves and surfaces, coordinate systems.

17:45. DIFFERENTIAL CALCULUS. 4 *credits.*
Prerequisite, 43. Theory of limits, development and use of differentiation formulas, use of derivative and differential in maxima and minima, time rates, curvature, motion, approximate error, expansion of functions in series, partial differentiation.

17:46. INTEGRAL CALCULUS. 4 *credits.*
Prerequisite, 45. Formal integration, definite integral application to areas, volumes, moments of inertia, centroids, approximation methods, multiple integral.

17:57. SOCIAL STATISTICS. 3 *credits.*
Averages, measures of dispersion, graphical methods, normal curve and applications, linear correlation. Planned for students in the Social Science Division. No credit to those who have taken 40:148.

17:60. MATHEMATICS OF FINANCE. 3 *credits.*
Prerequisite, 18. Interest procedures, annuities, amortization, sinking funds, bonds, stocks, depreciation.

17:66. ASTRONOMY. 3 *credits.*
The earth as a body in space, other planets; the moon and other satellites; comets, meteorites; solar system and its motions; analysis of light; the sun and other stars, star clusters, nebulae, Milky Way, external galaxies; structure of universe.

* Students planning to take either 18 or 24 must make a satisfactory score on a screening test (administered during Orientation Week) in order to continue in course selected.

UPPER COLLEGE

17:104. HISTORY OF MATHEMATICS. 3 *credits.*

Prerequisite, 24 (or equivalent). Origin and development of mathematical ideas and processes.

17:121. MATHEMATICS OF INSURANCE. 2 *credits.*

Prerequisite, 60. Formulas for life insurance premiums, valuation procedures, construction of mortality tables.

17:130. EMPIRICAL EQUATIONS AND NOMOGRAPHY. 3 *credits.*

Prerequisite, 43. Correlation of data involving two or three variables by empirical methods, nomographic methods for evaluation of empirical formulas.

17:201. ADVANCED CALCULUS. 3 *credits.*

Prerequisite, 46. Infinite series, infinite, multiple, line and surface integrals, maxima and minima of functions of several variables, partial differentiation.

17:204. DIFFERENTIAL EQUATIONS. 3 *credits.*

Prerequisite, 46. Methods of forming and solving some important types of ordinary and partial differential equations, their applications to science.

17:206. HIGHER GEOMETRY. 3 *credits.*

Prerequisite, 45. Analytic geometry of space, topics in metric differential geometry.

17:207. HIGHER ALGEBRA. 3 *credits.*

Prerequisite, 45. Mathematical induction, partial fractions, complex number system, binomial theorem, multinomial theorem, summation of series, limits, infinitesimals, convergency and divergency of series, power series, inequalities, continued fractions and applications to indeterminate equations, theory of numbers, probability, method of least squares.

17:208. VECTOR ANALYSIS. 3 *credits.*

Prerequisite, 46. Vector algebra, differential vector calculus integration with applications to problems in geometry of two and three dimensions, differential geometry, mechanics, hydrodynamics and electrodynamics.

17:210. THEORY OF FUNCTIONS OF A COMPLEX VARIABLE. 3 *credits.*

Prerequisite, 46. Complex numbers, analytic functions, elementary functions of a complex variable, mapping and geometry of elementary functions, theory of integrals, power series, residues and poles, conformal mapping.

17:212. PARTIAL DIFFERENTIAL EQUATIONS. 3 *credits.*

Prerequisite, 204. Partial differentiation and integration, Lagrange equations, linear partial differential equations, solution in series, Bessel, Legendre and Fourier Series, Laplace transform and its application to the solution of differential equations.

17:213. NUMERICAL ANALYSIS I. 3 *credits.*

Prerequisite, 204. Interpolation, finite difference methods, numerical differentiation and integration, numerical solutions of ordinary differential equations, algebraic and transcendental equations, coding, least squares method.

17:214. NUMERICAL ANALYSIS II. 3 *credits.*

Prerequisite, 213. Least square polynomial approximation, Gaussian quadrature,

approximations of types other than polynomial, numerical solution of partial differential equations of various types, integral equations and solutions of systems of equations.

17:215. FUNCTIONS OF A REAL VARIABLE I. 3 *credits.*

Prerequisite, 201. Structure of the real number system, sets and their properties, limit theorems, properties of continuous and semi-continuous functions, derivatives of functions, Borel sets and Baire functions.

17:216. FUNCTIONS OF A REAL VARIABLE II. 3 *credits.*

Prerequisite, 215. Measure, measurable sets, measurable functions, Riemann and Lebesque integration, the Lebesque integral as a set function, planar measure and double integration.

17:217. THEORY OF NUMBERS. 3 *credits.*

Prerequisite, 46. Development of an integral domain, prime numbers, Euler's algorithm, congruence, Euler's Phi function, quadratic residues, Pell equation, Waring's problem.

17:218. LAPLACE TRANSFORMS AND SPECIAL FUNCTIONS. 3 *credits.*

Prerequisite, 204. Applied properties, convolution, differentiation and integration of transforms, transforms of unit, impulse and periodic functions, applications to ordinary and partial differential equations, Fourier series, Bessel functions, Legendre polynomials.

17:219. CALCULUS OF FINITE DIFFERENCES. 3 *credits.*

Prerequisite, 46. (204 desirable but not essential). Difference Formulas, Symbolic Operators, Finite Integration, Bernoulli and Euler Polynomials, Beta and Gamma Functions, Difference Equations with emphasis on the linear types.

17:220. MATRIX ALGEBRA. 3 *credits.*

Prerequisite, 204. Solution of Cubic and Biquadratic Equations, Matrices, Symmetric-Hermetian, Matrix Algebra, Inverse of Matrix, Rank, Linear Equations, Vector Spaces and Linear transformations, Characteristic Equation of Matrix, Bilinear, Quadratic and Hermetian Forms, Introduction to Algebra of Sets.

17:221. PROJECTIVE GEOMETRY. 3 *credits.*

Prerequisite, 46. Desargue's theorem, principle of duality, ranges and pencils, theorem of Pappus, polarity, hemogeneous and line coordinates, cross ratio, metric properties of an involution.

17:257. INTRODUCTION TO STATISTICAL ANALYSIS. 3 *credits.*

Prerequisite, 46. Representation of data, measures of central tendency and variability, probability and probability distributions, linear correlation, sampling and reliability.

MODERN LANGUAGES

GENERAL COLLEGE

8:21-22. FIRST YEAR FRENCH. 4 *credits each semester.*

Reading, speaking, writing and understanding; intensive drill in pronunciation, short stories, outside reading.

8:43-44. SECOND YEAR FRENCH. 3 *credits each semester.*

Prerequisite, 22. Grammar review, practice in reading, writing and speaking; short stories, plays, novels on intermediate level, outside reading.

10:21-22. FIRST YEAR GERMAN. 4 *credits each semester.*

Reading, speaking, writing and understanding; intensive drill in pronunciation, short stories, outside reading.

10:43-44. SECOND YEAR GERMAN. 3 *credits each semester.*

Prerequisite, 22. Grammar review, practice in reading, writing and speaking; short stories, plays, novels on intermediate level, outside reading.

14:21-22. FIRST YEAR RUSSIAN. 4 *credits each semester.*

Reading, speaking, writing and understanding; intensive drill in pronunciation, short stories, outside reading.

14:43-44. SECOND YEAR RUSSIAN. 3 *credits each semester.*

Prerequisite, 22. Grammar review; practice in reading, writing and speaking; short stories, plays, novels on intermediate level, outside reading.

23:21-22. FIRST YEAR SPANISH. 4 *credits each semester.*

Reading, speaking, writing and understanding; intensive drill in pronunciation, short stories, outside reading.

23:43-44. SECOND YEAR SPANISH. 3 *credits each semester.*

Prerequisite, 22. Grammar review; practice in reading, writing and speaking; short stories, plays, novels on intermediate level, outside reading.

UPPER COLLEGE

FRENCH

8:101-102. THIRD YEAR FRENCH: THE FRENCH NOVEL. 2 *credits each semester.*

Prerequisite, 44. Study of novel of 19th Century with reading and class discussion in French of representative works.

8:103-104. FRENCH COMPOSITION AND CONVERSATION. 2 *credits each semester.*

Prerequisite, 44. Advanced composition using French models, special attention to words and idioms, development of oral expression and conversational ability.

8:105. FRENCH PHONETICS. 1 *credit.*

Prerequisite, 44. Intensive drill in pronunciation with correction and improvement of student's accent, emphasis on articulation and intonation by use of phonograph records and individual tape recordings made by the student.

8:209-210. FROM ROMANTICISM TO SYMBOLISM. 3 *credits each semester.*

Prerequisite, 102 or 104. Poetry and Drama of the Nineteenth Century including the works of Lamartine, Hugo, Musset, Vigny, Leconte de Lisle, Gautier, Dumas père, Dumas fils, Becque, Rostand, Baudelaire, Rimbaud, Verlaine, Mallarmé.

8:213-214. THE AGE OF ENLIGHTENMENT. 3 *credits each semester.*

Prerequisite, 102 or 104. French literature of the Eighteenth Century.

8:217-218. FRENCH CLASSICISM. 3 *credits each semester.*

Prerequisite, 102 or 104. Representative works of the Seventeenth Century writers Malherbe, Théophile, Boileau, La Fontaine, Corneille, Racine, Molière, Descartes, Pascal, Bossuet, La Rochefoucauld, La Bruyère, Mme. de Sévigné and Mme. de la Fayette.

8:219-220. TWENTIETH CENTURY FRENCH LITERATURE. 3 *credits each semester.*

Prerequisite, 102 or 104. Representative plays, novels and poems by Gide, Proust, Valéry, Claudel, Bernanos, Péguy, Giraudoux, Cocteau, Anouilh, Malraux, Sartre, Camus and others.

GERMAN

10:103-104. GERMAN CONVERSATION AND COMPOSITION. 2 *credits each semester.*

Prerequisite, German 44. Advanced composition using German models, special attention to words and idioms, development of oral expression and conversational ability.

10:207-208. SCHILLER. 3 *credits each semester.*

Prerequisite, 44.

10:209-210. GOETHE. 3 *credits each semester.*

Prerequisite, 44.

10:213-214. MODERN GERMAN DRAMA. 3 *credits each semester.*

Prerequisite, 44.

10:217-218. GERMAN SHORT STORY. 3 *credits each semester.*

Prerequisite, 44.

10:219-220. TWENTIETH CENTURY GERMAN LITERATURE. 3 *credits each semester.*

Prerequisite, 44. Representative novels, dramas and poems of Hauptman, Hoffmannsthal, George Rilke, Benn, Kaiser, Werfel, Zuckmayer, Mann, Doblin, Kafka and others with emphasis on ideas and interpretations of life.

SPANISH

23:101-102. SPANISH CONVERSATION AND COMPOSITION. 2 *credits each semester.*

Prerequisite, Spanish 44, Advanced composition using Spanish models, special attention to words and idioms, development of oral expression and conversational ability.

23:106. COMMERCIAL CORRESPONDENCE IN SPANISH. 3 *credits.*

Prerequisite, 44. Translation of business letters from Spanish into English and from English into Spanish, with attention to advertising and the rubber industry.

23:207-208. MODERN SPANISH LITERATURE. 3 *credits each semester.*

Prerequisite, 44.

23:209-210. SPANISH LITERATURE OF THE GOLDEN AGE AND EIGHTEENTH CENTURY (1550-1800). 3 *credits each semester.*

Prerequisite, 44.

23:211-212. SURVEY OF SPANISH LITERATURE. 3 *credits each semester.*

Prerequisite, 44.

231-232. INDIVIDUAL READING IN FRENCH, GERMAN, OR SPANISH. 1 *to* 3 *credits each semester.*

Prerequisite, permission.

MUSIC

ORGANIZATIONS

No fee is charged for enrollment of qualified students in music organizations. Enrollment may be repeated each semester for credit as indicated. Students seeking the B.A. or B.S. degree in Buchtel College may include only four such credits in the minimum 128 credits required for graduation. Students seeking the B.S. degree in the College of Education degree in Buchtel College may include only four credits in the minimum 128 credits required for the degree.

18:1. UNIVERSITY SINGERS. 3 *hours a week.* 1 *credit.*

A mixed chorus. Membership through audition. Numerous appearances throughout the year, on campus, at various civic organizations, broadcasting stations and social groups, as well as public performances.

18:2. UNIVERSITY CHORUS. 2 *hours a week.* 1 *credit.*

Informal choral singing for mixed voices, designed for training and recreation of participants. No audition required.

18:3. UNIVERSITY SYMPHONY ORCHESTRA. 2 *hours a week.* 1 *credit.*

An organization devoted to study of orchestral literature, gives fall and spring concert and performs at special programs such as Christmas, Easter, and Commencement. Membership through audition.

18:4. UNIVERSITY BAND. 3-4 *hours a week.* 1 *credit.*

University Football Band is organized in the first semester and plays for all games. University Concert Band functions after football season. Study and performance of advanced literature. Membership in concert band through audition.

18:5. ENSEMBLE. 2 *hours per week.* 1 *credit.*

Choral ensemble, brass ensemble, string quartet or other ensemble under faculty direction. Enrollment by audition only.

APPLIED MUSIC

No credit hour fee is charged for enrollment in applied music. Fees are based on the number of private lessons per week and are listed in the section on "Fees and Expenses." Credit is given on the basis of two credits per semester for one 30-minute lesson per week and 90 minutes practice per day. Enrollment may be repeated each semester for credit. Students seeking the B.A. or B.S. degree in Buchtel College may include only eight such credits in the minimum 128 credits required for graduation.

18:21. PERCUSSION INSTRUMENTS
18:24. VOICE
18:25. PIANO
18:26. ORGAN
18:27-1. VIOLIN
18:27-2. VIOLA
18:27-3. CELLO
18:27-4. BASS
18:28-1. TRUMPET OR CORNET
18:28-2. HORN
18:28-3. TROMBONE
18:28-4. BARITONE
18:28-5. TUBA
18:29-1. FLUTE OR PICCOLO
18:29-2. OBOE
18:29-3. CLARINET
18:29-4. BASSOON
18:29-5. SAXOPHONE
18:31. HARP

GENERAL COLLEGE

18:22. THE ART OF MUSIC. 2 *credits.*

Introduction to literature of music, using recordings as illustrative material.

18:23. FUNDAMENTALS OF MUSIC. 2 *credits.*

Functional introduction to music, notation, terminology, scale construction, simple melodic dictation, sightsinging, familiarity with piano keyboard and experience in singing part songs.

18:30. STUDENT RECITAL. 1 *credit each semester.*

A weekly meeting of music students with members of the faculty, providing opportunity for experience in public performance before an audience, lecture and discussion of problems in the general area of performance, including ensemble playing and singing, conducting, accompanying, stage deportment, solo performance.

18:43. THEORY I. 3 *credits.*

Creative harmony and musicianship. Study of scales, intervals, chord formations, basic forms; creative use of these elements: sight-singing, melodic, harmonic and rhythmic dictation, ear training.

18:44. THEORY II. 3 *credits.*

Continuation of Theory I, plus two and three-part dictation. Increase of the harmonic vocabulary through chromatic harmony and modulation.

18:50. VOICE CLASS. 2 *credits.*

Prerequisite, 44. Technique employed in choral conducting, securing attacks, releases, dynamic and tempo changes, voice classification, methods of securing correct intonation, analysis of choral literature.

18:55-56. STRING CLASS. 2 *credits each semester.*

Prerequisite, 44. Playing of string instruments with emphasis on violin. Materials and teaching techniques.

18:57. WOODWIND CLASS. 2 *credits.*

Prerequisite, 44. Playing of woodwind instruments with emphasis on clarinet. Materials and teaching techniques.

18:58. BRASS AND PERCUSSION CLASS. 2 *credits.*

Prerequisite, 44. Playing of brass and percussion instruments with emphasis on cornet. Materials and teaching techniques; rudimentary drumming.

27:62. ELEMENTARY SCHOOL MUSIC LITERATURE AND APPRECIATION. 2 *credits.*

Prerequisite, 44. Materials and methods for teaching music appreciation in the grades; serious music through recordings, films and concerts.

UPPER COLLEGE

18:101-102. HISTORY OF MUSIC. 2 *credits each semester.*

Prerequisite, 44. Development of music from ancient to modern times; recordings as illustrative material.

18:103. THEORY III. 3 *credits.*

Prerequisite, 44. Study and composition of sixteenth century modal polyphony and 18th century tonal counterpoint.

18:104. THEORY IV. 3 *credits.*
Prerequisite, 103. Analysis of form, rhythm, melody, harmony, and polyphony, in music of all eras. Creative work in various styles.

18:110. CONDUCTING. 2 *credits.*
Prerequisite, 44. Technique and practice in conducting.

18:111. COMPOSITION. 2 *credits.*
Study and creative use of the major styles and idioms of musical composition of the twentieth century.

18:114. ORCHESTRATION. 2 *credits.*
Prerequisites, 55, 56, 57, 58, 103. Theory of instrumentation from small ensemble to full band and orchestra arrangements.

18:116. ADVANCED CONDUCTING. 2 *credits.*
Prerequisites, 110, 114. Baton technique, practice in reading and interpretation of scores; organization of orchestra and band, problems in programming; practice conducting University ensembles.

27:121. PRIMARY-ELEMENTARY MUSIC EDUCATION. 2 *credits.*
Prerequisite, 44. Theory and practice of presenting vocal and instrumental music in the grades; rote, observation, sight reading, part-songs, objectives and methods for grades I through VI.

27:123. SECONDARY MUSIC EDUCATION. 2 *credits.*
Prerequisite, 44. Procedures that give the Junior and Senior High School student balanced participation in applied and general music.

18:130. STUDENT RECITAL. 1 *credit each semester.*
(See 18:30 for description.)

18:201. INTRODUCTION TO MUSICOLOGY. 2 *credits.*
Prerequisites, 101, 102. Musical acoustics, psychology of music, comparative musicology, aesthetics and other topics related to music.

18:202. BIBLIOGRAPHY AND RESEARCH. 2 *credits.*
Prerequisite, 101. Survey of available printed material in the field of music and methods of use. Writing of a research paper.

PHILOSOPHY

GENERAL COLLEGE

19:55. INTRODUCTION TO PHILOSOPHY. 3 *credits.*
Nature of philosophy and philosophical methods, selected problems.

19:56. INTRODUCTION TO LOGIC. 3 *credits.*
Problems of meaning and definition; rules of correct reason, particularly the investigation of the syllogism; fallacies. A short survey of other forms of logic will also be given.

19:57. ETHICS. 3 *credits.*
Theories of value and moral obligation; inquiry into problems of moral conduct.

19:63. COMPARATIVE RELIGION. 3 *credits.*
Basic beliefs and practices of religions of the East.

19:64. HISTORY OF WESTERN RELIGION. 3 *credits.*
Development of religious ideas in the Judaeo-Christian tradition.

19:65. PHILOSOPHY OF RELIGION. 3 *credits.*
Prerequisite, 55 or 63 or 64. Basic problems of theology and religion.

UPPER COLLEGE

19:103. HISTORY OF ANCIENT PHILOSOPHY. 3 *credits.*
History of Western thought including its connections with scientific, religious, social and political circumstances from Pre-Platonic philosophers to Epicureans, Stoics and Scholastics. Open to Sophomores with approval of department head.

19:104. HISTORY OF MODERN PHILOSOPHY. 3 *credits.*
Continuation of 103. From Descartes through Spinoza to Kant and his successors. Open to Sophomores with approval of department head.

19:111. AESTHETICS. 3 *credits.*
Nature of art, beauty and aesthetic experience.

19:112. PHILOSOPHY OF ART. 3 *credits.*
Prerequisite, 111 or permission. Divisions and classifications of art, application of principles of aesthetics to the several arts.

19:129. SYMBOLIC LOGIC. 3 *credits.*
Prerequisite, 56 or permission. Introduction to mathematical logic, propositional and class logic, elementary logico-mathematical problems.

19:158. ADVANCED ETHICS. 3 *credits.*
Prerequisite, 57 or permission. Continuation of examination of ethical principles.

19:221-222. PROBLEMS OF PHILOSOPHY. 1-3 *credits each semester.*

19:224. CONTEMPORARY PHILOSOPHY. 3 *credits.*
Prerequisites, 103-104 or permission. Nineteenth and 20th century philosophy.

19:229. THEORY OF KNOWLEDGE. 3 *credits.*
Prerequisites, 103-104 or permission. Nature of knowledge; nature and criteria of truth.

19:241. PHILOSOPHY OF SCIENCE. 3 *credits.*
Prerequisite, approval by instructor, based on a background in both philosophy and science. Origin, development and influence of principles and presuppositions of science.

19:242. PROBLEMS OF SCIENCE. 3 *credits.*
Prerequisite, 241. Implications of contemporary science for philosophy; implications of contemporary philosophy for science.

PHYSICS

GENERAL COLLEGE

20:25. MECHANICS, SOUND AND HEAT. 4 *credits.*
Prerequisite, High school algebra (1 year) or 17:18. Vectors; scalars; composition

and resolution of vectors; conditions of equilibrium; Rectilinear Motion with constant acceleration; Newton's laws of motion; friction; rotary motion; work and energy; elastic properties of matter; properties of fluids; temperature; expansion; specific heat and method of mixtures; change of state, gas laws; transference of heat; heat and work; wave motion; properties of sound; vibrating strings and air columns; acoustics. Three recitations and one laboratory period per week. Not open to students who have credit in 20:51.

20:26. ELECTRICITY, LIGHT AND MODERN PHYSICS. 4 *credits.*

Prerequisite, 25. Electric charges; Coulomb's law; electric field and potential; Ohm's law for circuits; resistance laws; Kirchhoff's laws; magnetic effect of an electric current; electrolysis; heating effect; electric energy and power; electric instruments; electromagnetic induction; conduction through gases; cathode rays; X-rays; thermionic effect; photoelectric effect; radioactivity; velocity of light; photometry; images and their formation in mirrors and lenses; prisms; spectra; interference; diffraction; and polarization. Three recitations and one laboratory period per week. Not open to students who have credit in 20:52.

20:31. MECHANICS, HEAT AND SOUND. 5 *credits each semester.*

Corequisite, 17:45. For Chemistry, Mathematics, Physics and Engineering majors. Four lectures and/or recitations and one laboratory per week. Vectors and scalars; composition and resolution of vectors; equilibrium; rectilinear motion; Newton's laws; friction, rotary motion; moments of inertia; work and energy; properties of elasticity; simple harmonic motion; fluids and gases; surface tension; temperature; expansion; specific heat; change of state; method of mixtures; gas laws; transference of heat; elements of thermodynamics; wave motion; properties of sound; vibrating strings and air columns; Doppler effect; acoustics.

20:32. ELECTRICITY, LIGHT AND MODERN PHYSICS. 5 *credits.*

Prerequisite, 31. Corequisite, 17:46. Four lectures and/or recitations and one laboratory per week. Velocity of light; photometry; images and their formation in mirrors and lenses; prisms; spectra; optical instruments; interference; diffraction; polarization; electric charges; Coulomb's law; magnetic effect; electric field and electric potential; Ohm's law; Kirchhoff's law; heating effect; electrolysis; energy and power; electrical instruments; electromagnetic induction; motors and generators; capacitance; inductance; A.C. circuits; conduction through gases; cathode rays; X-rays; thermionic effect; photoelectric effect; radioactivity.

UPPER COLLEGE

20:150. MODERN PHYSICS. 2 *credits.*

Prerequisites, 32, 17:46. The atom and its nucleus, its use as a source of energy. Not open to Physics majors. Primarily for Engineers.

20:211-212. MECHANICS. 3 *credits each semester.*

Prerequisite, 32, corequisite, 17:204. Introduction to vector analysis, planar statics and kinematics, plane motion of a particle and of a rigid body, plane impulsive motion, moving frames of reference, spatial motion of a particle and of a rigid body, Lagrange's equations, the special theory of relativity.

20:213. ELECTRICITY AND MAGNETISM. 3 *credits.*

Prerequisite, 32, corequisite, 17:204. Coulomb's law; Gauss's law; dielectrics; Poisson

and LaPlace equations; electrical images; magnetostatics; Kirchhoff's laws, chemical and thermal electromotive forces; Ampere's laws.

20:214. ELECTRICITY AND MAGNETISM. 3 *credits.*

Prerequisite, 213. Forces on moving charges, electromagnetic induction, alternating circuits, coupled circuits, filters, Maxwell's equations and electromagnetic waves.

20:215. ELECTRICAL MEASUREMENTS. 2 *credits.*

Prerequisites, 32, 17:204 or permission. Direct currents and their application, measurement of resistance and charge, bridges, measurement of E.M.F., power, measurement of magnetic quantities, alternating currents and their measurement, measurement of capacitance, self inductance, mutual inductance, frequency, measurement of temperature by electrical methods. Laboratory.

20:216. ELECTRONICS. 3 *credits.*

Prerequisite, 32, corequisite, 17:204 or permission. Thermionic diodes, triodes, triode amplifiers, high output amplifier, tetrodes and pentodes, feed back circuits, electron emission, gas in electron tubes, gas type tubes with grids, resonant circuit amplifiers and oscillators, special functions of electron tubes, modulation process, ultra high frequency electronics, electronic instruments. Laboratory.

20:217. MODERN PHYSICS. 3 *credits.*

Prerequisites, 32, 17:204. Properties of the electron, radioactive radiations and their detection, positive rays, nuclear atom, Rutherford scattering, X-rays, introduction to quantum theory of radiation, special theory of relativity, atomic spectra, the nucleus and its properties, isotopes, atomic masses. Natural radioactivity, nuclear transmutations.

20:218. MODERN PHYSICS. 3 *credits.*

Prerequisite, 217. Interaction of alpha, beta and gamma rays with matter, nuclear reactions and cross sections, introductory quantum mechanics, molecules, binding and energy bands in solids, electrical, thermal and magnetic properties of solids, imperfections in solids, semi conductors, physical electronics.

20:219. MODERN PHYSICS LABORATORY. 1 *credit.*

Prerequisite, 217. Selected experiments in atomic, nuclear and solid state physics.

20:221-222. COLLOQUIUM. 1 *credit each semester.*

20:224. OPTICS. 4 *credits.*

Prerequisites, 32 and 17:46. Three lectures and one laboratory per week. Reflection from mirrors; refraction; prisms, thin lenses, thick lenses; waves and their propogation; diffraction; interference; polarization; spectra; emission of light from the atom; velocity of light; photometry.

20:225. KINETIC THEORY AND THERMODYNAMICS. 4 *credits.*

Prerequisites, 32 and 17:46. Three lectures and one laboratory per week. Kinetic theory of gases; temperature; thermodynamic systems; work; ideal gases; real gases; laws of thermodynamics; entropy, reversibility and irreversibility; Carnot cycle; Kelvin temperature scale; change of phase.

20:231. REACTOR PHYSICS. 3 *credits.*

Prerequisite, 217. Nuclear physics, nuclear reactions, diffusion of neutrons, slowing down of neutrons, diffusion in the general case, reactor statics.

20:235. RADIATION SAFETY. 1 *credit.*

Prerequisite, 150 or 217. Types of radiation, units for measurement of radiation, biological effects of radiation, detection instruments and their calibration, calculation of radiation level, permissible radiation levels, shielding, safety rules and their importance.

GRADUATE COURSES

20:314. X-RAYS. 3 *credits.*

Prerequisite, 217. Theory and applications of X-rays to physical and chemical problems; use of X-ray camera and interpretation of X-ray photographs.

20:315. X-RAY LABORATORY. 1 *credit.*

Pre- or corequisite, 314. Laboratory practice in X-ray work.

20:321. THEORETICAL MECHANICS. 4 *credits.*

Prerequisite, 212. Inertial reference frames and Newtonian time scales, non inertial frames, generalized coordinates, Lagrange's equations, theory of small vibrations, normal coordinates, Hamilton equations, principle of least action, Hamilton-Jacobi method, application to atomic systems and origin of quantum mechanics, introduction to tensor analysis.

20:322. THEORETICAL ELECTRICITY AND MAGNETISM. 4 *credits.*

Prerequisites, 214, 321 or permission. Maxwell's equations, space-time symmetry of the field equations, transformation of the field vectors to moving systems, stress and strain in elastic media, electromagnetic forces on charges and currents, electrostatic energy, magnetostatic energy, Poynting's theorem, forces on dielectrics in an electrostatic field, forces in the magnetostatic field, forces in the electromagnetic field, general properties of an electrostatic field, calculations of an electrostatic field from charge distribution, expansion of the potential in spherical harmonics, dielectric polarization, general properties of the magnetostatic field, calculation of the field of a current distribution.

20:324. INTRODUCTION TO QUANTUM MECHANICS. 3 *credits.*

Prerequisite, 321. The physical basis of quantum mechanics, the Schroedinger wave equation, matrix formulation of quantum mechanics, motion in a centrally symmetric field, perturbation theory, skin and its quantum mechanical formulation, collision theory, elementary applications (hydrogen atom, harmonic oscillator), probability currents, linear operators and matrices.

20:332. REACTOR PHYSICS. 3 *credits.*

Prerequisite, 231. Reactor kinetics; reactor control; shielding; reactor accidents and excursions; transport theory.

20:333. REACTOR LABORATORY. 2 *credits.*

Prerequisite, 217. Selected experiments using reactor and subcritical assembly.

20:335. ADVANCED NUCLEAR PHYSICS. 3 *credits.*

Prerequisites, 217, 324. Quantum mechanics applied to the nucleus, scattering, interaction of radiation with the nucleus, nuclear reactions; high energy accelerators, energy levels of nuclei.

20:336. SOLID STATE PHYSICS. 3 *credits.*

Prerequisites, 218, 324. Classification of solid states, classical theory of ionic crystals, specific heats of simple solids, free electron theory of metals and conductors, quantum

mechanical theory, many body problem, molecular binding, band approximation, approximation methods, cohesive energy, work function and surface barrier, excited electronic states of solids, electronic structure of the different types of the five solid types, dynamics of nuclear motion, theory of conductivity, magnetic properties of solids, optical properties of solids.

20:337-338. PHYSICS OF HIGH POLYMERS. 3 *credits each semester.*

Prerequisite, 17:204 or permission. Molecular size and shape, kinetic theory of elasticity, self diffusion, melt viscosity, glass transition, temperature and diluent dependence of friction factor, creep and stress relaxation measurements, oscillatory measurements, dynamic response of molecule and network, relaxation and retardation time spectra, models, hysteresis, network defects, action of fillers, tensile strength, crystallization, fibers, dielectric and nuclear magnetic properties of polymers in bulk and in solution.

20:340. SPECIAL TOPICS IN PHYSICS. 1-3 *credits.*

Prerequisite, permission. To enable students, who need information in special areas in which no formal course is offered, to acquire knowledge in these areas.

20:341. STATISTICAL THERMODYNAMICS. 3 *credits.*

Prerequisites, 225, 17:204. Classical statistics of Boltzmann, entropy and probability, Liouville theorem, Maxwell-Boltzmann energy distribution, Law of equipartition and specific heats, Debye theory of specific heats, theory of thermal radiation, Bose-Einstein and Fermi-Dirac statistics—Applications.

20:351. ATOMIC SPECTRA. 3 *credits.*

Prerequisite, 217. Atomic spectra and their relation to structure of matter, line spectra and development of theory, spectra, fine structure of lines.

20:352. MOLECULAR SPECTRA. 3 *credits.*

Prerequisite, 351. Molecular bands and development of theory, rotational, vibrational and electronic bands, Raman effect, Isotopic effect, intensity of bands, methods of determining the molecular constants from wave number measurements.

20:360. MASTER'S RESEARCH. 1-6 *credits.*

Prerequisite, permission. Properly qualified candidates for a Master's degree may obtain up to six credits for supervised original research depending on the availability of staff and facilities. Up to three credits may be obtained by a student for writing a literature thesis covering some field of Physics selected in consultation with his adviser. Reports of the above work will be the student's thesis.

POLITICAL SCIENCE

GENERAL COLLEGE

21:41. AMERICAN NATIONAL GOVERNMENT. 3 *credits.*

Constitution, its distribution of powers; the President, Congress, courts and great administrative organization in its contacts with citizen.

21:42. AMERICAN STATE AND LOCAL GOVERNMENT. 3 *credits.*

State and local units of government, citizen participation; Akron, Summit County and Ohio history and government.

21:43. COMPARATIVE GOVERNMENT. 3 *credits.*
Government of England, other governmental systems compared with England and with each other.

21:44. AMERICAN DIPLOMACY. 3 *credits.*
Machinery by which United States conducts its foreign relations; policies adopted toward major areas of world.

UPPER COLLEGE

21:103. POLITICAL PARTIES. 3 *credits.*
Party development, organization and functions in United States; individual and group participation in political process.

21:108. PARLIAMENTARY LAW AND LEGISLATIVE PROCEDURE. 3 *credits.*
Drill in parliamentary law; modern legislative procedures and problems. Equal time for each part.

21:109. GOVERNMENT AND SOCIAL WELFARE. 3 *credits.*
The part government has come to play in social welfare field.

21:110. GOVERNMENT AND BUSINESS. 3 *credits.*
Relationship of government with business.

21:111. INTERNATIONAL ORGANIZATION. 3 *credits.*
Political organization among nations; United Nations.

21:117-118. POLITICAL THEORY. 3 *credits each semester.*
First semester, political speculation of Classical Greeks, Romans; English, American and French Revolutions. Second semester, post-revolutionary period to present time; American political speculation.

21:201. MUNICIPAL GOVERNMENT. 3 *credits.*
Development, composition, governmental organization of American city life.

21:202. MUNICIPAL ADMINISTRATION. 3 *credits.*
Organization of city government for performing services to public; police protection, supervised playgrounds, parks, etc.

21:205. CONSTITUTIONAL LAW. 3 *credits.*
The Constitution and American Government in terms of Supreme Court decisions.

21:206. MUNICIPAL CORPORATIONS. 3 *credits.*
American city from the legal point of view.

21:207. MUNICIPAL FINANCE. 2 *credits.*
Municipal budgets, purchasing of materials, sources of municipal revenue and problems of real estate tax.

21:211. INTERNATIONAL RELATIONS. 3 *credits.*
Political relations among nations, international political scene.

21:212. INTERNATIONAL LAW. 3 *credits.*
Established rules, practices and conventions governing the relations of the several national states and their citizens with one another.

21:213-214. PUBLIC ADMINISTRATION. 3 *credits each semester.*

Administrative organization, personnel recruitment, sound budget organization and procedure, public reporting, public relations.

21:217-218. FIELD WORK. 3 *credits each semester.*

Open to Senior majors with six hours of Public Administration.

21:220. ADMINISTRATIVE LAW. 3 *credits.*

Rights of a citizen before government agencies, rights and duties of public official, customary procedures of government agencies, legal recourse of both agency and citizen in accomplishing their objectives.

21:243. COMMUNIST GOVERNMENT AND POLITICS. 3 *credits.*

Communist theory and practice in the governments of the Soviet Union, China and the communist satellites.

21:298. SEMINAR IN POLITICAL SCIENCE. 2 *credits.*

Required for Senior majors planning graduate work.

GRADUATE COURSES

21:301. READINGS IN WORLD AFFAIRS. 1 *to* 3 *credits.*

21:302. READINGS IN PUBLIC ADMINISTRATION. 1 *to* 3 *credits.*

21:303. READINGS IN POLITICS AND PUBLIC AFFAIRS. 1 *to* 3 *credits.*

(Not more than six credits may be earned in reading courses.)

21:311. RESEARCH AND THESIS IN POLITICAL SCIENCE. 1 *to* 3 *credits.*

PSYCHOLOGY

GENERAL COLLEGE

30:21. ELEMENTARY PSYCHOLOGY. 3 *credits.*

Introduction to psychology with emphasis on basic facts and principles in the behavior of the typical human adult. Open only to students in the Pre-Clinical Nursing Program.

30:41. GENERAL PSYCHOLOGY. 3 *credits.*

Basic facts and principles in the scientific study of behavior.

30:43. APPLIED PSYCHOLOGY. 3 *credits.*

Prerequisite, 41. Applications of psychology to business and industry, education, clinical problems and law.

30:47. INTRODUCTION TO EXPERIMENTAL PSYCHOLOGY. 3 *credits.*

Prerequisite, 41. Laboratory procedures and quantitative methods in psychology. Lectures, reference reading and experiments, including statistical treatment of data obtained. Two hours of lecture and two hours of laboratory work per week.

UPPER COLLEGE

30:107. PSYCHOLOGY OF CHILDHOOD AND ADOLESCENCE. 3 *credits.*

Prerequisite, 41. Development of the individual from birth through the adolescent period; emphasis on needs and problems of typical children and adolescents; preparation of case histories.

30:110. EXPERIMENTAL PSYCHOLOGY. 3 *credits.*

Prerequisites, 47 and a course in Statistics or permission. Scientific methods and tools of modern experimental psychology; group and individual laboratory experiments in sensory processes, attention and perception and learning. One lecture and two 2-hour laboratory periods a week.

30:115. SOCIAL PSYCHOLOGY. 3 *credits.*

Prerequisite, 41. Responses of the individual in relation to group situations and social influences of modern life.

30:116. INDUSTRIAL PSYCHOLOGY. 3 *credits.*

Prerequisite, 41. Approaches to the improvement of industrial selection, promotion, classification, training and performance evaluation.

30:204. PSYCHOLOGY OF EXCEPTIONAL CHILDREN AND ADOLESCENTS. 3 *credits.*

Prerequisite, 107. Atypical or exceptional conditions in the development of children and adolescents; diagnostic and treatment procedures in the clinical approach to helping these individuals in their adjustment.

30:205. PHYSIOLOGICAL PSYCHOLOGY. 3 *credits.*

Prerequisite, 47. Behavior in terms of its biological and neurological basis. Emphasis on sensation and perception, vision, audition, autonomic functions, cortical dynamics and integrated behavior, motivation, emotional behavior and psychosomatic problems. Readings in current literature and reviews. Biology 91 desirable as background.

30:206. NORMAL AND ABNORMAL PERSONALITY. 3 *credits.*

Prerequisite, six credits in psychology. The nature, development and organization of normal personality; range of adjustment mechanisms including normal, minor maladjustment area, psychoneuroses and extreme psychoses.

30:207. PSYCHOLOGICAL TESTS AND MEASUREMENTS. 3 *credits.*

Prerequisites, 41 and a statistics course or permission. The nature, proper use and construction of tests and measurements in industry, government and education. Aptitude and achievement tests, rating scales, attitude and opinion analysis.

30:208. TECHNIQUES IN GUIDANCE AND COUNSELING. 2 *credits.*

Prerequisite, 207. The use of tests, interviews and personal history data in vocational and academic counseling and guidance.

30:209. HUMAN UTILIZATION. 3 *credits.*

Prerequisite, 41. Effective use of human skills in the working situation; environmental arrangements and techniques for increasing efficiency; special arrangements for marginal, older, accident prone and handicapped employees.

30:210. COMPARATIVE PSYCHOLOGY. 3 *credits.*

Prerequisite, 47. Use of animals in scientific study of behavior; understanding the animal and discovery of principles leading to understanding of human behavior.

30:211. PSYCHOLOGICAL FACTORS IN MARITAL AND HOME ADJUSTMENT. 2 *credits.*

Prerequisite, Senior or adult status. Psychology of sex adjustment in adolescence, adulthood and marriage; factors which are important to successful marriage and parenthood.

30:212. PSYCHOLOGY OF LEARNING. 3 *credits.*

Prerequisite, 47. Problems of conditioning and learning; acquisition of individual responses; reinforcement, drive, frequency, transfer, retention, problem solving.

30:215. METHODOLOGY IN PSYCHOLOGY. 3 *credits.*

Prerequisite, Psychology 47 and a course in statistics. Typical research problems in psychology and techniques of solution via scientific methodology.

30:216. SEMINAR AND RESEARCH PROBLEM. 2 *credits.*

Prerequisite, 215. Reports by students on reading and experimental research; individual experimental problem; review and discussion of current literature.

GRADUATE COURSES

30:300. ADVANCED PSYCHOLOGICAL STATISTICS. 3 *credits.*

Prerequisite, 17:57. Analysis of variance and covariance, multiple correlation and regression, discriminant function, factor analysis, nonparametric statistics.

30:301. ADVANCED GENERAL PSYCHOLOGY. 2 *credits.*

Prerequisite, nine credits in psychology including 300. Major findings in the study of the normal human adult, physiological background and experimental results.

30:304. ADVANCED DEVELOPMENTAL PSYCHOLOGY. 3 *credits.*

Prerequisite, nine credits of psychology. Influence of developmental stages upon individual and group behavior throughout the life span with implications for educational, clinical and industrial counseling.

30:306. INDIVIDUAL INTELLIGENCE TESTING I: STANFORD-BINET. 2 *credits.*

Prerequisite, 207 and permission. Lectures and practice in the administration and scoring of the Stanford-Binet.

30:307. INDIVIDUAL INTELLIGENCE TESTING II: WECHSLER-BELLEVUE. 2 *credits.*

Prerequisite, 207 and permission. Lectures and practice in the administration and scoring of the Wechsler-Bellevue.

30:309. THEORIES OF PERSONALITY. 2 *credits.*

Prerequisite, nine credits of psychology, including 206. Major personality theories and their respective contributions to the understanding of personality dynamics and organization.

30:310. THEORIES OF PSYCHOTHERAPY. 2 *credits.*

Prerequisite, 309 or permission. Contemporary theories of psychotherapy; client centered therapy; Freudian, Rankian, Adlerian and Jungian systems.

30:311. THE PSYCHOLOGY OF INDIVIDUAL DIFFERENCES. 3 *credits.*

Prerequisite, nine credits of psychology. Significance, nature and role of inter- and intra-individual differences; applications to educational, industrial and clinical situations; group differences and their measurement.

30:313. APPLIED EXPERIMENTAL PSYCHOLOGY. 3 *credits.*

Prerequisities, 205, 300 or permission. Contributions of psychology to the design of equipment and adaptation of work environment for optimum human use.

30:314. ADVANCED INDUSTRIAL PSYCHOLOGY. 3 *credits.*
Prerequisite, 116 or permission. Selection and training methods, conditions of work, performance rating, supervision, safety, attitude studies, motivation, personal adjustment and labor-management relations.

30:315. ADVANCED TESTS AND MEASUREMENTS. 3 *credits.*
Prerequisite, 300. Basic variables, qualifying concepts, current trends in measurement; validation concepts; cross-validation; item analysis statistics.

30:317. HISTORY AND SYSTEMS OF PSYCHOLOGY. 2 *credits.*
Methods and concepts of psychology and contemporary points of view.

30:318. GRADUATE SEMINAR IN PSYCHOLOGY. 3 *credits.*
Prerequisite, 20 graduate credits of psychology. Special topics in the major areas.

30:320. PRACTICUM IN CLINICAL AND COUNSELING PSYCHOLOGY. 3 *credits.*
Prerequisites, 20 hours of psychology including 206, 207, 309 and 310 and permission (306 and 307 are recommended). One class meeting per week and 300 hours of practice in field institutions which includes the State Department of Education requirement for certification of school psychologists. Diagnostic techniques, remedial methods and personal counseling.

30:400. THESIS SEMINAR. 2 *credits.*
Prerequisite, permission. Review and discussion of contemporary research; preparation for independent research and thesis preparation.

30:402. PSYCHOLOGY RESEARCH PROBLEM. 2 *to* 4 *credits.*
Prerequisite, 400. Research analysis of data and preparation of thesis for the Master's Degree.

SOCIOLOGY

GENERAL COLLEGE

22:23. INTRODUCTION TO SOCIOLOGY. 3 *credits.*
For Nurses. Social groups, culture and personality.

22:41. GENERAL SOCIOLOGY. 3 *credits.*
Origin, development, structure and function of social groups.

22:42. SOCIAL ATTITUDES. 3 *credits.*
Development of a person and personality as a function of social group.

22:43. MODERN SOCIAL PROBLEMS. 3 *credits.*
Social problems from sociological point of view.

22:45. SOCIAL ANTHROPOLOGY. 3 *credits.*
Fundamental concepts of our cultural heritage.

UPPER COLLEGE

22:101-102. METHODS OF SOCIAL RESEARCH. 3 *credits each semester.*
A combination lecture and laboratory course. Methods, including statistics and problems of sociological research. Required of all Sociology Majors.

22:104. LEADERSHIP. 2 *credits.*
Leaders and leadership, problems, techniques and processes of the same.

22:111-112. FIELD WORK. 3 *credits each semester.* (150 *hours of work at a recognized agency or institution.)*
Primarily for students interested in welfare or group work. Seniors only. Two semesters recommended.

22:113. URBAN-RURAL SOCIOLOGY. 2 *credits.*
Comparison and analysis of urban and rural life.

22:114. CRIMINOLOGY. 3 *credits.*
Background for delinquency and penology. Cause, treatment and prevention of crime.

22:116. THE AMERICAN INDIAN. 3 *credits.*
His origin, distribution, culture, changing ways and influence on the white man.

22:117. CHILD WELFARE. 3 *credits.*
Relation and responsibility of state and community to child.

22:202. COLLECTIVE BEHAVIOR. 3 *credits.*
Group behavior in early stages of social movements; crowds, mobs, crazes, booms, panics, revolutions, etc.

22:204. THE FAMILY. 3 *credits.*
Family as a group of interacting personalities.

22:206. COMMUNITY ORGANIZATION. 3 *credits.*
Structure and function of the community as a social system.

22:210. POPULATION MOVEMENTS. 3 *credits.*
Present movements of population: migration, refugee, urban and rural, with their sociological implications.

22:213. THE JUVENILE DELINQUENT. 3 *credits.*
The delinquent as a person, causes, treatment and prevention.

22:215. SOCIAL THEORY. 3 *credits.*
Theoretical basis of modern social thinking, institutions and organizations.

22:216. SOCIAL INSTITUTIONS. 3 *credits.*
Origin of social institutions, organizations and systems of social thought.

22:217. RACE RELATIONS. 3 *credits.*
Minority groups, sociological interpretation of relationships between dominant and minority groups.

22:219-220. COMMUNITY SOCIAL STUDIES. 3 *credits each semester.*
Community problems, research with reference to Census Tract Maps.

22:221. SOCIAL CONTROL. 3 *credits.*
Foundations, means and techniques for controlling social behavior.

SPEECH

GENERAL COLLEGE

24:41. PUBLIC SPEAKING. 3 *credits.*
Training in types of public address; performance and individual criticism.

24:43-44. INTERCOLLEGIATE DEBATE. 1 *or* 2 *credits each semester.*
Argument in its application to a particular question debated among universities and colleges each year.

24:45-46. ORAL ARGUMENT. 2 *credits each semester.*
Theory of argument, analysis of logical processes in speech situations, practice in discussion.

24:47-48. BUSINESS AND PROFESSIONAL SPEAKING. 2 *credits each semester.*
Application of speech skills in business and professional life.

24:51. READING ALOUD. 3 *credits.*
Oral interpretation from the printed page.

24:61. INTRODUCTION TO THEATRE. 3 *credits.*
Theatre arts and the variety of crafts involved in dramatic production.

24:71. VOICE AND ARTICULATION. 2 *credits.*
Study of vocal and articulatory mechanisms.

24:76. FUNDAMENTALS OF SPEECH. 3 *credits.*
Introduction to the speech and hearing mechanisms and to the speech problems of the speech handicapped school child.

24:81. RADIO SPEAKING. 3 *credits.*
Prerequisite, 51. Radio and television speaking, microphone and camera techniques, announcing.

UPPER COLLEGE

24:104. PHONETICS. 2 *credits.*
Phonetic transcription using International Phonetic Alphabet.

24:114. TEACHING OF SPEECH. 2 *credits.*
Methods to improve speech of elementary and secondary school children.

24:141. PERSUASION. 3 *credits.*
Prerequisite, 41. Advanced performance course in Public Address.

24:144. PUBLIC DISCUSSION AND GROUP PROCEDURES. 3 *credits.*
Prerequisite, permission of instructor. Techniques of discussion in terms of skills of the effective discussion leader and participant.

24:155. ADVANCED INTERPRETATION. 3 *credits.*
Prerequisite, 51. Reading aloud, program building in reference to specific audiences and types of literature.

24:161. PLAY DIRECTING. 3 *credits.*
Prerequisite, permission of Head of Department. A practical course in the principles and techniques of presenting various types of theatrical material to an audience.

24:162. PLAY PRODUCTION. 3 *credits.*

Play analysis in terms of production: stage design, scenery construction, stage lighting, make-up, theatre management.

24:163-164. ACTING. 3 *credits each semester.*

Prerequisite, permission of Head of Department. Actor's approach to theatre; establishment of his character, his inner resources, stage practices, external acting techniques.

24:167. HISTORY OF THE THEATRE. 3 *credits.*

A survey of significant theatrical eras from ancient Greece to the present: evolution of physical stage, scene design, styles in acting and production, stage lighting, special effects.

24:171. LIP READING. 3 *credits.*

History and methods of lip reading.

24:181. RADIO PRODUCTION. 3 *credits.*

Prerequisites, 51 and 81. Technique and performance of radio and television broadcasting; practice in dramatic production for radio and television.

24:244. PROBLEMS IN GROUP COMMUNICATION. 3 *credits.*

Prerequisite, 41. Current theories of group communication; group dynamics; problems in language; projects; seminar reports.

24:262. EDUCATIONAL THEATRE ORGANIZATION AND MANAGEMENT. 2 *credits.*

The business end of educational theatre; backstage organization on secondary school and university levels.

24:265. SPECIAL PROJECTS IN THEATRE. 2-4 *credits (may be repeated for total of* 6 *credits).*

Prerequisite, permission of the instructor. Individual or group projects, relative to a University Theatre production, in any of the following areas: costume, lighting, scene design and construction, acting, directing, make-up, Children's Theatre, or Theatre Management.

24:267. CONTEMPORARY THEATRE STYLES. 3 *credits.*

The emergence of Modern Contemporary Theatre; selected examples of 19th and 20th Century plays; writing, scene design, and production practices; the departures from Realism.

24:270. SPEECH THERAPY FOR CLASSROOM TEACHERS. 3 *credits.*

A study of the types and nature of speech defects frequently found in the classroom and the rôle of the teacher in correcting these defects. Available for graduate credit only with approval of Head of Department.

24:271-272. SPEECH PATHOLOGY AND SPEECH THERAPY. 3 *credits each semester.*

Prerequisite to 24:271 is 24:76.

Prerequisite to 24:272 is 24:271.

Introduction to the etiology, diagnosis and therapy of speech and language disorders.

24:273-274. CLINICAL PRACTICE IN SPEECH THERAPY. 1-2 *credits each semester.*

Prerequisite, permission of instructor. Introduction to Speech Therapy procedures. Observation of and work with clinic cases.

24:277. HEARING CONSERVATION AND AUDIOMETRY. 3 *credits.*

History of Hearing Conservation and testing. The administering of audiometric tests.

24:287. ADVANCED RADIO WRITING AND PRODUCTION. 3 *credits.*

Prerequisite, 81 or 181. Practical experience in writing and producing radio and television programs.

24:290. SPEECH CRITICISM. 3 *credits.*

Study of the goals and philosophy of rhetorical evaluation. Available for graduate credit only with approval of Head of Department.

24:297. SPEECH SEMINAR. 2 *credits.*

Special project relating to a selected area of speech.

GRADUATE COURSES

24:361. ADVANCED TECHNICAL THEATRE. 3 *credits.*

Prerequisite, permission of instructor. Detailed problems in mounting plays on secondary school or university stages.

24:365. PLAYWRITING. 3 *credits.*

Prerequisite, permission of instructor. Principles of dramatic construction through (a) an analysis of the playwright's art and (b) the writing of a short play by the individual student.

24:366. HISTORIC COSTUME FOR THE STAGE. 3 *credits.*

Costuming period plays; a history of stage costume; costume design.

24:367-368. STUDIES IN DRAMATIC PRACTICE. 3 *credits.*

Prerequisite, 24:367. 367: Detailed and selective study of theatre from Greece through the Elizabethan period: plays and playwrights, the physical stage, scenic devices, acting styles, status of theatre. 368: A detailed and selective study of theatre from the Restoration to the 20th century: play and playwrights, the physical stage, scenic devices, acting styles, status of theatre.

24:371-372. ADVANCED SPEECH PATHOLOGY AND SPEECH THERAPY. 3 *credits each semester.*

Prerequisites, 24:271 & 272. Background and current thinking in relation to the etiology, diagnosis and therapy of speech and language disorders.

24:373. VOICE PATHOLOGY. 3 *credits each semester.*

Prerequisites, 24:271 & 272. Background and current thinking in relation to etiology, diagnosis and therapy for various disorders of voice.

24:374. INTERNSHIP IN SPEECH THERAPY. 2-4 *credits (may be repeated for total of* 6 *credits).*

Prerequisite, permission of instructor. Practice in the University of Akron Speech and Hearing Clinic and Community Agencies.

24:390. CRITICAL STUDIES IN RHETORICAL THEORY. 2 *credits.*

Principles of speechmaking from the time of Plato and Aristotle to the present.

24:391-392. CRITICAL STUDIES IN AMERICAN PUBLIC ADDRESS. 2 *credits each semester.*

Rhetorical criticism of speeches by Webster, Clay, Calhoun and through Contemporary American speakers.

24:393. CRITICAL STUDIES IN BRITISH PUBLIC ADDRESS. 2 *credits.*
Rhetorical criticism of speeches by Fox, Pitt, Burke and other British speakers to 1865.

24:397. RESEARCH. 3 *credits.*

24:399. THESIS. 3 *credits.*

AN UPPER COLLEGE:

The College of Engineering

R. D. LANDON, C.E., M.S., *Dean;* E. K. HAMLEN, M.E., *Coordinator*

The College of Engineering requires five years of undergraduate study for a Bachelor's degree, instead of the conventional four years as required in other Upper Colleges.

The "heart" of the Engineering College is its cooperative course which was begun in 1914, the same year that the college itself was established. This plan of alternating work with study begins in a student's third year when he is formally admitted to the College of Engineering, following his two years of fundamental training in the General College.

A graduate program was established in 1957 for students who study part-time in Evening College. A Master of Science in Engineering degree is awarded.

Complete curriculums for Civil, Electrical and Mechanical engineers are offered, as well as pre-engineering courses in the fields of Aeronautical, Chemical and Metallurgical Engineering.

Although the College of Engineering is one emphasizing specific professional preparation, it nevertheless operates in accordance with the University policy of affording each student a grasp of the broad cultural phases of modern times. A graduate is expected to apply his technical knowledge with the constant awareness that his goal is to serve humanity. In order that these engineers serve humanity best, the University strives to educate them in the areas of art as well as science.

The three principal areas of this college are as follows:

I. CIVIL ENGINEERING—with 4 divisions:
   a) structural engineering (designing and building bridges, dams, tunnels, etc.)
   b) transportation engineering (designing railroads, highways, airports, harbor facilities, etc.)
   c) hydraulic engineering (controlling and conserving water supplies; planning irrigation, draining, navigation, etc.)
   d) sanitary engineering (improving cleanliness and healthfulness of industrial and residential areas, etc.)

II. ELECTRICAL ENGINEERING courses prepare men for careers in the production, distribution and use of electrical energy. A graduate in this area may develop

electrical equipment ranging from light bulbs to generators or he may design or install communication systems. Electrical engineers are usually employed by utility companies or manufacturers of electrical equipment. Other employment opportunities are to be found in large industrial firms, in electrical contracting firms or in individual consultant offices.

III. MECHANICAL ENGINEERING courses prepare men to design machinery, create improved manufacturing and production methods and supervise use of machinery in the heat-power field. Mechanical engineers use their knowledge in industries as widely diverse as the textile and toy industries.

Mechanical engineers are usually employed by private industries, with aims of lessening production costs, improving quality of the product and maintaining pleasant working conditions for the employees. (e.g. air conditioning.)

A recent area for mechanical engineers is design of equipment for jet propulsion.

THE COOPERATIVE PLAN

The cooperative plan provides for a coordinated sequence of alternate periods of classroom instruction and industrial employment.

During the cooperative phase of the five-year course, the student body is divided into two equal groups, Sections A and B. While those in Section A attend classes for the first period, the students in Section B are employed in industry. During the second period those in Section A report for industrial employment and the students in Section B attend classes.

This schedule of alternation continues throughout the calendar year. By pairing a student in Section A with an alternate in Section B and by deducting vacations from school periods, employers are assured that one of each pair will be on duty in industry every working day of the year.

The cooperative plan provides simultaneously for the development of fundamental principles in the classroom and for their application in industrial practice. The cooperative student has the opportunity to find the type of work and industrial organization in which he can best apply his individual ability. He gains an appreciation of the problems of labor and management by first-hand experience. He develops mature judgment by coping with the everyday problems of the industrial world. The employer of cooperative students has the opportunity to select and train students whose abilities and aptitudes can be adapted to the needs of his technical staff requirements.

At The University of Akron, engineering students attend classes full time for two semesters during the first year and for two and one-half semesters during the second year. At the beginning of the third year, students alternate classroom instruction with industrial employment in periods of one-half semester. The cooperative phase extends through the third, fourth and first-half of the fifth years. At that time, all students return to classes for a final semester before graduation.

While students are at work, they are required to obey all rules and regulations prescribed by the employer. In addition, they are subject to all current labor laws and conditions.

The University does not guarantee employment, but makes every effort to place students to the best financial advantage that is consistent with the acquisition of sound subprofessional experience.

THE ENGINEERING SCHEDULE

Freshman Year
(Full Time)

First Semester (Fall)	Second Semester (Spring)

Sophomore Year
(Full Time)

First Semester (Fall)	Second Semester (Spring)	Third Term* (Summer)

Pre-Junior Year
(Cooperative)

	First Semester (Fall)			Second Semester (Spring)			Third Term (Summer)		
Section A	School	(1)*	Work	(1)	School	(2)	Work	(2)	School	(3)
Section B	Work	(1)*	School	(1)	Work	(2)	School	(2)	Work	(3)

Junior Year
(Cooperative)

	First Semester (Fall)			Second Semester (Spring)			Third Term (Summer)		
Section A	Work	(3)	School	(4)	Work	(4)	School	(5)	Work	(5)
Section B	School	(3)	Work	(4)	School	(4)	Work	(5)	School	(5)

Senior Year

	(Cooperative) First Semester (Fall)			(Full Time) Second Semester (Spring)
Section A	School	(6)	Work	(6)
Section B	Work	(6)	School	(6)

REQUIREMENTS FOR ADMISSION

In addition to the general requirements for admission to the University, students applying for admission in Engineering must present the following secondary school credits:

Algebra 1½ units — Plane Geometry 1 unit
Solid Geometry or Trigonometry ½ unit
Chemistry or Physics 1 unit

It is strongly recommended that applicants in Engineering present additional credits in mathematics and physical science.

Since the Engineering curricula have been designed to operate on an annual rather than on a semester basis, beginning students are regularly admitted only in September. In special cases, admission may be granted in February.

All beginning students register in the General College. Those admitted in Engineering will be eligible for promotion to the College of Engineering after satisfactory completion of the fourth semester Engineering schedule.

Because of the nature of the cooperative course, applicants from other universities or colleges should plan to enter the College of Engineering not later than at the beginning of the sophomore year.

* All third terms and all cooperative school and work periods are of one-half semester duration.

DEGREES

The College of Engineering offers curricula on the cooperative plan in Civil, Electrical, and Mechanical Engineering with an Industrial Option in Mechanical Engineering. The degrees conferred include the Bachelor of Civil Engineering, Bachelor of Electrical Engineering, and Bachelor of Mechanical Engineering.

For the Master's degree program in Engineering, see the Graduate Study Division.

REQUIREMENTS FOR GRADUATION

In addition to the regular University requirements, candidates for the Bachelor's degree in Engineering must: 1) earn credit in all of the required courses listed in the schedule, 2) accumulate at least 150 credits,* 3) earn a quality point ratio of at least 2 in departmental courses as well as in total credits, and 4) complete six cooperative work periods satisfactorily.

BASIC REQUIREMENTS FOR ALL DEGREES*

Freshman Year (Full Time)

First Semester (Fall)					Second Semester (Spring)				
	Subject	Rec.	Lab.	Cr.		Subject	Rec.	Lab.	Cr.
17:24	Algebra-Trig.	4	0	4	17:43	Anal. Geometry	4	0	4
5:27	Chemistry	3	3	4	5:28	Chemistry	3	3	4
33:21	Engr. Graphics I	1	6	3	33:22	Engr. Graphics II	1	6	3
33:23	Survey of Engr.	1	0	0	1:2	Written English	3	0	3
1:1	Written English	3	0	3	1:8	Effective Speaking	3	0	3
	ROTC	2	1	1½		ROTC	2	1	1½
1:21	Physical Education	0	2	½	1:22	Physical Education	0	2	½
		14	12	16			16	12	19

Sophomore Year (Full Time)

First Semester (Fall)					Second Semester (Spring)				
	Subject	Rec.	Lab.	Cr.		Subject	Rec.	Lab.	Cr.
17:45	Diff. Calculus	4	0	4	17:46	Int. Calculus	4	0	4
20:31	Physics	4	2	5	20:32	Physics	4	2	5
33:36	Engr. Matls.	3	0	3	33:48	Applied Mechanics I	3	0	3
1:15	Instit. in the U.S.	3	0	3	6:45	Economics	3	0	3
1:17	Western Cult.	2	2	3	1:18	Western Cult.	2	2	3
	ROTC	2	1	1½		ROTC	2	1	1½
		18	5	19½			18	5	19½

Third Term (Half Semester) (Summer)

	Subject		Rec.	Lab.	Cr.
	17:204	Diff. Equations	6	0	3
(1)	34:47	Surveying I	2	6	2
(2)	35:31	E.E. Fundamentals	5	3	3
(3)	36:41	Heat Power Principles	5	3	3
(4)	40:62	Prod. Management	6	0	3
		For C.E. students	13	9	8
		For E.E. students	16	6	9
		For M.E. students	14	6	8

(1) For C.E. and M.E. students.
(2) For E.E. students.
(3) For C.E. and E.E. students.
(4) For M.E. students.

* Students enrolled prior to September, 1961 will follow schedules in previous catalogs.

DEPARTMENTS OF INSTRUCTION

CIVIL ENGINEERING

The field of civil engineering may be divided into four branches covering structures, transportation, hydraulics and sanitation.

The structural engineer designs and supervises the construction of such facilities as bridges, buildings, dams and tunnels. He must consider not only utility and safety but also economy and appearance. Often the unseen part of structures, the foundation, presents problems most difficult of solution.

In the field of transportation, the civil engineer applies his design and construction ability to railroads, highways, airports and water transportation, including harbor facilities and waterways.

The hydraulic engineer is concerned with the control and conservation of water for such projects as water supply, irrigation, drainage, flood control, navigation and water power. In this field, determination of economic feasibility is of utmost importance.

The sanitary engineer devotes his efforts to improving the cleanliness and healthfulness of both industrial and residential areas. Safe water supplies and adequate facilities for the removal of wastes are unquestioned necessities in modern communities.

Many civil engineers are employed by departments of federal, state and local governments. Others are employed by construction companies or by firms of consulting engineers.

SCHEDULE OF REQUIRED COURSES

Pre-Junior Year (Cooperative)

First Semester (Fall) (Sections A and B)*

	Subject	Rec.	Lab.	Cr.
34:101	Mechanics of Matls. I	5	0	2½
33:103	Applied Mechanics II	5	0	2½
33:113	Technical Discourse I	2	0	1
33:137	Engr. Materials Lab.	0	3	½
35:30	D.C. & A.C. Principles	3	3	2
		15	6	8½

Second Semester (Spring) (Sections A and B)*

	Subject	Rec.	Lab.	Cr.
34:102	Mechanics of Matls. II	3	0	1½
35:132	Electrical Machinery	4	3	2½
33:114	Technical Discourse II	2	0	1
34:105	Structural Analysis	5	0	2½
3:77	Intro. Bacteriology	2	6	2
		16	9	9½

Third Term (Half Semester) (Summer) (Section A Only)

	Subject	Rec.	Lab.	Cr.
36:171	Fluid Mechanics	5	0	2½
33:115	Technical Discourse III	2	0	1
34:109	Surveying II	2	6	2
34:106	Indeter. Structures	5	3	3
		14	9	8½

Junior Year (Cooperative)

First Semester (Fall) (Section B — First Half)

	Subject	Rec.	Lab.	Cr.
36:171	Fluid Mechanics	5	0	2½
33:115	Technical Discourse III	2	0	1
34:109	Surveying II	2	6	2
34:106	Indeter. Structures	5	3	3
		14	9	8½

Second Semester (Spring) (Section B — First Half)

	Subject	Rec.	Lab.	Cr.
33:116	Technical Discourse IV	2	0	1
34:116	Surveying III	2	6	2
34:114	Steel Design I	5	0	2½
34:107	Hydrology	4	0	2
34:111	Hydraulics	2	6	2
		15	12	9½

* Section A attends classes for first half of semester. Section B attends classes for second half of semester.

(Section A – Second Half)

Subject	Rec.	Lab.	Cr.
33:116 Tech. Discourse IV	2	0	1
34:116 Surveying III	2	6	2
34:114 Steel Design I	5	0	2½
34:107 Hydrology	4	0	2
34:111 Hydraulics	2	6	2
	15	12	9½

(Section A – Second Half)

Subject	Rec.	Lab.	Cr.
33:117 Technical Discourse V	2	0	1
34:119 Surveying IV	2	6	2
34:115 Steel Design II	5	0	2½
34:121 Water Supply	5	0	2½
34:112 Concrete Mixtures Lab.	0	6	1
	14	12	9

Third Term (Half Semester)
(Summer)
(Section B Only)

Subject	Rec.	Lab.	Cr.
33:117 Technical Discourse V	2	0	1
34:119 Surveying IV	2	6	2
34:115 Steel Design II	5	0	2½
34:121 Water Supply	5	0	2½
34:112 Concrete Mixtures Lab.	0	6	1
	14	12	9

Senior Year

First Semester (Cooperative)
(Fall)
(Sections A and B)*

Subject	Rec.	Lab.	Cr.
34:117 Reinf. Conc. Des. I	5	0	2½
34:122 Sewerage	5	0	2½
34:120 Soil Mechanics	4	6	3
34:123 Sanitary Laboratory	0	6	1
34:127 C. E. Seminar I	1	0	½
	15	12	9½

Second Semester (Full Time)
(Spring)

Subject	Rec.	Lab.	Cr.
34:118 Reinf. Conc. Des. II	3	0	3
34:124 Sanitary Design	0	3	1
34:125 Highways	3	0	3
34:113 Bitum. Mixtures Lab.	0	3	1
34:126 Community Planning	3	0	3
34:130 C. E. Seminar II	1	3	2
20:150 Modern Physics	2	0	2
1:101 Senior Seminar	2	0	2
	14	9	17

ELECTRICAL ENGINEERING

The many branches of electrical engineering include production and distribution of electrical energy; development and manufacture of electrical equipment and products ranging in size from huge generators to miniature electric bulbs; design, installation and operation of communication systems including telephone, telegraph, radio and television; adaptation of electronic principles to industrial needs such as indicating and control mechanisms; design of modern lighting, both indoors and out; design of electrical systems for vehicles, ships and aircraft and cooperation in such fields as electro-chemistry, metallurgy and medicine.

The growth of the electrical industry has been steady and rapid. Electrical manufacturing is one of the leading American industries and includes organizations of all sizes from the privately owned shop employing a few workers to the huge corporation manufacturing hundreds of items and employing thousands of men and women.

The majority of electrical engineers are employed by utility companies and manufacturers of electrical equipment. Other employment opportunities may be found with large industrial firms and with electrical contractors and consultants.

* Section A attends classes for first half of semester. Section B attends classes for second half of semester.

SCHEDULE OF REQUIRED COURSES

Pre-Junior Year (Cooperative)

First Semester (Fall)
(Sections A and B)*

Subject	Rec.	Lab.	Cr.
34:101 Mechanics of Matls. I	5	0	2½
33:103 Applied Mechanics II	5	0	2½
33:113 Technical Discourse I	2	0	1
33:137 Engr. Materials Lab.	0	3	½
35:133 A.C. Circuits I	5	3	3
	17	6	9½

Second Semester (Spring)
(Sections A and B)*

Subject	Rec.	Lab.	Cr.
35:134 A.C. Circuits II	5	3	3
35:143 Elect. Machinery I	3	0	1½
33:114 Technical Discourse II	2	0	1
35:139 Electromagnetic Fields	4	0	2
35:175 Electrical Lab. I	0	3	½
	14	6	8

Third Term (Half Semester)
(Summer)
(Section A Only)

Subject	Rec.	Lab.	Cr.
36:171 Fluid Mechanics	5	0	2½
33:115 Technical Discourse III	2	0	1
35:144 Elect. Machinery II	3	0	1½
35:136 Elect. Measurements I	3	0	1½
35:161 Electronics I	3	0	1½
35:176 Electrical Lab II	0	9	1½
	16	9	9½

Junior Year (Cooperative)

First Semester (Fall)
(Section B — First Half)

Subject	Rec.	Lab.	Cr.
36:171 Fluid Mechanics	5	0	2½
33:115 Technical Discourse III	2	0	1
35:144 Elect. Machinery II	3	0	1½
35:136 Elect. Measurements I	3	0	1½
35:161 Electronics I	3	0	1½
35:176 Electrical Lab. II	0	9	1½
	16	9	9½

(Section A — Second Half)

Subject	Rec.	Lab.	Cr.
33:116 Technical Discourse IV	2	0	1
35:146 Elect. Machinery III	3	0	1½
35:137 Elect. Measurements II	3	0	1½
35:135 Illumination	4	0	2
35:162 Electronics II	3	0	1½
35:177 Electrical Lab. III	0	9	1½
	15	9	9

Second Semester (Spring)
(Section B — First Half)

Subject	Rec.	Lab.	Cr.
33:116 Technical Discourse IV	2	0	1
35:146 Elect. Machinery III	3	0	1½
35:137 Elect. Measurements II	3	0	1½
35:135 Illumination	4	0	2
35:162 Electronics II	3	0	1½
35:177 Electrical Lab. III	0	9	1½
	15	9	9

(Section A — Second Half)

Subject	Rec.	Lab.	Cr.
33:117 Technical Discourse V	2	0	1
35:164 Electronics III	3	0	1½
35:147 Elect. Machinery IV	3	0	1½
35:140 Elect. Transients	5	0	2½
35:138 Elect. Measurements III	3	0	1½
35:178 Electrical Lab. IV	0	9	1½
	16	9	9½

Third Term (Half Semester)
(Summer)
(Section B Only)

Subject	Rec.	Lab.	Cr.
33:117 Technical Discourse V	2	0	1
35:164 Electronics III	3	0	1½
35:147 Elect. Machinery IV	3	0	1½
35:140 Elect. Transients	5	0	2½
35:138 Elect. Measurements III	3	0	1½
35:178 Electrical Lab. IV	0	9	1½
	16	9	9½

* Section A attends classes for first half of semester. Section B attends classes for second half of semester.

Senior Year

First Semester (Cooperative) (Fall) (Sections A and B)*

Subject	Rec.	Lab.	Cr.
35:149 Inds. Instrumentation	4	0	2
35:169 Electronics IV	3	0	1½
35:158 Trans. Lines & Netw.	5	0	2½
35:170 Computers	4	0	2
35:179 Electrical Lab. V	0	9	1½
	16	9	9½

Second Semester (Full Time) (Spring)

Subject	Rec.	Lab.	Cr.
35:168 Ultra High Freq.	3	0	3
35:171 Elem. of Servo-Mech.	3	0	3
35:167 E. E. Problems	0	3	1
20:150 Modern Physics	2	0	2
35:180 Electrical Lab. VI	0	9	3
1:101 Senior Seminar	2	0	2
	10	12	14

MECHANICAL ENGINEERING

The more important branches of mechanical engineering include machine design, manufacturing and production methods, and the heat-power field.

The importance of machine design in this age is self-evident. The mechanical engineer designs and supervises the manufacture of the machines used in everyday life and the machine tools which make these machines. The design of special equipment challenges the ingenuity of the mechanical engineer.

In the field of heat-power, the mechanical engineer designs, builds and operates boilers, turbines and engines which convert the heat content of fuels into useful energy for immediate application or for conversion into electrical energy which can be distributed over wide areas. Motive power for automobiles, railroads, ships and aircraft is being constantly improved with respect to both thermal efficiency and dependability.

The design and installation of complete air conditioning equipment for the control of both temperature and humidity is a relatively recent but major development in the heat-power field.

All the way from the mine to the final delivery of finished products, the knowledge and skill of the mechanical engineer have aided the development of modern industry.

The majority of mechanical engineers are employed in a wide variety of capacities in industry but a limited number act as independent consultants.

SCHEDULE OF REQUIRED COURSES

Pre-Junior Year (Cooperative)

First Semester (Fall) (Sections A and B)*

Subject	Rec.	Lab.	Cr.
34:101 Mechanics of Matls. I	5	0	2½
33:103 Applied Mechanics II	5	0	2½
33:113 Technical Discourse I	2	0	1
33:137 Engr. Materials Lab.	0	3	½
35:30 D.C. & A.C. Principles	3	3	2
	15	6	8½

Second Semester (Spring) (Sections A and B)*

Subject	Rec.	Lab.	Cr.
34:102 Mechanics of Matls. II	3	0	1½
35:132 Electrical Machinery	4	3	2½
33:114 Technical Discourse II	2	0	1
36:177 Thermodynamics I	4	3	2½
36:172 Manufacturing Methods	4	0	2
	17	6	9½

Third Term (Half Semester) (Summer) (Section A Only)

Subject	Rec.	Lab.	Cr.
36:171 Fluid Mechanics	5	0	2½
33:115 Technical Discourse III	2	0	1
35:154 Electronic Fundamentals	4	3	2½
36:173 Mechanisms	4	9	3½
	15	12	9½

* Section A attends classes for first half of semester. Section B attends classes for second half of semester.

Junior Year
(Cooperative)

First Semester
(Fall)
(Section B — First Half)

Subject	Rec.	Lab.	Cr.
36:171 Fluid Mechanics	5	0	2½
33:115 Technical Discourse III	2	0	1
35:154 Electronic Funda.	4	3	2½
36:173 Mechanisms	4	9	3½
	15	12	9½

(Section A — Second Half)

Subject	Rec.	Lab.	Cr.
33:116 Technical Discourse IV	2	0	1
33:135 Physical Metallurgy	4	3	2½
36:181 Thermodynamics II	4	3	2½
36:182 Machine Design I	5	0	2½
	15	6	8½

Second Semester
(Spring)
(Section B — First Half)

Subject	Rec.	Lab.	Cr.
33:116 Technical Discourse IV	2	0	1
33:135 Physical Metallurgy	4	3	2½
36:181 Thermodynamics II	4	3	2½
36:182 Machine Design I	5	0	2½
	15	6	8½

(Section A — Second Half)

Subject	Rec.	Lab.	Cr.
33:117 Technical Discourse V	2	0	1
33:128 Engineering Economy	5	0	2½
36:170 Engr. Administration I	3	0	1½
36:183 Machine Design II	2	6	2
36:184 Heat Transfer	4	3	2½
	16	9	9½

Third Term (Half Semester)
(Summer)
(Section B Only)

Subject	Rec.	Lab.	Cr.
33:117 Technical Discourse V	2	0	1
33:128 Engineering Economy	5	0	2½
36:170 Engr. Administration I	3	0	1½
36:183 Machine Design II	4	0	2
36:184 Heat Transfer	4	3	2½
	18	3	9½

Senior Year

First Semester (Cooperative)
(Fall)
(Sections A and B)*

Subject	Rec.	Lab.	Cr.
35:149 Inds. Instrumentation	4	0	2
35:181 Inds. Instrument. Lab.	0	3	½
36:174 Fluid Mechanics Lab.	0	6	1
36:169 Engr. Administration II	6	0	3
36:191 Thermodynamics III	3	3	2
36:210 Elem. of Vibrations	4	0	2
	17	12	10½

Second Semester (Full Time)
(Spring)

Subject	Rec.	Lab.	Cr.
36:187 Heating & Air Cond.	3	0	3
36:192 Heat Machines	3	3	4
36:196 Inspection Trips	0	3	1
36:197 M. E. Problems	1	6	3
20:150 Modern Physics	2	0	2
1:101 Senior Seminar	2	0	2
	11	12	15

INDUSTRIAL OPTION

Mechanical Engineering students may elect an Industrial Option by substituting approved Industrial Management courses for 36:187 and 36:192 and by selecting an appropriate project in 36:197 for a total of 10 credits. The approved Industrial Management courses include:

42:166 Motion and Time Study (required)
42:203 Production Planning and Control
42:205 Quality Control

* Section A attends classes for first half of semester. Section B attends classes for second half of semester.

BASIC ENGINEERING COURSES

GENERAL COLLEGE

33:20. DRAWING INTERPRETATION AND SKETCHING. 1 *credit.* (0-1)*

For Industrial Management students. Principles of projections. Freehand and scaled sketches. Dimensioning, cross sections, notes and shop terms. Reading exercises on prints of machines, structures and industrial layouts.

33:21. ENGINEERING GRAPHICS I. 3 *credits.* (1-2)

Instruments and their use. Geometric drawing. Orthographic projection. Graphical methods of solving three dimensional problems involving lines and planes.

33:22. ENGINEERING GRAPHICS II. 3 *credits.* (1-2)

Sections and conventional practices. Screw threads. Dimensioning. Pictorial drawings. Working drawings. Intersection of lines and planes. Intersection and development of plane surfaces. Charts, graphs and diagrams. Vector geometry and nomography.

33:23. SURVEY OF ENGINEERING. 0 *credit.* (1-0)

Engineering as a profession, including personal aptitudes, educational requirements, scope of various branches, professional duties, responsibilities and ethics. Lectures by staff members and practicing engineers.

33:26. MACHINE DRAWING. *Evening session.* 2 *credits* (0-2)

Prerequisite, 33:25. Detail and assembly drawings of machines and equipment. Technical sketching. Notes and specifications. Shop terms and methods.

33:36. ENGINEERING MATERIALS. 3 *credits.* (3-0)

Prerequisite, 5:28. Manufacture, physical properties and uses of ferrous and nonferrous metals, wood, clay products, concrete and plastics. Alloys and the equilibrium diagram. Heat treatment.

33:48. APPLIED MECHANICS I. 3 *credits.* (3-0)

Prerequisite, 20:31. Prerequisite or corequisite, 17:46. Forces. Resultants. Couples. Equilibrium of force systems. Friction. First moments and centroids. Second moments of areas. Moments of inertia of bodies.

UPPER COLLEGE

33:101. NUCLEAR ENGINEERING FUNDAMENTALS. 3 *credits.* (3-0)

Prerequisites, 17:46, 20:32. Lectures on atomic and nuclear structure, radio activity, nuclear transformation, radiation protection, instrumentation, nuclear fission, reactor principles and types. Demonstrations with nuclear reactor and instrumentation.

33:103. APPLIED MECHANICS II. 2½ *credits.* (2½-0)

Prerequisites, 33:48, 17:204. Kinematics. Kinetics of the particle and the rigid body. Impulse and momentum. Euler's equations of motion. D'Alembert's particle and the rigid body.

33:113. TECHNICAL DISCOURSE I. 1 *credit.* (1-0)

Prerequisite, 1:2. Principles of technical report writing with emphasis on informative content in letters and memoranda. Readings in contemporary prose.

* Rec.-Lab. credit.

33:114. TECHNICAL DISCOURSE II. 1 *credit.* (1-0)
Prerequisite, 33:113. Continuation of 33:113 with emphasis on preparation of informal and formal technical reports. Readings in poetry.

33:115. TECHNICAL DISCOURSE III. 1 *credit.* (1-0)
Prerequisites, 1:8, 33:114. Principles of technical speech content and delivery.

33:116. TECHNICAL DISCOURSE IV. 1 *credit.* (1-0)
Prerequisite, 33:115. Continuation of 33:114. Readings in drama.

33:117. TECHNICAL DISCOURSE V. 1 *credit.* (1-0)
Prerequisite, 33:116. Preparation of technical material for publication with emphasis on graphic representation. Preparation of technical material for oral delivery with emphasis on visual aids.

33:128. ENGINEERING ECONOMY. 2½ *credits.* (2½-0)
Prerequisite, Pre-Junior standing. Principles of engineering economy including equivalence, alternatives, costs, depreciation, valuation and selected project studies.

33:133. NON-FERROUS METALLURGY. *Evening session.* 3 *credits.* (3-0)
Prerequisite, 5:22 or 5:28, or permission of instructor. Physical properties of nonferrous metals. Principles of alloying. Phase diagrams. White metals, light alloys, copper alloys. Die castings.

33:134. FERROUS METALLURGY. *Evening session.* 3 *credits.* (3-0)
Prerequisite, 33:133. Properties of pure iron and carbon steel. Effects of alloying elements and impurities. Heat treatment. Surface treatment. Cast steel. Welding. Cast iron. High alloy steels. Tool steels.

33:135. PHYSICAL METALLURGY. 2½ *credits.* (2-½)
Prerequisites, 5:28, 33:36. Principles of alloying. Alloy phase diagrams. Effects of alloying on physical properties. Crystal mechanism of metal processing. Powder metallurgy. Verification of principles by laboratory experiment.

33:137. ENGINEERING MATERIALS LABORATORY. ½ *credit.* (0-½)
Prerequisite, 33:36. Testing machines and techniques. Verification of physical properties as determined by tests of materials in tension, compression, bending and torsion.

GRADUATE COURSES

33:301. COMPUTERS AND COMPUTER METHODS. 3 *credits.* (3-0)
Prerequisite, 17:204. Construction and operation of analog and digital computers. Solution of equations. Numerical analysis principles. Programming. Special uses and techniques. Lectures, demonstrations, problems.

33:303. DATA ANALYSIS. 3 *credits.* (3-0)
Prerequisite, 17:204. Analysis, interpretation and smoothing of engineering data through application of statistical and correlation theory. Use of probability papers in design for extremes. Study of measurement accuracy and reliability. Methods for deriving composite relations from empirical observations of segmental nature. Lectures, problems.

33:310. SPECIAL PROBLEMS. 1 *to* 6 *credits.*

Prerequisite, permission of Department Head. For qualified candidates for the Master's degree. Supervised research or investigation in student's major field of training or experience. Credit dependent upon nature and extent of project as determined by Supervisor, Department Head and Dean.

CIVIL ENGINEERING COURSES

GENERAL COLLEGE

34:47. SURVEYING I. 2 *credits.* (1-1)*

Prerequisite, 17:24. Principles of plane surveying. Use of tape, level and transit. Computation of areas. Field problems involving measurement of horizontal and vertical distances and angles.

UPPER COLLEGE

34:101. MECHANICS OF MATERIALS I. 2½ *credits.* (2½-0)

Prerequisite, 33:48. Stress and strain caused by tension, compression, torsion and flexure. Riveted and welded joints. Shear and moment diagrams. Beams of two materials. Deflection of beams by integration. Combined direct and flexural stresses. Axially loaded columns.

34:102. MECHANICS OF MATERIALS II. 1½ *credits.* (1½-0)

Prerequisite, 34:101. Deflection of beams by moment-area. Elastic energy. Impact. Combined stresses. Mohr's circle. Eccentrically loaded columns.

34:105. STRUCTURAL ANALYSIS. 2½ *credits.* (2½-0)

Prerequisite, 34:101. Analysis of roof trusses, mill bents and bridge trusses. Fixed and moving loads. Influence lines.

34:106. INDETERMINATE STRUCTURES. 3 *credits.* (2½-½)

Prerequisite, 34:105. Indeterminate beams, frames and trusses. Moment-Area, Energy, Slope-deflection, Moment distribution, Williot-Mohr, and Column analogy methods. Laboratory work in deformeter analysis of structural models.

34:107. HYDROLOGY. 2 *credits.* (2-0)

Prerequisite, 36:171. Factors affecting ground water and stream flow. Application of principles to problems of water supply and flood routing.

34:109. SURVEYING II. 2 *credits.* (1-1)

Prerequisite, 34:47. Precise leveling. Triangulation. Theory and adjustment of errors in networks. Astronomic observations pertinent to surveying. Field adjustment of instruments. Topography.

34:111. HYDRAULICS. 2 *credits.* (1-1)

Prerequisite, 36:171. Application of fluid mechanics principles to water flowing in pipes and open channels. Verification of fluid mechanics and hydraulics concepts in the laboratory.

34:112. CONCRETE MIXTURES LABORATORY. 1 *credit.* (0-1)

Prerequisite, Junior standing. Tests of cement, aggregates and concrete in accordance with A.S.T.M. Standards. Design of concrete mixes.

* Rec.-Lab. credit.

34:113. BITUMINOUS MIXTURES LABORATORY. 1 *credit.* (0-1)
Prerequisite, 34:112. A.S.T.M. tests of asphaltic materials. Design of bituminous mixtures.

34:114. STEEL DESIGN I. 2½ *credits.* (2½-0)
Prerequisites, 34:102, 34:105. Connections, beams, columns, tension members, base plates, floor systems, combined direct stress and bending.

34:115. STEEL DESIGN II. 2½ *credits.* (2½-0)
Prerequisite, 34:114. Plate girders, roof trusses and mill bents. Bridge trusses. Elementary plastic design principles.

34:116. SURVEYING III. 2 *credits.* (1-1)
Prerequisite, 34:109. Surveying pertinent to highways. Circular, spiral and parabolic curves. Earthwork computations. Mass diagrams and establishment of final grade.

34:117. REINFORCED CONCRETE DESIGN I. 2½ *credits.* (2½-0)
Prerequisites, 34:102, 34:106. Prerequisite or corequisite, 34:112. Flexural and web reinforcement of beams. Axial and eccentric columns. Footings. Elastic and ultimate strength design principles.

34:118. REINFORCED CONCRETE DESIGN II. 3 *credits.* (3-0)
Prerequisite, 34:117. Floor systems and building frames. Retaining walls. Prestressed concrete beams. Temperature and creep phenomena. Additional ultimate strength considerations.

34:119. SURVEYING IV. 2 *credits.* (1-1)
Prerequisite, 34:116. Photogrammetry. Fundamental principles involved in surveying by aerial or other photography, including the reduction of the photograph to a map. Laboratory exercises in the photographic study of a prepared geometric landscape. Experience with the basic photogrammetric instruments.

34:120. SOIL MECHANICS AND FOUNDATIONS. 3 *credits.* (2-1)
Prerequisites, 34:102, 36:171. Soil identification and physical properties. Subsurface investigation. Types of foundations, basis of design, methods of construction. Laboratory tests of soil samples to determine physical properties and structural behavior.

34:121. WATER SUPPLY. 2½ *credits.* (2½-0)
Prerequisites, 34:107, 34:111. Quality and quantity requirements. Development of surface and ground water supplies. Treatment of domestic and industrial supplies. Distribution systems, including reservoirs and pumping stations. Principles of water works finance.

34:122. SEWERAGE. 2½ *credits.* (2½-0)
Prerequisites, 34:107, 34:111. Hydraulics of sewers. Quantity of domestic sewage and storm water. Collection by separate and combined systems. Treatment of domestic sewage.

34:123. SANITARY LABORATORY. 1 *credit.* (0-1)
Corequisite, 34:122. Selected physical, chemical and bacteriological tests on raw and treated water and sewage.

34:124. SANITARY DESIGN. 1 *credit.* (0-1)
Prerequisite, 34:122. Analysis of water distribution system. Water works finance, including least capitalized cost. Design of sanitary and storm water drains. Dimensional design of water and sewage treatment units.

34:125. HIGHWAYS. 3 *credits.* (3-0)

Prerequisites, 34:112, 34:119, 34:120. Prerequisite or corequisite, 34:113. Administration, planning and finance of modern highways. Highway economy. Traffic capacity and control. Geometric and structural design of flexible and rigid pavements. Drainage. Stabilization. Surfaces. Maintenance.

34:126. COMMUNITY PLANNING. 3 *credits.* (3-0)

Prerequisite, Senior standing. History of community planning. Provisions for orderly and balanced development. Zoning. Benefits of planning as reflected in physical and mental health of residents. Requirements for streets, playgrounds, parks, transportation facilities. Development of residential, commercial, industrial and civic areas. Detailed study of a selected modern city plan.

34:127. CIVIL ENGINEERING SEMINAR I. ½ *credit.* (½-0)

Prerequisite, Senior standing. Discussion of current Civil Engineering papers, news and activities. Selection of a Senior thesis topic.

34:130. CIVIL ENGINEERING SEMINAR II. 2 *credits.* (1-1)

Prerequisite, 34:127. Discussion of current Civil Engineering papers, news and activities. Investigation or solution of an individual problem, including a formal report, as a Senior thesis.

34:201. AIRCRAFT STRUCTURAL ANALYSIS. 3 *credits.* (3-0)

Prerequisites, 34:106, 34:114. Shear center. Unsymmetrical bending. Buckling of thin plates. Semi-monocoque structures. Shear webs. General theory of indeterminate structures applied to rings and complex structures. Beam columns. Successive approximation applied to multi-cell structures.

GRADUATE COURSES

34:302. ELASTICITY AND PLASTICITY. 3 *credits.* (3-0)

Prerequisites, 34:102 and 17:114 or 17:204. Theory of elastic and inelastic behavior of engineering materials. Applications of plastic behavior to structural use of materials. Phenomenologic, rheologic and structure-of-matter considerations.

34:303. PLASTIC DESIGN OF METAL STRUCTURES. 3 *credits.* (3-0)

Prerequisite, 34:115. Principles of plastic behavior of steel and aluminum. Plastic analysis of metal structures by the mechanism and equilibrium methods. Design of structural elements and connections. Advantages and limitations of plastic considerations.

34:304. ADVANCED REINFORCED CONCRETE DESIGN. 3 *credits.* (3-0)

Prerequisite, 34:118. Ultimate strength design of reinforced concrete members. Analysis and design of prestressed concrete beams and frames.

ELECTRICAL ENGINEERING COURSES

GENERAL COLLEGE

35:30. DIRECT CURRENT AND ALTERNATING CURRENT PRINCIPLES. 2 *credits.* (1½-½)*

Prerequisite, 20:32. For C.E. and M.E. students. Principles of direct current circuits, generators and motors. Principles of alternating current circuits and instruments.

* Rec.-Lab. credit.

35:31. ELECTRICAL ENGINEERING FUNDAMENTALS. 3 *credits.* (2½-½)
Prerequisite, 20:32. Fundamental units of electricity. Basic laws of Ohm, Kerchhoff, Ampere and Lenz. Analysis of series and parallel circuits. Direct current transients.

UPPER COLLEGE

35:132. ELECTRICAL MACHINERY. 2½ *credits.* (2-½)
Prerequisite, 35:30. For M.E. and C.E. students. Study of principles, characteristics and applications of A.C. and D.C. machinery.

35:133. ALTERNATING CURRENT CIRCUITS I. 3 *credits.* (2½-½)
Prerequisite, 35:31. Vector analysis of alternating current, voltage and power. Complex operator. Real and apparent power. Series and parallel circuits. Network theorems. Coupled circuits.

35:134. ALTERNATING CURRENT CIRCUITS II. 3 *credits.* (2½-½)
Prerequisite, 35:133. Balanced and unbalanced polyphase circuits. Study of circuit response to voltages having harmonic components.

35:135. ILLUMINATION. 2 *credits.* (2-0)
Prerequisite, 20:32. Fundamentals of illumination and principles underlying specifications and designs for adequate electrical lighting.

35:136. ELECTRICAL MEASUREMENTS I. 1½ *credits.* (1½-0)
Prerequisite, 35:31. Measurement of high and low resistance. Galvanometer fundamentals. Magnetic tests. D. C. meters. Potentiometers.

35:137. ELECTRICAL MEASUREMENTS II. 1½ *credits.* (1½-0)
Prerequisites, 35:134, 35:136. Alternating current bridges. Alternating current instruments and instrument transformers.

35:138. ELECTRICAL MEASUREMENTS III. 1½ *credits.* (1½-0)
Prerequisite, 35:137. Collection, interpretation and presentation of data obtained in scientific measurements.

35:139. ELECTROMAGNETIC FIELDS. 2 *credits.* (2-0)
Prerequisite, 35:133. Electrostatic fields. Coulomb's Law and Gauss's Law. Magnetostatic fields. Time varying fields. Faraday's Law and Ampere's Law. Boundary conditions. Introduction to Maxwell's Equations.

35:140. ELECTRICAL TRANSIENTS. 2½ *credits.* (2½-0)
Prerequisite, 35:133. Solution of general impedance function equation to establish steady state and transient responses of complex circuits. Use of operational methods.

35:143. ELECTRICAL MACHINERY I. 1½ *credits.* (1½-0)
Prerequisite, 35:133. Generation of voltage in machines. Transformers, D. C. machines, A. C. machines, windings, rotating field. D. C. machine characteristics.

35:144. ELECTRICAL MACHINERY II. 1½ *credits.* (1½-0)
Prerequisite, 35:143. Transformers. Induction motors. Equivalent circuits and characteristics.

35:146. ELECTRICAL MACHINERY III. 1½ *credits.* (1½-0)
Prerequisite, 35:144. A. C. generator and synchronous motor characteristics. Generator regulation. Synchronous motor applications.

35:147. ELECTRICAL MACHINERY IV. 1½ *credits.* (1½-0)
Prerequisite, 35:146. Principles and applications of power and fractional horsepower single-phase motors.

35:149. INDUSTRIAL INSTRUMENTATION. 2 *credits.* (2-0)
Prerequisite, 35:132 or 35:143. Principles of electric indicating, recording and control instruments as applied to temperature, pressure and fluid flow. Detailed analysis of measuring characteristics of such instruments.

35:154. ELECTRONIC FUNDAMENTALS. 2½ *credits.* (2-½)
Prerequisite, 35:132. For M.E. students. Characteristics of vacuum and gas tubes. Amplifiers, power supplies, oscillators, polyphase rectifiers. Industrial electronic control circuits.

35:158. TRANSMISSION LINES AND NETWORKS. 2½ *credits.* (2½-0)
Prerequisite, 35:140. Steady-state and transient solutions of distributed constant circuits. Application of transmission line at power, audio and radio frequencies.

35:161. ELECTRONICS I. 1½ *credits.* (1½-0)
Prerequisites, 35:134 and 35:139, 17:204. Physics of electron devices. Electron ballistics and emission. Vacuum and gas tubes. Semiconductors. Rectification and filtering.

35:162. ELECTRONICS II. 1½ *credits.* (1½-0)
Prerequisite, 35:161. Industrial electronics. Tubes in A. C. circuits. Time delay. Photoelectric applications. Motor and generator control.

35:164. ELECTRONICS III. 1½ *credits.* (1½-0)
Prerequisite, 35:162. Circuit analysis of electron devices in frequency domain. Equivalent circuits. Amplifiers. Oscillators. Modulation and detection.

35:167. ELECTRICAL ENGINEERING PROBLEMS. 1 *credit.* (0-1)
Prerequisite, Senior standing. Selected comprehensive problems. Supervised discussion and computation periods.

35:168. ULTRA HIGH FREQUENCIES. 3 *credits.* (3-0)
Prerequisites, 35:158, 35:169. Maxwell's Equations. Wave equations. Field analysis of waveguides. Microwave components. Klystron and magnetron oscillators.

35:169. ELECTRONICS IV. 1½ *credits.* (1½-0)
Prerequisites, 35:164 and 35:140. Transient circuit analysis of electron devices. Relaxation circuits. Wave shaping and generation. Pulse amplifiers. Instrumentation and systems.

35:170. COMPUTERS. 2 *credits.* (2-0)
Prerequisites, 35:164 and 35:140. Fundamentals underlying the use, construction and operation of analog and digital computers.

35:171. ELEMENTS OF SERVO-MECHANISMS. 3 *credits.* (3-0)
Prerequisites, 35:164 and 35:140. Study of electromechanical systems through an analysis of the dynamic equations. Consideration of closed loop systems involving feedback.

35:175. ELECTRICAL LABORATORY I. ½ *credit.* (0-½)
Corequisites, 35:134, 35:139, 35:143.

35:176. ELECTRICAL LABORATORY II. 1½ *credits.* (0-1½)
Prerequisite, 35:175. Corequisites, 35:136, 35:144, 35:161.

35:177. ELECTRICAL LABORATORY III. 1½ *credits.* (0-1½)
Prerequisite, 35:176. Corequisites, 35:135, 35:137, 35:146, 35:162.

35:178. ELECTRICAL LABORATORY IV. 1½ *credits.* (0-1½)
Prerequisite, 35:177. Corequisites, 35:138, 35:140, 35:147, 35:164.

35:179. ELECTRICAL LABORATORY V. 1½ *credits.* (0-1½)
Prerequisite, 35:178. Corequisites, 35:149, 35:158, 35:169, 35:170.

35:180. ELECTRICAL LABORATORY VI. 3 *credits.* (0-3)
Prerequisite, 35:179. Corequisites, 35:168, 35:171.

Experiments in each of the above laboratory courses are correlated with content from several theory courses as a means of demonstrating interrelationships.

35:181. INDUSTRIAL INSTRUMENTATION LABORATORY. ½ *credit.* (0-½)
Corequisite, 35:149. For M.E. students. Experimental analysis of different systems of control.

GRADUATE COURSES

35:300. ADVANCED CIRCUIT THEORY. 3 *credits.* (3-0)
Prerequisites, 35:134, 17:204 and one additional mathematics course. Steady state and transient response of circuits and filters to continuous and pulse voltages. Use of time vs. frequency domain analysis. Introduction of pole and zero concept in circuit analysis.

35:301. SERVO-MECHANISMS. 3 *credits.* (3-0)
Prerequisite, 35:300. Formulation of integro-differential equations of linear electrical and mechanical systems, the LaPlace transform, dynamics of closed loop systems, the K G locus, representation of the G function, the stability problem and Nyquist criterion.

35:302. NETWORK ANALYSIS. 3 *credits.* (3-0)
Prerequisite, 35:300. Use of pole and zero concept in the analysis of active and passive two and four terminal networks. Stability considerations.

35:303. ELECTROMAGNETIC FIELD THEORY. 3 *credits.* (3-0)
Prerequisite, 35:300. Analysis of distributed parameter devices such as lines, wave guides and antennas by application of Maxwell's equations.

MECHANICAL ENGINEERING COURSES

GENERAL COLLEGE

36:41. HEAT POWER PRINCIPLES. 3 *credits.* (2½-½)*
Prerequisites, 20:31, 17:46. For C.E. and E.E. students. Thermodynamic principles including the first and second laws. Study of cycles involving gases, vapors and mixtures. Applications in I. C. engines, compressors, steam plants, refrigeration and air conditioning.

* Rec.-Lab. credit.

UPPER COLLEGE

36:169. ENGINEERING ADMINISTRATION II. 3 *credits.* (3-0)
Prerequisite, 36:170. Organization and coordinated administration of functional engineering groups required in research, development, production and distribution.

36:170. ENGINEERING ADMINISTRATION I. 1½ *credits.* (1½-0)
Prerequisite, 40:62. Legal phases of engineering, including contracts, specifications, patents and copyrights. Professional ethics.

36:171. FLUID MECHANICS. 2½ *credits.* (2½-0)
Prerequisite, 33:103. Properties and behavior of gases and liquids at rest and in motion. The energy equation. Flow in conduits. Forces on body submerged in moving fluid. Characteristics of turbines, pumps and fluid couplings.

36:172. MANUFACTURING METHODS. 2 *credits.* (2-0)
Prerequisite, 33:36. Production machine tools. Foundry methods and equipment. Stamping. Spinning. Welding. Precision measurement. Inspection. Safety.

36:173. MECHANISMS. 3½ *credits.* (2-1½)
Prerequisite, 33:103. Displacement, velocity and acceleration of machine parts and devices for producing desired motions. Development of gear elements. Action of gear trains. Concurrent use of analytical and graphical methods.

36:174. FLUID MECHANICS LABORATORY. 1 *credit.* (0-1)
Prerequisite, 36:171. Verification of fluid flow through orifices and conduits and around submerged bodies. Metering devices. Performance tests of fluid machinery.

36:177. THERMODYNAMICS I. 2½ *credits.* (2-½)
Prerequisites, 20:31, 17:46. Fundamental concepts, including the first and second laws, fluid properties and gas characteristics. Instrumentation.

36:180. LIGHTER-THAN-AIR THEORY. 2 *credits.* (2-0)
Prerequisites, 17:46, 34:101. Basic aerodynamic and stress analysis theories involved in airship component development such as fabric design, control system analysis, performance calculations and valve limitation studies.

36:181. THERMODYNAMICS II. 2½ *credits.* (2-½)
Prerequisite, 36:177. Study of real gases, mixtures and combustion, including flow of fluids.

36:182. MACHINE DESIGN I. 2½ *credits.* (2½-0)
Prerequisites, 36:173, 33:138, 34:102. Functions of machine elements. Selection of materials. Design of parts for strength with consideration of fatigue and stress concentration. Fits and tolerances.

36:183. MACHINE DESIGN II. 2 *credits.* (2-0)
Prerequisite, 36:182. Dynamic and combined stresses in machine elements.

36:184. HEAT TRANSFER. 2½ *credits.* (2-½)
Prerequisite, 36:181. Fundamentals of heat transfer by conduction, convection and radiation. Properties of fluids and solids affecting heat transfer in engineering structures.

36:187. HEATING AND AIR CONDITIONING. 3 *credits.* (3-0)
Prerequisite, 36:191. Heat transfer, heat losses in buildings. Types of heating equipment and methods used to calculate required capacities. Properties of air, cooling, the cooling load, humidifying, dehumidifying and air circulation. Methods used to design and select equipment to satisfy given requirements.

36:191. THERMODYNAMICS III. 2 *credits.* (1½-½)
Prerequisite, 36:181. Study of thermodynamic cycles.

36:192. HEAT MACHINES. 4 *credits.* (3-1)
Prerequisite, 36:191. Study of actual heat cycles and machines. Performance characteristics of pumps, fans and conduits.

36:196. INSPECTION TRIPS. 1 *credit.* (0-1)
Prerequisite, Senior standing. Trips through power stations and industrial plants in northern Ohio. Written reports.

36:197. MECHANICAL ENGINEERING PROBLEMS. 3 *credits.* (1-2)
Prerequisite, Senior standing. Investigation of a project by individual or small student group. Detailed formal report required.

36:210. ELEMENTS OF VIBRATIONS. 2 *credits.* (2-0)
Prerequisite, 36:183. Vibrations. Preliminary design of an assigned project.

GRADUATE COURSES

36:300. VIBRATION ISOLATION. 3 *credits.* (3-0)
Prerequisites, 17:114 or 17:204. Vibrations and vibration isolation in simple and complex systems of free and forced vibrations with or without damping. Shock loading and its isolation. Design characteristics of isolators with selected applications.

36:301. EXPERIMENTAL STRESS ANALYSIS. 3 *credits.* (3-0)
Prerequisites, 36:183 or 34:106. Experimental methods including use of brittle lacquer, strain gages, photoelasticity and membrane analogy. Advantages and limitations of each method.

36:302. FLUID DYNAMICS. 3 *credits.* (3-0)
Prerequisites, 36:171, 36:181. Fluid flow as affected by thermodynamic considerations. Study of shock and shock areas. Applications of dynamic fluid flow.

36:303. HEAT TRANSFER PROBLEMS. 3 *credits.* (3-0)
Prerequisites, 36:184 and 17:114 or 17:204. Selection of methods and development of techniques in analysis and design problems.

36:304. ENGINEERING ANALYSIS. 3 *credits.* (3-0)
Prerequisite, 17:204. The engineering method as typified by selection, application, execution and comparison of effective solution procedures. Accuracy considerations. Methods of checking. Analysis and interpretation of results. Lectures, discussions, problems.

36:305. JET PROPULSION PRINCIPLES. 3 *credits.* (3-0)
Prerequisites, 36:171, 36:191. Fundamentals of propulsion systems. Analysis of ramjet, turbojet, rockets and thrust augmentation.

AN UPPER COLLEGE:

The College of Education

CHESTER T. MCNERNEY, Ph.D., *Dean*

The University has had an area of instruction devoted to the training of teachers for 40 years. The old Perkins Normal School became the Teachers College of the University in 1921, expanding into the College of Education in 1935.

Throughout its history, this Upper College has maintained a close liaison with the Akron Public Schools. Perkins Normal was founded by the Board of Education; today the Public School administrators cooperate in advisory capacities and in the arrangement of practice teaching schedules for students in the College of Education. Prospective teachers receive valuable experience through actual classroom observation at Spicer Elementary School near the campus.

Approximately two-thirds of Akron Public School teachers are former students at The University of Akron. Close cooperative relationships are also maintained with Summit County schools and others in the surrounding area.

Young men and women who are ambitious to enter any of the numerous fields of teaching will find excellent opportunity to acquire technical training for specific areas, firmly based on a foundation of general knowledge. In the College of Education, as in all other Upper Colleges, two years of courses in the General College are required.

Following this pattern, students in the College of Education develop valuable funds of information related to the arts and sciences. Then they acquire the professional skill of imparting this knowledge. In addition, it is a goal of the College of Education to imbue its students with the ability to inspire intellectual curiosity in their future pupils. Prospective teachers are encouraged to develop an honest enthusiasm for the teaching profession and an awareness of the teacher's social obligations and a commitment to education of excellence in the United States.

In addition to offering degrees in elementary and secondary education areas, the College of Education offers courses in School Administration, Guidance Counseling and School Psychology. All courses of study are designed to comply with State certification requirements. A Bachelor of Arts or Bachelor of Science in Education is the baccalaureate degree offered. Also, the College of Education is accredited to offer a Master of Arts and a Master of Science in Education.

Special courses and related services such as workshops and institutes are regularly arranged for members of the teaching profession and for prospective teachers as well. The College of Education has an enrollment in the Summer Session almost equalling its enrollment for Spring and Fall semesters.

A course of study is available to students in the College of Education who aspire to learn to teach nursing.

REQUIREMENTS FOR ADMISSION

1. Each student must have an average quality point ratio of 2 in all work carried.
2. Each student is required to meet a satisfactory standard with respect to personality. This rating is made by instructors conducting the courses in Education in the General College, by the office of the Director of Student Personnel, by means of a standardized rating, or a combination of all.
3. Each student planning to major in a special field may be required to take an examination by the special department.
4. Each prospective high school teacher must be prepared for certification in two subjects, one major and a minor. Three teaching fields are recommended.
5. Each prospective high school teacher should be prepared to enter Upper College courses in two teaching fields.

STUDENT ADVISERS

Students should confer with the following persons, depending upon the fields in which they expect to teach. Students should also feel free to consult the Dean of the College of Education.

Art ..... MISS DAVIS
Commercial Subjects ..... MR. LEIGH, MRS. TUCKER
Elementary ..... MR. DISTAD, MISS BECKER, MR. BEISEL, MRS. PAINTER, MR. JONES, MISS VERHOEVEN
High School ..... MISS RIEDINGER, MR. DOVERSPIKE, MR. EVANS, MR. JOHNSON, MR. PAINTER, MR. WATT
Home Economics ..... MISS BEAR
Music ..... MR. HUTCHINS
Nursing, Nursing Education ..... MISS TOVEY
Physical Education ..... MR. COCHRANE, MISS RUMAN, MR. MALUKE
Speech ..... MR. SANDEFUR
Graduate ..... DEAN McNERNEY, MISS RIEDINGER, MR. DISTAD

REQUIREMENTS FOR BACHELOR'S DEGREES

		Credits
1. General Education requirements:		
1:1-2	Written English	6
1:5	Written English	3
1:8	Effective Speaking	3
1:11	Numbers Communication	2
1:13-14	Reasoning and Understanding in Science	6
1:15-16	Institutions in the United States	6
1:17-18	Western Cultural Traditions	6
1:21-22	Physical Education	1
30:41	General Psychology	3
	Military Science and Tactics (Men)	6
1:101	Senior Seminar	2
1:103	Eastern Civilizations	3
2. Pre-professional requirements:		
27:57	Human Development and Learning	3
27:56	Education in American Society	2

3. Professional courses:

27:105	Tests and Measurements	2
27:113	Principles and Practices in Secondary Education	3
27:201	Problems in Education	3
27:202	Student Teaching and Seminar	8

4. Major field plus one minor, depending upon field.

Each student preparing for secondary school teaching must have at least two academic teaching fields. One field shall be at least 6 credits more than the minimum required by the State Department of Education, except where the teaching field is 30 credits or more. A student who has a major in any of the special fields Music, Art or Business Education is not required to have a second teaching field. In all of the curricula leading to preparation for elementary school teaching, additional teaching fields or minors are not required.

Students are required at all times to maintain a 2.5 scholastic average in the major field, 2 in the minor field (or fields) and in their over-all total average.

A physical examination is required each year of all students who are preparing for certification as teachers.

The College of Education offers curricula in the following fields: high school teaching in academic subjects, the special fields such as Physical Education, Music, Art, Secretarial Science, Commerce, Speech and Home Economics; Nursery School, Kindergarten-Primary, all grades of the Elementary School and Nursing.

The distribution of subjects required for degrees in certain fields has been set forth in subsequent pages to help students see more clearly the entire course requirements for the degrees. These outlines should, however, not be considered rigid. They are for guidance purposes and should be modified, if necessary, in consultation with the adviser.

The State of Ohio will grant a cadet provisional elementary school certificate upon completion of a two-year program. Such a program is provided by the College of Education.

Any student in the University who is not enrolled in the College of Education and who wishes to teach should register with the Dean of the College of Education at least two years prior to the time he expects to be eligible to teach.

Students who complete a prescribed four-year curriculum of 128 credits and have the required quality of work receive the B.A. in Education or the B.S. in Education degree.

The B.A. degree in Education is granted to those whose major is in one of the academic fields.

The B.S. degree in Education is granted to those whose major is in one of the special fields such as Art, Business Education, Health and Physical Education, or Music. This degree is also granted to those whose major is in the field of elementary education.

The degree B.S. in Nursing is granted to those who complete the regular collegiate program. The B.S. in Nursing degree is granted to registered nurses who return to complete the requirements for the degree.

For information concerning advanced degrees see the section on Graduate Study.

RECOMMENDATIONS FOR CERTIFICATION

Some students who receive degrees from the College of Liberal Arts may also wish to qualify for teaching. They will be recommended for certification after completing their major and minor requirements and the courses listed under Sequence of Pre-Professional and Professional Courses. Such students must be closely advised during the last two years.

Admission to student teaching is based on the 2.5 point average required of all College of Education Students. Satisfactory work must be done in teaching field and in education, particularly student teaching, to warrant recommendation for teaching certificates.

Every teacher in Ohio public schools is required to have a certificate covering the fields in which he is teaching. This certificate is issued by the State Department of Education upon recommendation of the Dean of the College of Education. The student must make out an application form which may be obtained in the office of the Dean. This form should be filled out about one month before the student plans to complete all of his requirements for teaching.

Students are expected to receive their recommendation for certification from the college which granted their degree. Students receiving degrees from other colleges who wish to qualify for certification at The University of Akron will be expected to meet all of the requirements of The University of Akron with an approximate total of one year's work at this institution.

STUDENT TEACHING

Student teaching is done in the public schools under the direction of supervising teachers and a representative of the College of Education faculty. Each student must teach for a semester under regular assignment. When arranging his University schedule for this semester, the student must leave either the morning or afternoon free for student teaching. The student should apply for student teaching early in the semester preceding the one in which he expects to schedule his student teaching.

DUAL CERTIFICATION PROGRAM ELEMENTARY AND SECONDARY

This curriculum prepares teachers for the elementary and secondary schools. Students completing this curriculum will receive the four-year provisional certificate to teach in the secondary school and a certificate which will qualify them to teach in grades 1 through 8 of the elementary school.

First Year

	First Semester	Credits		Second Semester	Credits
1:1	Written English	3	1:2	Written English	3
1:15	Institutions in the U.S.	3	1:16	Institutions in the U.S.	3
1:21	Physical Education	½	1:22	Physical Education	½
	ROTC	1½		ROTC	1½
30:41	General Psychology	3	27:57	Human Development and Learning	3
	Electives	6		Elective (Teaching Fields)	4-5

Second Year

1:5	Written English or/		1:5	Written English or/	
1:8	Effective Speaking	3	1:8	Effective Speaking	3
1:11	Numbers Communication	2	1:11	Numbers Communication	2
1:13	Reasoning and Understanding Science	3	1:14	Reasoning and Understanding Science	3
	ROTC	1½		ROTC	1½
27:41	Handicrafts	2	28:71	Principles of Geography	3
27:56	Education in American Society	2	27:86	Children's Literature	3
12:41	American History or/			Elective (major)	5-6
21:41	American Government	3			

Third Year

First Semester		Credits	Second Semester		Credits
1:17	Western Cultural Traditions	3	1:18	Western Cultural Traditions	3
	Geography	3	27:138	Teaching of Social Studies	2
27:135	Teaching of Reading	3	27:133	Science for Elementary Grades	3
27:137	Teaching Language Arts	3	27:136	Arithmetic for Elementary Grades	3
27:105	Tests and Measurements	2	27:113	Principles and Practices in Secondary Education	3
18:62	Elementary School Literature and Appreciation	2		Elective	3

Fourth Year

1:101	Senior Seminar	2 or	1:101	Senior Seminar	2
1:103	Eastern Civilizations	3 or	1:103	Eastern Civilizations	3
27:202	Student Teaching and Seminar	10	29:138	Health and Phys. Ed. Activities	3
27:201	Problems in Education	3		Electives	9
	Electives	5		Total to make 128	

ELEMENTARY EDUCATION

The Kindergarten-Primary program is for students preparing to teach in the kindergarten through the third grade. The Elementary program is for those preparing to teach in grades four to eight inclusive.

KINDERGARTEN–PRIMARY AND ELEMENTARY

First Year

First Semester		Credits	Second Semester		Credits
1:1	Written English	3	1:2	Written English	3
1:15	Institutions in the U.S.	3	1:16	Institutions in the U.S.	3
1:21	Physical Education	½	1:22	Physical Education	½
	ROTC	1½		ROTC	1½
30:41	General Psychology	3	27:57	Human Development and Learning	3
2:21	Design	2			
18:23	Fundamentals of Music	2	27:62	Elem. School Music Liter. and Apprec.	2
				Elective	3

Second Year

1:5	Written English or/		1:5	Written English or/	
1:8	Effective Speaking	3	1:8	Effective Speaking	3
1:11	Numbers Communication	2	1:11	Numbers Communication	2
1:13	Reasoning and Understanding Science	3	1:14	Reasoning and Understanding Science	3
	ROTC	1½		ROTC	1½
27:56	Education in American Society	2	28:71	Principles of Geography	3
	Elective	3	27:86	Children's Literature	3
				Elective	5

Third Year

1:17	Western Cultural Trad.	3	1:18	Western Cultural Trad.	3
	Geography	3	27:138	Tchg. of Soc. Stud. (Elem.)	2
27:135	Tchg. of Reading	3		or	
27:137	Tchg. Language Arts (Elem.)	3	27:132	Early Elem. Educ. (Kind.-Pr.)	3
	or		27:133	Science for Elem. Grades	3
27:131	Early Elem. Educ. (Kind.-Pr.)	3	27:105	Tests & Measurements	2
27:41	Handicrafts	2	27:136	Arith. in Elem. Grades	3
			27:121	Art for the Grades	2
			27:121	Primary Elem. Music Ed.	2

Fourth Year

1:101	Senior Seminar	2	1:101	Senior Seminar	2
27:202	Student Teaching and Seminar	8	29:138	Health & Phys. Education Activities	3
27:201	Problems in Education	3		Electives	5-10
21:41	American Government or			Total to make 128	
12:41	American History	3			

Any elementary certificate will be validated for kindergarten teaching provided the applicant submits evidence of completion of 6 semester hours of credit in kindergarten methods and materials.

By taking the following courses, students in the Kindergarten-Primary program may also receive University recommendations as Director or Teacher in Nursery Schools:

		Credits			Credits
22:41	General Sociology	3	13:65	Child Development	3
22:117	Child Welfare	3	29:111	Red Cross First Aid	1
13:45-46	General Foods	6			
27:202	Student Teaching (in Nursery School) (after 4 credits in Kindergarten-Primary program)	4			

TWO-YEAR ELEMENTARY PROGRAM

Acute shortage of teachers in the elementary school has resulted in the establishment of a two-year program. Students who complete this program may obtain a cadet provisional certificate which is valid for four years. Before the expiration of this period, students must complete at least 24 semester hours of additional credit toward the degree in order to keep their certificates in force.

TWO-YEAR ELEMENTARY PROGRAM LEADING TO A CADET CERTIFICATE

First Year

	First Semester	Credits		Second Semester	Credits
1:1	Written English	3	1:2	Written English	3
1:15	Institutions in the U.S.	3	1:15	Institutions in the U.S.	3
1:21	Physical Education	½	1:22	Physical Education	½
30:41	General Psychology	3	27:57	Human Development and Learning	3
18:23	Fund. of Music	2	27:41	Handicrafts	2
	ROTC	1½	27:62	Elementary School Music Liter. & Apprec.	2
				ROTC	1½

Summer Session

27:135	Teaching of Reading	3
27:86	Children's Literature	3

Second Year

1:5 1:8	Written English or/ Effective Speaking	3	1:5 1:8	Written English or/ Effective Speaking	3
1:11	Numbers Communication	2	28:71	Principles of Geography	3
27:136	Arithmetic in Elementary Grades	3	27:133	Science Elementary Grades	3
29:138	Health & P.E. Act.	3	27:202	Student Teaching and Seminar	8
21:41	American Government or	3		ROTC	1½
12:41	American History	3		Total to make at least 67 (Women) (For men, including ROTC, 73)	
	ROTC	1½			

Either
27:131 Early Elem. Educ. 3
and
27:132 Early Elem. Educ. 3
Or
27:137 Teaching Lang. Arts 3
and
27:138 Teaching of Soc. Stud. 2

SECONDARY EDUCATION

The secondary program is for students preparing to teach in junior and senior high schools. The specific requirements for the various teaching fields will be outlined for the student by his College of Education adviser or by the Dean of the College.

First Year

	First Semester	Credits		Second Semester	Credits
1:1	Written English	3	1:2	Written English	3
1:15	Institutions in the U.S.	3	1:16	Institutions in the U.S.	3
1:21	Physical Education	½	1:22	Physical Education	½
	ROTC	1½		ROTC	1½
30:41	General Psychology	3	27:57	Human Development and Learning	3
	Electives	6		Elective (Teaching Fields)	4-5

Second Year

1:5	Written English or/		1:5	Written English or/	
1:8	Effective Speaking	3	1:8	Effective Speaking	3
1:11	Numbers Communication	2	1:11	Numbers Communication	2
1:13	Reasoning and Understanding Science	3	1:14	Reasoning and Understanding Science	3
	ROTC	1½		ROTC	1½
27:56	Education in American Society	2		Elective (major)	5-6
	Electives	2			

Third Year

1:17	Western Cultural Traditions	3	1:18	Western Cultural Traditions	3
	Geography	3	27:113	Principles and Practices in Secondary Education	3
27:105	Tests and Measurements	2		Electives (Teaching Field)	11
	Electives (Teaching Field)	11			

Fourth Year

1:101	Senior Seminar	2 or	1:101	Senior Seminar	2
1:103	Eastern Civilizations	3 or	1:103	Eastern Civilizations	3
27:202	Student Teaching and Seminar	8		Electives (Teaching Field)	12
27:201	Problems in Education	3		Total to make 128	
	Electives (Teaching Field)	5			

CONVERSION FROM SECONDARY TO ELEMENTARY CERTIFICATE

The holder of a Provisional, Professional, or Permanent High School or Special Certificate may obtain a certificate valid for elementary teaching upon submitting evidence of the satisfactory completion of the following 12 credits:

27:251 Elementary Education 3
27:135 Teaching of Reading 3
27:136 Arithmetic in Elementary Grades 3
27:57 Human Development and Learning 3

Such certificate shall be designated as a "Retraining" certificate and may be renewed only upon evidence of the completion of 12 credits of additional credit applicable to a degree in elementary education.

CERTIFICATION OF NON-PROFESSIONAL DEGREE HOLDERS FOR ELEMENTARY SCHOOL TEACHING IN OHIO

The State Department of Education will, upon the request of the employing city, county, or exempted village superintendent, and the recommendation of the institution in which the credit is completed, grant a temporary elementary certificate to the holder of an appropriate bachelor's degree, who submits evidence of the completion of the above 12 credits of additional preparation.

SECONDARY AND SPECIAL

Each student preparing for secondary school teaching must have at least two academic teaching fields. One field shall be at least 6 credits more than the minimum required by the State Department of Education, except where the teaching field is 30 credits or more.

For selection of required courses for a teaching field, consult the head of department, who will appoint an adviser.

Each student is required to complete 128 credits with a minimum of a 2-point average. At the time of entering upon student teaching, the point ratio must be 2.5 in the major field and 2 in the minors.

STATEMENT OF NUMBER OF HOURS REQUIRED FOR CERTIFICATION IN VARIOUS TEACHING FIELDS

As Specified by the State Department of Education
In High School and Special Areas

Field	*Number of Credits* High School Tchg. Fields*	Special Tchg. Fields†
Art	24	50
Business Education	45	
Bookkeeping	9	
‡Bookkeeping—Basic Business	20	
Salesmanship—Merchandising	15	
‡Stenography—Typing	20	
Typing	5	
English	24	
Health Education	24	
Health Education and Physical Education	24	40
History and Government	27	
Home Economics	30	
Latin	15	
Library Science	16	

* High School teaching fields entitle the holder of the certificate to teach the subjects in all grades 7-12 in a secondary school and in grades 7 and 8 of an elementary school if the work is departmentalized.
† A special teaching field entitles the holder of the certificate to teach that subject in any grade of the public schools.
‡ If used as major 30 credits will be required.

§Modern Languages	20	
Mathematics	18	
Music	24	50
Science		
Biological Science	15	
Earth Science	15	
General Science	21	
Physical Science	21	
Science Comprehensive	45	
Social Studies Comprehensive	45	
Speech	18	40

ART EDUCATION

First Year

	First Semester	Credits		Second Semester	Credits
1:1	Written English	3	1:2	Written English	3
1:21	Physical Education	½	1:22	Physical Education	½
1:15	Institutions in U.S.	3	1:16	Institutions in U.S.	3
	ROTC	1½		ROTC	1½
30:41	General Psychology	3	27:57	Human Development and Learning	3
2:21	Design	2			
2:29	Art Appreciation	2	2:30	Art Appreciation	2
			2:45	Drawing	2

Second Year

1:5	Written English or/		1:5	Written English or/	
1:8	Effective Speaking	3	1:8	Effective Speaking	3
1:17	Western Cultural Traditions	3	1:11	Numbers Communications	2
1:13	Reasoning and Understanding Science	3	1:18	Western Cultural Traditions	3
	ROTC	1½	1:14	Reasoning and Understanding Science	3
27:56	Education in American History	2		ROTC	1½
2:59	Ceramics	2	2:57	Design in Crafts	2
2:69	Life Drawing	2	2:60	Ceramics	2
33:21	Engineering Graphics	3	2:90	Advanced Drawing	2

Third and Fourth Years

1:15	Institutions in the U.S.	3	1:16	Institutions in the U.S.	3
1:101	Senior Seminar	2	27:121	Art for the Grades	2
2:115	Painting	2	2:116	Painting	2
2:179	Book Illustration	2	2:105	Graphic Arts	2
2:151	Costume or		2:132	Commercial Art	2
2:171	Interior Design	3	2:152	Costume Design or	
2:200	History of Art	3	2:172	Interior Design	3
2:209	Advanced Life Drawing	2	2:201	History of Art	3
2:131	Commercial Art	2	2:102	Advanced Design in Crafts	2
27:105	Tests and Measurements	2	27:191	Methods of Teaching Art	9
27:202	Student Teaching and Seminar	8	2:106	Weaving	2
	Electives: Women	6	27:201	Problems in Education	3
	Men	3		Electives: Women	6
				Men	3

§ The two units of high school language which are required as prerequisites for college study in that language may be satisfied by taking the college 8 credit beginning course. This means that in order to place a language on a certificate as a teaching field, 28 credits would be required if the study of the language is begun in college. If a second language is chosen, only 20 credits will be required providing the student possesses the prerequisite background to begin the study of this second language.

Since many courses are given in alternate years, the exact order of courses in the last two years would vary.

Suggested courses for minor in Art. Minimum requirements in teaching of Art for the Provisional High School Certificate.

		Credits			Credits
2:21	Design	2	2:69	Life Drawing	2
2:45	Drawing	2	2:90	Advanced Drawing	2
2:57	Design in Crafts	2	2:115-116	Painting	4
2:59	Ceramics	2	2:200-201-202	History of Art	6

BUSINESS EDUCATION

First Year

	First Semester	Credits		Second Semester	Credits
1:1	Written English	3	1:2	Written English	3
1:15	Institutions in the U.S.	3	1:11	Numbers Communication	2
1:21	Physical Education	½	1:16	Institutions in the U.S.	3
43:23	Intro. to Office Prob.	3	1:22	Physical Education	½
43:53*	Typewriting Principles	3	43:54	Typewriting Projects	3
27:56	Educ. in Amer. Soc.	2	30:41	General Psychology	3
	ROTC	1½		ROTC	1½

Second Year

1:5	Written English	3	1:8	Effective Speaking	3
1:13	Reasoning & Under. Sci.	3	1:14	Reasoning & Under. Sci.	3
43:61*	Shorthand Principles	4	40:61	Bus. Org. and Mgt.	3
39:21*	Accounting	3	43:62*	Shorthand & Trans.	3
27:57	Human Dev. & Learning	3	39:22	Accounting	3
	ROTC	1½	43:25	Mach. & Sl. Rule Cal.	1
				ROTC	1½

Third Year

1:17	West. Cultural Trad.	3	1:18	West. Cultural Trad.	3
6:	Economics	3	43:55	Adv. Typewriting & Sec. Machines	3
40:141	Business Law	3	43:64	Adv. Dict. & Trans.	4
43:63	Adv. Shorthand & Trans.	4	27:173	Meth. in Typewriting	1
40:83	Marketing	3	27:174	Meth. in Shorthand & Trans.	1
			27:175	Meth. in Bookkeeping	1
			27:113	Prin. & Pract. in Sec. Education	3

Fourth Year

1:101	Senior Seminar Course	2	1:103	Eastern Civilizations	3
40:181	Prin. of Salesmanship	3	28:54	Economic Geography	3
43:93	Bus. Communications	2	27:201	Prin. of Education	3
27:202	Student Teach. & Seminar	8	27:105	Tests & Measurements	2

Electives to total at least 128 hours with at least 45 in the major.

* Students with previous training may be excused by examination.

HOME ECONOMICS EDUCATION

First Year

First Semester		Credits		Second Semester	Credits
1:1	Written English	3	1:2	Written English	3
1:21	Physical Education	½	1:16	Institutions in the U.S.	3
1:15	Institutions in the U.S.	3	1:22	Physical Education	½
30:41	General Psychology	3	27:57	Human Development And Learning	3
13:21	Textiles	3	13:22 or 23	Clothing	3
13:53	Home Econ. Orientation	1			

Second Year

1:5	Written English or/		1:5	Written English or/	
1:8	Effective Speaking	3	1:8	Effective Speaking	3
1:11	Numbers Communication	or	1:11	Numbers Communication	2
1:13	Reasoning and Understanding Science	3	1:13	Reasoning and Understanding Science	3
13:45	General Foods	3	13:46	General Foods	3
	Elective	4	13:58	Household Furnishings	3
27:56	Education in American Society	2			

Third Year

1:17	Western Cultural Traditions	2	1:18	Western Cultural Traditions	3
13:105	Tailoring	3	13:106	Advanced Clothing	3
13:62	Home Management	3	13:65	Child Development	3
27:105	Tests & Measurements	2	27:151	Home Economics Education	3
13:115	Experimental Foods	3	27:113	Principles and Practices in Secondary Education	3
	Elective	6		Elective	3

Fourth Year

1:101	Senior Seminar	2	or	1:101	Senior Seminar	2
13:119	Nutrition	3		27:202	Student Teaching and Seminar	8
	Electives	8		27:201	Problems in Education	3

MUSIC EDUCATION

First Year

	First Semester	Credits		Second Semester	Credits
1:1	Written English	3	1:2	Written English	3
1:21	Physical Education	½	1:22	Physical Education	½
1:15	Institutions in the U.S.	3	1:16	Institutions in the U.S.	3
	ROTC	1½		ROTC	1½
30:41	General Psychology	3	27:57	Human Development And Learning	3
18:43	Theory I	3	18:44	Theory II	3
	Applied Music	2 or 4		Applied Music	2 or 4
	Music Organization	1		Music Organization	1
18:30	Student Recital	1	18:22	Art of Music	2
			18:30	Student Recital	1

Second Year

1:5	Written English or/		1:5	Written English or/	
1:8	Effective Speaking	3	1:8	Effective Speaking	3
1:11	Numbers Communication	2 or	1:11	Numbers Communication	2
1:13	Reasoning and Understanding Science	3	1:13	Reasoning and Understanding Science	3
	ROTC	1½		ROTC	1½
18:103	Theory III	3	18:104	Theory IV	3
27:56	Education in American Society	2	18:62	Elem. Music Lit. & App.	2
18:55	String Class	2	18:56	String Class	2
	Applied Music	2 or 4		Applied Music	2 or 4
	Music Organization	1		Music Organization	1
18:30	Student Recital	1	18:30	Student Recital	1

Third Year

1:17	Western Cultural Traditions	3	1:18	Western Cultural Traditions	3
18:121	Primary Elementary Music Education	2	18:123	Sec. Music Educ.	2
18:101	History of Music	2	18:102	History of Music	2
18:50	Voice Class	2	18:110	Conducting	2
	Applied Music	2 or 4		Applied Music	2 or 4
	Music Organization	1		Music Organization	1
18:130	Student Recital	1	18:130	Student Recital	1
18:57	Woodwind Class	2	18:58	Brass & Percussion Cl.	2

Fourth Year

1:101	Senior Seminar	2	1:101	Senior Seminar	2
18:114	Orchestration	2	18:111	Composition	2
27:202	Student Teaching & Seminar	8	27:201	Problems in Education	3
	Applied Music	2 or 4		Applied Music	2 or 4
	Music Organization	1		Music Organization	1
18:130	Student Recital	1	18:130	Student Recital	1
				Total to make 128.	

Suggestion: One of the academic courses in the curriculum for the second year may be deferred until the third year.

Strongly Recommended Electives for the fourth year include:

18:116 Advanced Conducting
18:201 Introduction to Musicology
18:202 Bibliography and Research

These courses are essential to all students who contemplate eventual graduate study.

STATE REQUIREMENTS FOR A MINOR IN MUSIC

18:23	Fundamentals of Music
18:22	Art of Music
18:43	Theory I
18:44	Theory II
18:101 and 18:102	History of Music
18:123	Music Education
18:110	Conducting
	Applied Music (at least 4 credits)

NOTE: While a minor teaching field in music does exist in the certification law, it should be noted that virtually no school systems now employ persons with minors in music, for the purpose of teaching music. A minor in music may be taken by interested students as a cultural course.

MUSIC ORGANIZATIONS

The University Orchestra, University Band and University Singers are open to all qualified students, with or without college credit. There is no fee for participation.

MUSIC DEPARTMENT REQUIREMENTS

1. To major in Music Education, a student should have reached a satisfactory level of achievement in voice or some instrument before entrance.
2. Participation in one of the Music Organizations is required each semester.
3. Attendance at Student Recital is required each semester.
4. A jury examination in "functional piano" is a requirement for graduation.
5. Basic Music Department requirements for graduation, conforming to the standards established by the National Association of Schools of Music, include 42 hours in general culture; 18 in basic music courses; 42 credits in musical performance, including Applied Music, Conducting, Voice, String, Brass and Woodwind Classes, and Student Recital; and 26 in Professional Education.
6. Applied Music study must include piano until passage of the examination in functional piano; it should include at least one year, and preferably two years of voice; and may include any other instruments.

NOTE: It is possible for qualified students to combine the curriculum in Music Education with the Bachelor of Music curriculum of the College of Liberal Arts, in five years of study and thus to prepare both for teaching and for graduate study of music.

SPEECH

First Year

	First Semester	Credits		Second Semester	Credits
1:1	Written English	3	1:2	Written English	3
1:15	Institutions in the U.S.	3	1:22	Physical Education	½
1:21	Physical Education	½	1:16	Institutions in the U.S.	3
	ROTC	1½	27:57	Human Development and Learning	3
30:41	General Psychology	3		ROTC	1½
	Elective	6-7		Elective	5-6

Second Year

1:11	Numbers Communication	2	1:5	Written English or/	
1:13	Reasoning And Understanding Science	3	1:8	Effective Speaking	3
1:5	Written English or/		24:51	Reading Aloud*	3
1:8	Effective Speaking	3 or	1:	Elective (Speech)	3
	ROTC	1½	1:11	Numbers Communication	2
27:56	Education in American Society	2	1:14	Reasoning And Understanding Science	3
				ROTC	1½
				Elective (Speech)	8-9

Third Year

1:17	Western Cultural Traditions	3	1:18	Western Cultural Traditions	3
24:161	Play Production*	3	24:272	Speech Correction	3
24:271	Speech Correction*	3	24:274	Clinical Practice	1
24:273	Clinical Practice*	1	24:291	or 292 Speech Criticism	2
24:290	Dev. of Rhet. Theory	2	27:105	Tests & Measurements	2
27:113	Principles and Practices in Secondary Education	3		Elective (teaching field)	5
	Elective (teaching field)	2			

Fourth Year

1:101	Senior Seminar	2	or 1:101	Senior Seminar	2
27:202	Student Teaching and Seminar	8	27:201	Problems in Education	3
	Speech	3		Speech	3
	Elective (teaching field)	3		Elective (teaching field)	10

* Speech may be used in the B.A. in Education program, either as a 19-credit teaching field or as a major of 24 credits for graduation purposes. The courses marked with a single asterisk are required for the 19-credit teaching field. Additional courses to make the 24-credit field may be selected upon consultation with the adviser.

HEALTH AND PHYSICAL EDUCATION

Students preparing to teach Health Education and Physical Education have a choice of four curricula. Two of them lead to certification for high school teaching and two for special certification which entitles the teacher to teach in all of the grades, kindergarten through twelfth.

Students will be required to meet the general requirements for promotion to the College of Education and certain courses which will be required in the Freshman and Sophomore years.

REQUIREMENTS FOR HEALTH AND PHYSICAL EDUCATION

MEN

First Year

	First Semester	Credits		Second Semester	Credits
1:1	Written English	3	1:2	Written English	3
1:15	Institutions in the U.S.	3	1:16	Institutions in the U.S.	3
	ROTC	1½		ROTC	1½
29:45	Physical Education**	2	27:57	Human Development And Learning	3
30:41	General Psychology	3	29:46	Physical Education**	2
	Electives	2-3		Electives	2-3

Second Year

1:5	Written English or/		1:5	Written English or/	
1:8	Effective Speaking	3	1:8	Effective Speaking	3
1:11	Numbers Communication	or	1:11	Numbers Communication	2
1:13	Reasoning And Understanding Science	3	1:14	Reasoning And Understanding Science	3
	ROTC	1½		ROTC	1½
29:93	Theory & Practice	2	29:94	Theory & Practice	2
27:56	Education in American Society	2	29:98	Physiology**	3
29:97	Anatomy**	3	29:70	Org. & Ad. of Recreation	2
				Electives (teaching field)	1-2

Third Year

1:17	Western Cultural Traditions	3	1:18	Western Cultural Traditions	3
29:105	Theory and Practice**	2	29:106	Theory and Practice**	2
27:113	Principles and Practices in Secondary Education*	3	29:114	Theory & Practice of Swimming	2
29:121	Org. & Adm. of Phys. Ed.**	2	27:105	Tests & Measurements	2
29:111	First Aid	1	29:122	Org. & Adm. of Phys. Ed.**	2
29:112	Massage	1	27:133	Meth. & Materials in Teaching Health Education**	3
29:115	Adaptive Physical Education	2	29:134	Games & Rhythms for Elementary Grades**	2
29:125	Org. & Adm. of School Health**	3			

Fourth Year

1:101	Senior Seminar	2	1:101	Senior Seminar	2
27:202	Student Teaching and Seminar	8	27:201	Problems in Education	3-7
	Electives	4	29:119	Community Hygiene**	3
			29:120	Camping & Outdoor Education	2
				Electives	6

* Required if student wishes to teach the academic minor as well as in the major field.
** Required Physical Education courses for 24-credit teaching field.

WOMEN

First Year

	First Semester	Credits			Second Semester	Credits
1:1	Written English	3		1:2	Written English	3
1:15	Institutions in the U.S.	3		1:16	Institutions in the U.S.	3
29:45	Physical Education*	2		29:46	Physical Education*	2
30:41	General Psychology	3		27:57	Human Development And Learning	3
	Electives	3-4			Electives	3-4

Second Year

1:5	Written English or/			1:5	Written English or/	
1:8	Effective Speaking	3		1:8	Effective Speaking	3
1:11	Numbers Communication	2	or	1:11	Numbers Communication	2
1:13	Reasoning And Understanding Science	3		1:14	Reasoning And Understanding Science	3
29:97	Anatomy*	3		29:98	Physiology*	3
29:95	Theory & Practice (Team spts.)*	2		29:96	Theory & Practice (Ind. Spts.)*	2
27:56	Education in American Society	2		29:70	Org. & Adm. of Recreation	2
	Electives	2-3			Electives	2-3

Third Year

1:17	Western Cultural Traditions	3		1:18	Western Cultural Traditions	3
29:115	Adaptive Physical Education	2		27:105	Tests & Measurements	2
29:111	Red Cross First Aid	1		29:122	Org. & Adm. of Phys. Educ.*	2
27:113	Principles and Practices in Secondary Education**	3		29:134	Games & Rhythms for Elementary Grades*	2
29:121	Org. & Adm. of Phys. Educ.*	2		29:103	Theory & Practice	2
29:125	Org. & Adm. School Health**	3		29:133	Meth. & Materials in Tchg. Health Education*	3
29:108	Theory & Practice of Dance	2				
	Electives	3-4			Electives	3-4

Fourth Year

1:101	Senior Seminar	2	or	1:101	Senior Seminar	2
29:114	Theory & Practice of Swimming	2		27:202	Student Teaching and Seminar	8
	Electives	7-8		27:201	Problems in Education	3
				29:119	Community Hygiene**	3
				29:120	Camping & Outdoor Education	2

PSYCHOLOGY

Students in the Buchtel College of Liberal Arts or the College of Education may complete a major or minor in the field of Psychology. This field may be used in the College of Education in meeting specific requirements or for elective work and as prerequisites for graduate study in the field of certification as a School Psychologist. Psychology, however, is not recognized as a teaching field by the State Department of Education. Prospective teachers will be encouraged to take several courses in this field.

* Required Physical Education courses for 24-credit teaching field.
** Required if student wishes to teach the academic minor as well as in the major field.

NURSING EDUCATION

The University of Akron began a cooperative program with the hospitals of the city of Akron in 1943. Under this program the University provided a preclinical curriculum. Later on it was decided to provide students with an opportunity to become nurses and obtain a degree under the auspices of the University. Provision was also made for the degree B.S. in Nursing Education for registered nurses who wished to continue and complete the requirements for a Bachelor's degree. The hospital schools of nursing affiliated with the University in the preclinical program are Akron City, Akron General and St. Thomas in Akron and Massillon City Hospital in Massillon.

BASIC NURSING PROGRAM LEADING TO A DIPLOMA IN NURSING

Student nurses are regularly enrolled in the University, with college credit for these two semesters.

Applications for this program are handled through the hospital schools of nursing.

The following courses constitute two semesters work on campus:

	First Semester	Credits		Second Semester	Credits
3:47	Anatomy & Physiology	3	3:48	Anatomy & Physiology	3
5:25	Chemistry	3	30:21	Psychology or 22:23 Sociology	3
30:21	Psychology or 22:23 Sociology	3	13:43	Foods or 3:33 Microbiology	3
13:43	Foods or 3:33 Microbiology	3	1:1	Written English or	3
31:59	History of Nursing or	2	31:59	History of Nursing	2
1:1	Written English	3			
		14-15			11-12

LEADING TO B.S. DEGREE IN NURSING

This five-year basic program permits candidates to be admitted directly to the University. The first two years and second semester of the fifth year are spent on the campus. The remaining time is spent in hospitals and allied health centers. This program includes general cultural courses and courses directly related to nursing. Clinical experience in medical, surgical, pediatric, communicable disease, tuberculosis, psychiatric, and public health nursing is provided through affiliations at various hospitals and health centers. No new students will be admitted to this program.

ADVANCED PROFESSIONAL PROGRAM FOR REGISTERED NURSES

Advanced study programs are available for registered nurses leading to the degree of Bachelor of Science in Nursing. The professional objectives of this program are to supplement for the registered nurse of the three-year program in basic nursing the academic and professional courses required for the Bachelor of Science in Nursing degree and to prepare her to assume responsibility in the administration of patient care and assist in clinical instruction. Special programs may be arranged for registered nurses interested in public school teaching certificates.

Candidates must present evidence of graduation from an approved school of nursing. They are required to complete at least 128 credits which include 18 credits in professional nursing courses. Required courses include:

GENERAL COURSES		Credits
1:1	through 1:101 Courses	36
27:51	Human Development and Learning	3
30:115	or 116 Psychology	3
27:105	Test & Measurements	2
	Chemistry, Physics, Bacteriology or Physiology	6-8

PROFESSIONAL COURSES		Credits
31:100	Nursing Trends	3
31:105	Prin. & Meth. of Teaching Nursing	3
31:106	Ward Mgt. & Tchg.	3
31:113	Public Health Nursing Practice	3
31:114	Comprehensive Nursing Care	3
31:115	Comprehensive Nursing Practice	3

Registered nurses are allowed some credit for their professional education in nursing. This is dependent upon the quality and quantity of work completed in various subjects. The number of electives will depend on the credit allowed the individual student for her basic professional program.

NURSING ADVISORY COMMITTEE

Mrs. Julia B. Fishbaugh, R.N., M.A.Ed., Director Akron General Hospital School of Nursing; Miss Mary J. Knapp, R.N., B.S.N., Executive Director, Visiting Nurse Service of Summit County; Miss Ella Mae Murdie, R.N., M.S., Director, Akron City Hospital School of Nursing; Sister Mary Esther, R.N., B.S.N., Director, St. Thomas Hospital School of Nursing.

COLLEGE OF EDUCATION

ART EDUCATION

27:121. ART FOR THE GRADES. *Either semester.* 2 *credits.*

Prerequisite, 21. Art requirements in elementary grades; laboratory work to give teachers a knowledge of materials and mediums and skill in handling them.

27:191. METHODS IN TEACHING ART. *First semester.* 3 *credits.*

Prerequisite, completion of the required course for art teachers and quality point ratio of 2 in the field. Study of trends and procedure in teaching and in supervision; relation of art to the home, school and community; observation in selected schools is required.

BUSINESS EDUCATION

27:173. METHODS IN TYPEWRITING. 1 *credit.*

Prerequisite, Typewriting 54 and a quality point ratio of 2 in the field. Methods of presentation in typewriting. Demonstrations and observations required. A theory test in the field must be passed before credit will be given for the course.

27:174. METHODS IN SHORTHAND AND TRANSCRIPTION. 1 *credit.*

Prerequisite, Shorthand 62 and a quality point ratio of 2 in the field. Methods of presentation in shorthand and transcription. Demonstrations and observations required. A theory test in the field must be passed before credit will be given for the course.

27:175. METHODS IN BOOKKEEPING. 1 *credit.*

Prerequisite, Accounting 22 or 42 and a quality point ratio of 2 in the field. Methods of presentation in bookkeeping, business cycle, practice sets and lesson plans. A theory test in the field must be passed before credit will be given for the course.

GENERAL COLLEGE

27:41. HANDICRAFTS IN ELEMENTARY SCHOOL. 2 *credits.*

A broad range of experiences through the manipulation of various craft mediums which will enrich the curriculum of the elementary school.

27:56. EDUCATION IN AMERICAN SOCIETY. *Either semester.* 2 *credits.*

Nature and purposes of education in American society including description of its distinctive features and analysis of factors determining its character.

27:57. HUMAN DEVELOPMENT AND LEARNING. 3 *credits.*

A study of the principles underlying the intellectual, emotional, social and physical growth and development of the human organism; and of the learning process with its implications for the instructional procedures.

27:86. CHILDREN'S LITERATURE. 3 *credits.*

A survey of materials for children in prose, poetry and illustrations from early historical periods to modern types; criteria of selection and methods of presentation are critically examined.

UPPER COLLEGE

27:105. EDUCATIONAL TESTS AND MEASUREMENTS. *Either semester.* 2 *credits.*

Prerequisite, 57. Various methods and devices employed in comprehensive and continuous evaluation. Some attention given to treatment and interpretation of scores.

27:113. PRINCIPLES AND PRACTICES IN SECONDARY EDUCATION. *Either semester.* 3 *credits.*

Prerequisite, 27:57. Four units of study carried on concurrently: (1) basic principles of teaching; (2) a working knowledge of methodology in a specific field; (3) observation and participation; (4) preparation of teaching materials.

27:131. EARLY ELEMENTARY EDUCATION. *First semester.* 3 *credits.*

Prerequisite, 27:57. Aims to develop a forward-looking viewpoint in the education of young children. Materials, techniques and practices are examined which furnish opportunities for cooperative enterprise and serve as a background for democratic living.

27:132. EARLY ELEMENTARY EDUCATION. *Second semester.* 3 *credits.*

Prerequisite, Education 131. Continuation of course 131 with emphasis on teaching of language arts, science and social studies at the primary level.

27:133. SCIENCE FOR THE ELEMENTARY GRADES. 3 *credits.*

Prerequisite, 27:57. For the prospective teacher of science in the elementary school; development of a point of view toward science teaching and a study of methods of presenting science material.

27:135. THE TEACHING OF READING. *First semester.* 3 *credits.*

Prerequisite, 27:57. Reading program for the elementary school, together with modern methods of teaching reading at the various levels.

27:136. ARITHMETIC IN THE ELEMENTARY GRADES. 3 *credits.*

Prerequisite, 27:57. Trends in arithmetic instruction in elementary school. Procedures for the development of mathematical concepts and skills.

27:137. TEACHING THE LANGUAGE ARTS. 3 *credits.*

Prerequisite, 27:57. Materials, grade allocations and methods for teaching oral and written expression, spelling and handwriting in elementary grades.

27:138. THE TEACHING OF SOCIAL STUDIES. 2 *credits.*

Prerequisite, 27:57. Social studies program in the elementary school and the varied means of implementing the program.

27:140. SEMINAR IN TEACHING MODERN FOREIGN LANGUAGES. 3 *credits.*

Prerequisites, Psychology 41; Education 57-56. An elective course for those students who major in modern foreign languages.

27:201. PROBLEMS IN EDUCATION. *Either semester.* 3 *credits.*

Prerequisite, Senior status in Education. To assist the Senior student in developing a personal philosophy of education upon which he will base his professional practices; to deepen personal commitment to teaching as a profession.

27:202. STUDENT TEACHING AND SEMINAR. 6-8 *credits.*

(Fall and Spring Semesters—8 credits. Summer Sessions—6 credits.)

Prerequisite, Education 27:113 or equivalent. Student teaching under supervision of supervising teacher and University supervisor; includes 2-hour seminar per week or equivalent.

27:204. PRACTICUM IN READING IMPROVEMENT. 2 *credits.*

Prerequisite, Teaching of Reading 135. Reviews and applies the principles of teaching of reading to individuals who need diagnostic and remedial programs.

27:234. AUDIO-VISUAL EDUCATION. 2 *credits.*

To acquaint teachers of all levels with the wide variety of visual and auditory aids available and the techniques for their respective use. Learning to operate projectors and sound reproducers, to locate materials available and to construct materials for one's own specific use.

27:235. WORKSHOP. *(Elementary or Secondary School).* 2 *or* 3 *credits.*

Opportunity for individual work under staff guidance on curriculum problems; utilization of community resources; planning of curriculum units.

27:251. ELEMENTARY EDUCATION. *Evening and Summer sessions.* 3 *credits.*

Evaluation of recent trends and practices in elementary education. Language Arts and Arithmetic will be emphasized.

Graduate Courses in Education Leading to a Master's Degree

Prerequisite to graduate courses in Education: At least 12 credits of undergraduate work in Education or the equivalent, the Bachelor's degree or equivalent and the provisional certificate for teaching.

27:300. PHILOSOPHIES OF EDUCATION. 3 *credits.*

A survey and analysis of educational ideas and their relationship to society throughout the history of Western Culture, with some emphasis on contemporary philosophies.

27:301. DEVELOPMENTAL PROCEDURES IN LEARNING. 2 *credits.*

Basic concepts in the areas of human development and learning and their practical application by the classroom teacher in working with individuals and groups.

27:302. PRINCIPLES OF GUIDANCE. 2 *credits.*

Background and development of guidance services, basic concepts related to pupil personnel work, current guidance programs in elementary and secondary schools and present status and trends in guidance services.

27:303. TECHNIQUES OF RESEARCH. 2 *credits.*

Research methods and techniques commonly used in education and psychology; preparation of research reports.

27:304. TECHNIQUES OF GUIDANCE. 2 *credits.*

Study of the following guidance tools and techniques and their application in guidance programs; objective and subjective measurement devices; cumulative record systems; case study and case conference; the interview.

27:309. VOCATIONAL GUIDANCE AND OCCUPATIONAL INFORMATION. 2 *credits.*

Sources, organization and uses of occupational information; principles, practices and techniques of group instruction and individual guidance in studying, evaluating and choosing an occupation.

27:310. THE COUNSELING INTERVIEW: APPROACHES, PROCEDURES AND EVALUATION. 2 *credits.*

The emphasis is placed upon the characteristics of the counselor, rôle of the counselor, various counseling approaches, the counseling interview and the status of counseling. The trainee should be able to choose tentatively a counseling approach upon completion of this course. (Should be taken immediately preceding 27:315.)

27:311. STATISTICS IN EDUCATION. 3 *credits.*

Statistical methods and techniques used in the field of measurement and by research workers in education.

27:314. EVALUATION AND DIAGNOSIS OF LEARNING PROBLEMS. 3 *credits.*

Study and measurement of factors leading to learning problems with some attention to remedial procedures.

27:315. PRACTICUM IN SCHOOL COUNSELING. 1 *or* 2 *credits.*

Prerequisite, 27:304. 100 hours of supervised experience per credit distributed as follows: 20 hours in selecting, evaluating, administering, scoring and interpreting tests. 20 hours in counseling with children and youth in such areas of concern as personal and home problems, health, scholastic achievement, school adjustment; 20 hours in educational guidance, time-budgeting, choice of activities, vocational choice, guidance in self-appraisal; 20 hours in counseling with parents, in programs of in-service education of teachers, in community service and public relations; 20 hours in record-keeping, case conferences, administration of school social program, student activities, group guidance.

27:317. SUPERVISION OF STUDENT TEACHING. 2 *credits.*

Primarily for supervising teachers in the guidance of student teachers. Topics include: readiness for student teaching; student teacher, directing teacher and college supervisor relationships; use of the conference, demonstration and observation; helping student teachers through evaluation.

27:319. SECONDARY SCHOOL CURRICULUM AND INSTRUCTION. 2 *credits.*

Application of the findings of recent research to curriculum building and procedures in teaching.

27:320. SECONDARY SCHOOL ADMINISTRATION. 2 *credits.*

Prerequisite, 345. Problems, procedures and principles of organization and administration in secondary schools.

27:321. ADULT EDUCATION. 2 *credits.*

A survey course for public school teachers and administrators as well as for those engaged full time in Adult Education. Historical background including European influences and their relation to rapid developments in the field during the last decade. Emphasis on current programs throughout the United States.

27:322. SUPERVISION OF INSTRUCTION. 3 *credits.*

Study of the principles, organizations and techniques of supervision with a view to the improvement of instruction.

27:327. GROUP AND EDUCATIONAL GUIDANCE. 2 *credits.*

The first half of the course deals with the place of group guidance in schools, techniques the counselor uses in group guidance and materials appropriate to group guidance. The second half of the course deals with educational guidance, especially the planning of an educational program from junior high school through senior high school and college or the appropriate post-high school plan.

27:330. ELEMENTARY SCHOOL CURRICULUM AND INSTRUCTION. 2 *credits.*

Application of the findings of recent research to curriculum building and procedures in teaching.

27:331. ELEMENTARY SCHOOL ADMINISTRATION. 2 *credits.*

Prerequisite, 345. Problems, procedures and principles of organization, administration and supervision in elementary schools.

27:335. WORKSHOP. *(Elementary and Secondary School).* 2 *credits.*

Lectures on workshop technique supplemented by the working out of individual problems under staff guidance.

27:345. PRINCIPLES OF EDUCATIONAL ADMINISTRATION. 3 *credits.*

Theory and practices of educational administration in state and county systems, cities and rural districts. School law, organizing, administration, finance, pupil accounting, planning and completion of school buildings.

27:350. LEGAL BASIS OF EDUCATION. 2 *credits.*

Prerequisite, 345. The Legal principles underlying American Education as reflected in statutory provisions and the decisions of our courts. Some specific attention given to Ohio law.

27:352. PRINCIPLES OF SCHOOL FINANCE. 2 *credits.*

Prerequisite, 345. Study of financial operations of school systems including tax and other income, expenditures and budgeting.

27:354. SCHOOL AND COMMUNITY RELATIONS. 2 *credits.*

Principles and practices in maintaining cooperative relationships between the schools and the public.

27:356. Education and Social Trends. 2 *credits.*

Study of contemporary political, economic and social trends and their effects on educational policies and practices.

27:360. Developmental Characteristics of Slow Learning Children. 3 *credits.*

Comparative study of the physical, emotional, intellectual and social development of normal and slow-learning children from infancy through adolescence.

27:361. Principles of Teaching Exceptional Children. 3 *credits.*

Basic principles underlying the instruction of exceptional children—slow learners, gifted, physically handicapped, etc.

27:362. Methods of Teaching Slow Learning Children. 2 *credits.*

A study of the understandings, techniques, skills and materials unique in the instruction of the slow learner.

27:363. Arts and Crafts for the Slow Learner. 2 *credits.*

Arts and crafts especially suited to the unique characteristics of slow learners.

27:364. Reading and Speech for the Slow Learner. 2 *credits.*

Program and techniques especially suited to slow learners; diagnosing problems and planning remedial and corrective measures.

27:414. Orientation to Pupil Personnel Services. 2 *credits.*

This course is designed to familiarize the student with the historical background of pupil personnel services, the organization and administration of these services, the rôles and functions of various pupil personnel workers in modern American education, the common problems peculiar to this area and the rôle of evaluation and research as it pertains to pupil personnel services.

27:420. School Building and Construction. 2 *credits.*

Prerequisite, 345. Designed mainly for the potential superintendent, executive head or post-Master's student in administration.

27:433. Comparative Education. 2 *credits.*

Educational philosophy and organization in foreign countries.

27:436. Seminar in Elementary Education. 2 *credits.*

27:437. Seminar in Secondary Education. 2 *credits.*

27:441. Evaluating Education Institutions. 2 *credits.*

Laboratory course in which the evaluation of educational institutions will be made by use of up-to-date techniques and criteria.

27:445. Administration of Student Personnel Programs. 2 *credits.*

Principles and practices in the development and overall administration of programs of guidance and other special services.

27:460-461. Internship in School Psychology. 3 *credits.*

Full time work under the supervision of a qualified school psychologist for a complete academic year according to the provisions of the State Department of Education. Additional readings and activities required.

27:499. RESEARCH IN EDUCATION. 2-4 *credits.*

Thorough study and analysis in depth of an educational problem; field projects in special areas; synthesis of existing knowledge in relationship to a specific topic.

GEOGRAPHY

28:54. ECONOMIC GEOGRAPHY. 3 *credits.*

Climate, land forms, mineral resources and vegetation and their influence upon economic activity. Required of all commerce students.

28:71. PRINCIPLES OF GEOGRAPHY. 3 *credits.*

Principles which are basic in gaining an understanding of the relationship of man's activities to his natural environment.

†28:72. GEOGRAPHY OF NORTH AMERICA. 3 *credits.*

Natural regions, climate, natural resources, work patterns and industries of the continent.

†28:73. GEOGRAPHY OF SOUTH AMERICA. 3 *credits.*

South American continent: its climate, products, types of inhabitants, various kinds of government and relation to North American neighbors.

†28:74. GEOGRAPHY OF EUROPE. 3 *credits.*

Natural regions, uneven distribution of resources among the several political units and an evaluation of some of the problems faced by countries of the continent.

†28:75. WORLD GEOGRAPHY. 3 *credits.*

Effects of geographical environment upon people living in Africa, Malaysian lands, India, China, Japan, Russia, South America, Caribbean lands, United States and Western Europe.

†28:77. GEOGRAPHY OF ASIA. 3 *credits.*

To help develop an understanding of the various countries of Asia, their economic-geography regions, major commodities, industries and commerce. Study of space relationships, climate, relief and natural resources as well as significant political, racial and social factors which have a bearing upon industrial and commercial activities.

28:79. GEOGRAPHY OF AFRICA. 3 *credits.*

This course will consider Africa's geographical background as an environment for human activity and study the responses which have been evoked from its African inhabitants and those who, in the last few centuries, have penetrated its fastness and molded its fortunes. Classes will attempt to evaluate the most cogent geographic, historical, social and economic factors which have led to the present stage of development.

HOME ECONOMICS EDUCATION

27:151. HOME ECONOMICS EDUCATION. *First semester.* 3 *credits.*

Organization of home economics in secondary schools. Two hours observation, two hours lecture.

† Prerequisite, Geography 71.

MUSIC EDUCATION

27:62. Elementary School Music Literature and Appreciation. 2 *credits.*

Materials and methods for teaching music appreciation in the grades, beginning with rote and reading song correlation with children's activities and progressing to the enjoyment of familiar serious music through recordings and concerts.

27:121. Primary-Elementary Music Education. 2 *credits.*

Prerequisite, 18:23. Theory and practice of presenting vocal and instrumental music in the grades. Rote, observation, sight reading and part-songs, and discussion of objectives and methods for grades I to VI. Survey of available materials in these fields and instruction in Rhythm Band, Melody Band and other pre-instrumental methods.

27:123. Secondary Music Education. 2 *credits.*

Procedures that should be employed to give the adolescent a well-balanced participation in applied and theoretical music.

NURSING EDUCATION

31:59. History of Nursing. 2 *credits.*

Nursing from prehistoric times to present day. An effort is made to show not only the relationship of the methods in care of the sick to political and economic conditions, but also to show the professional heritage of the present day nurse and the ethical backgrounds of her profession.

31:63. Food Economics. 3 *credits.*

For student nurses. Relative, nutritional and material values of foods as used in the family dietaries and in planning and preparing meals. Two hours lecture, two hours laboratory.

31:71. History of Nursing. 3 *credits.*

Open to graduate nurses or Seniors in the five-year program. Development of nursing from the pre-Christian period to the present time; its relation to religion, science and social institutions; the influence of leaders and origin of organizations.

31:100. Nursing Trends. 3 *credits.*

Current developments and problems in the various fields of nursing; attention to developments in other fields affecting nursing.

31:105. Principles and Methods of Teaching Nursing. 3 *credits.*

Open to registered nurses or Seniors in the five-year program. Principles of learning and methods of teaching, through which the student may understand and apply these to instruction in the nursing field. Discussion of classroom and clinical instruction; preparation of a plan for teaching an area of nursing according to major interest of the student.

31:106. Ward Management and Teaching. 3 *credits.*

Open to registered nurses or Seniors in the five-year program. An introductory course planned to guide thinking and preparation basic to the organization and management of a hospital division as a head nurse. Principles of administration, supervision and teaching will be explored, discussed and developed as they relate to nursing service and the guidance of all workers in the division as well as interdepartmental relations.

31:113. PUBLIC HEALTH NURSING PRACTICE. 3-6 *credits.*

Open to registered nurses or Seniors in the five-year program. Supervised visitation of homes in connection with the service rendered by the Visiting Nurse Service—the practice of public health nursing under supervision. (Six weeks experience for 3 credits)

31:114. COMPREHENSIVE NURSING CARE. 3 *credits.*

Prerequisite or concurrent 113. Analysis and planning of nursing needs of patients. Discussion of the applications of principles of psychology, sociology natural sciences, community organization and nursing as they affect nursing care. Planned around needs of the students.

31:115. COMPREHENSIVE NURSING PRACTICE. 3 *credits.*

Prerequisite or concurrent 114. Practice in planning and executing comprehensive nursing care for selected patients and directing the members of the nursing team in providing this care. Field experience provided in local hospitals and selected to meet needs and interests of the individual student. Field work 9 hours per week.

PHYSICAL EDUCATION

GENERAL COLLEGE

1:21:22. PHYSICAL EDUCATION. ½ *credit each semester.*

Required course in physical education activity planned for freshman year.

WOMEN

I. Folk and Square Dancing (each semester ½ credit)
II. Team Sports (Soccer-Volleyball) (first semester ½ credit)
III. Team Sports (Basketball-Softball) (second semester ½ credit)
IV. Individual Sports (Archery-Badminton) (each semester ½ credit)
V. Beginning Swimming (each semester ½ credit)
Intermediate Swimming (each semester ½ credit)
VI. Advanced Swimming and Diving (each semester ½ credit)
Advanced Swimming and Life Saving (second semester ½ credit)
VII. Modern Dance (each semester ½ credit)

MEN

Men's Physical Activities (each semester ½ credit)

29:45-46. BASIC COURSE IN PHYSICAL EDUCATION ACTIVITIES. 2 *credits each semester.*

Separated sections for men and women majoring in Physical Education. Learning rules and skills in sports, games and activities commonly included in Physical Education programs.

29:70. ORGANIZATION AND ADMINISTRATION OF RECREATION. 2 *credits.*

Administration, Budgets, Management of Individual Playgrounds, the Neighborhood Recreation Center and Community Activities.

29:93-94. THEORY AND PRACTICE OF PHYSICAL EDUCATION (for men). 2 *credits each semester.*

Prerequisite, 45-46. To develop personal technique and skill in presenting calisthenics, marching, gymnastic activities and officiating in sports; history; general lesson

plans suitable for elementary and secondary school programs. Observation at all school levels.

29:95-96. THEORY AND PRACTICE OF TEAM AND INDIVIDUAL SPORTS (for women). 2 *credits each semester.*

Prerequisite, 46. Analysis of skills essential to selected sports, techniques of organizing and teaching classes in these sports, laboratory experience through supervised teaching in service courses, application of current rules in officiating.

29:97. APPLIED ANATOMY. 3 *credits.*

Study of the human body; origin, insertion, action, innervation and blood supply of the important muscles of the body in relation to Physical Education and health.

29:98. APPLIED PHYSIOLOGY. 3 *credits.*

General laws of life; functional activity of tissues, organs, systems; what they can do and how they work in everyday life.

UPPER COLLEGE

29:103. THEORY AND PRACTICE OF PHYSICAL EDUCATION (for women). *Second semester.* 2 *credits.*

Historical development, methods and practice in the teaching of apparatus, gymnastics, stunts and tumbling (first nine weeks). Tests and measurements in Physical Education (second nine weeks).

29:105-106. THEORY AND PRACTICE OF ATHLETICS (for men). 2 *credits each semester.*

Interpretation of rules, techniques and practice in officiating in team and individual sports.

29:108. THEORY AND PRACTICE OF DANCE. *Second semester.* 2 *credits.*

Analysis of the basic dance steps for folk, square and social dance; square dance calling; modern dance technique and improvisations; methods and materials of teaching dance. Supervised teaching in service courses.

29:111. RED CROSS FIRST AID. 1 *credit.*

Standard American Red Cross course which gives instruction and practice in the immediate and temporary care of injuries and sudden illness.

29:112. ATHLETIC INJURIES AND MASSAGE (men). *Second semester.* 1 *credit.*

Theory and practice in scientific manipulation of the muscles as related to therapeutic exercise.

29:114. THEORY AND PRACTICE OF SWIMMING. *Second semester.* 2 *credits.*

Analysis of strokes, dives and related skills; methods and practice in teaching of swimming.

29:115. ADAPTIVE PHYSICAL EDUCATION. 2 *credits.*

Prerequisites, 97 and 98. Current theories and practices relating to the needs of physically handicapped children; emphasis is given to underlying philosophy, purpose and administration.

29:119. COMMUNITY HYGIENE. 3 *credits.*

Personal and community hygiene, nutrition, disease prevention and control, mental

and emotional health and problems of medical care. For health and Physical Education majors and minors.

29:120. CAMPING AND OUTDOOR EDUCATION. 2 *credits.*
Camping skills and counseling techniques. Camp administration, school camping and outdoor education.

29:121-122. ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION. 2 *credits.*
Organization and administration of Physical Education programs.

29:125. ORGANIZATION AND ADMINISTRATION OF SCHOOL HEALTH. 3 *credits.*
Organization of health education, with special reference to national, state and local control. Staff, program, budget, health and safety, facilities and other phases of administration.

29:133. METHODS AND MATERIALS IN TEACHING HEALTH EDUCATION. 3 *credits.*
Current materials for elementary and secondary school grades; integration and correlation of health education in the education of school children; survey of community, state and federal agencies concerned with health of school-age children.

29:134. GAMES AND RHYTHMS FOR ELEMENTARY GRADES. 2 *credits.*
One lecture and two laboratory periods each week. Lectures on theories of play, child development and supervision responsibilities with classroom teachers in the program of Physical Education. Laboratories give an opportunity for analysis and teaching games for the various age groups. For majors in Physical Education.

29:138. HEALTH AND PHYSICAL EDUCATION ACTIVITIES FOR ELEMENTARY GRADES. 3 *credits.*
(Previously Physical Education 131 *and* 132.)
Two lectures and two laboratory periods each week. Philosophy and objectives of health and Physical Education programs on the elementary level. Practice in teaching games and rhythms of low organization; planning health and Physical Education programs based upon needs, interests and development of elementary children; common communicable and non-communicable diseases; methods of organization; study of source materials available.

SPEECH EDUCATION

27:114. TEACHING OF SPEECH. 2 *credits.*
Methods to improve speech of elementary and secondary school children.

AN UPPER COLLEGE:

The College of Business Administration

WARREN W. LEIGH, Ph.D., *Dean*

The College of Business Administration prepares men and women for positions of leadership in the business world, equipping them with a strong awareness of social, economic and political principles and imparting skills related to the tools and methods of management.

Graduates of this Upper College can expect to enter fields of business or governmental administration, accounting, marketing, advertising or industrial management or advanced study for law, business, or teaching. Study programs follow the University philosophy of teaching each student in the broad areas of knowledge; superimposed on this fundamental education are the specific knowledge areas pertaining to the functional operations of modern commerce and industry.

In an era when progress of the world is importantly concerned with economic production and efficient distribution of its material products, it is essential that business be guided and transactions be arranged and carried out by well-educated men and women with high ideals. The goal of the College of Business Administration is to send forth trained business-people who have attained a high degree of intellectual and professional competence.

They will have the foundation and competence, with experience, to assume positions of responsibility behind the desks in large industrial firms, to become executives in their own enterprises or career men in government. Also, due to the continuing rise of international trade, frequent opportunities for trained young business executives are to be found in the foreign operations of industry or of public agencies.

At The University of Akron, there is a long history of education relating to the field of commerce. Since 1919 there have been courses offered in the Department of Commerce. It was in 1953 that these were combined with other related commercial and industrial fields and made into a separate college.

Since its inception, the College of Business Administration's curriculum has been designed with equal emphasis on the broad basic principles as well as the immediate practices. Textbook knowledge is consistently made more significant by field trips and inspection tours to witness business operations "on the scene."

Similarly, the College maintains a sound balance between liberal education and professional courses. Half of the courses of study are in a field of liberal education; the remaining courses are divided between courses of general business subjects and the individual student's own indicated area of specialization.

REQUIREMENTS FOR ADMISSION

The College of Business Administration accepts students after they have completed two years of General College work. The admission of a student will depend upon his

preparation, ability to do college work, his interests, moral character and fitness for an effective business or professional career. The entrance requirements to the College are:

1. Completion of 64 credits with an average of "C" in all work taken, or permission of the Dean.
2. A general educational background as indicated by the satisfactory completion of the General College program as specified for the various areas of Business Administration.
3. Evidence of satisfactory competence in oral and written English and applied mathematics.

The College reserves the right to require examinations of students transferring work to validate the credits, if necessary, or properly to place the student where the more advanced courses presume a certain background of knowledge, as in accounting.

To undertake a major leading to the Business Administration or the Industrial Management degree, the student must have a "C" average with not more than one "D" in the "pillar" courses which consist of Accounting 22, Economics 45-46, Production Management 62, Marketing 83, and Business Finance 171.

DEGREES

Degree programs are provided by several of the departments in the evening as well as in the day sessions.

Degrees granted by the College of Business Administration are: Bachelor of Science in Business Administration, Bachelor of Science in Industrial Management, Master of Science in Business Administration.

REQUIREMENTS FOR GRADUATION

1. A minimum of 128 credits, including the work in the General College. Not more than two credits of physical education activities, eight credits of applied music, four credits of typing, or eight hours of advanced ROTC may be included.
2. Other requirements, including the residence requirement, listed in this catalog.
3. At least a "C" average in (a) the major, the "pillar" courses and all courses taken in the College, and (b) all courses undertaken here and elsewhere.
4. Recommendation of the student's department head.

BASIC CURRICULUM PATTERN FOR BUSINESS ADMINISTRATION

PRE-BUSINESS PREPARATION TWO YEARS		BUSINESS ADMINISTRATION MAJOR	
Liberal Education —to Provide:	*Business Foundation Courses*	*Junior Year*	*Senior Year*
1. Facility in use of English—oral and written.	1. Business Organization	1. Principles of business operation. Production Marketing Finance Personnel Relations	Major of 15 credits —sufficient concentration for the student to appreciate and understand one given area of business.
2. Knowledge of basic mathematics—the quantitative measuring tool.	2. Economics	2. Measurement and control tools: Accounting Costs-budgets Statistics Operating standards	Electives in Liberal Arts in: a. Economics, social sciences, literature, etc. b. Bus. Adm. Courses (major)
3. A basic understanding of the reasoning and analytical methods of science.	3. Accounting		Business Policy (3 credits) integrates, evaluates and applies the materials learned.
4. Knowledge of man's moral, social, cultural and religious development.			

ACCOUNTING DEPARTMENT

The accountant of today is recognized as a professional man. Practice of public accountancy and practice of accountancy in private employment are both included in professional accounting. Standards and ethics are as important in one as in the other; mastery of accounting concepts and procedures is equally essential to both.

Private and public business provide opportunities for employment to persons with accounting backgrounds. Accounting graduates usually begin their careers in junior positions. Those who choose public accounting may become seniors, managers, principals and partners in a public accounting firm. Those who choose careers in private business may later hold such senior positions as chief accountant, budget director, internal auditor, treasurer and controller. More frequently than ever before, outstanding public accountants are being appointed to fill top positions in government. The presidents of more than eighty nationally-known corporations reached their executive positions by way of the accounting department.

The accounting curriculum is designed to prepare the student for professional service, including the taking of the state-board-administered uniform certified public accounting examination and prepares the student to undertake advanced study leading to the M.B.A. degree. In recognition of the fact that public and private accounting rest on the same foundation, the following basic accounting courses are required of all accounting majors:

6 hours of elementary accounting (39:21 and 39:22)
3 hours of elementary cost accounting (39:27)
6 hours of intermediate accounting (39:43 and 39:44)
3 hours of Federal income tax procedures (39:233)
6 hours of auditing (39:237 and 39:238)

The Level I achievement test, prepared and graded by the American Institute of Certified Public Accountants, is required of all students before credit will be granted in Accounting 22. Students interested in majoring in Accounting should score well on this test. The Level II accounting test is required of all students desiring credit for Accounting 238.

In addition to the accounting courses required in the above program, students preparing for a career in public accounting are advised to take Accounting 231. Majors preparing for careers in industrial accounting may take Advanced Cost Accounting 228, Budgeting 123, plus selected courses in Industrial Management (such as Production Control and Motion and Time Study).

ACCOUNTING CURRICULUM

First Year

	First Semester	Credits		Second Semester	Credits
1:1	Written English	3	1:2	Written English	3
1:15	Institutions in U.S.	3	1:16	Institutions in U.S.	3
39:21	Accounting	3	39:22	Accounting	3
40:61	Business Organization	3	17:18	Intermediate Algebra	3
1:21	Physical Education	½	1:22	Physical Education	½
	ROTC 11 or 13	1½		Elective	3
				ROTC 12 or 14	1½
		14			17

(Numbers Communication—if needed)

Second Year

1:5	Written English	3	1:8	Effective Speaking	3
1:13	R & U in Science	3	1:14	R & U in Science	3
39:43	Accounting	3	39:44	Accounting	3
6:45	Economics	3	6:46	Economics	3
	Behavioral Science	3	40:62	Production Management	3
	ROTC 43 or 53	1½		ROTC 44 or 54	1½
		16½			16½

Third Year

1:17	Western Cult. Trad.	3	1:18	Western Cult. Trad.	3
40:141	Business Law	3	40:142	Business Law	3
39:27	Cost Accounting	3	40:147	Statistics	3
40:83	Marketing	3	6: - -	Economics	3
40:171	Finance	3		Liberal Arts Elective	3
	Behavioral Science	3			
		18			15

Fourth Year

1:103	Eastern Civilizations	3	1:101	Senior Seminar	2
39:233	Taxation	3	39:238	Auditing	3
39:237	Auditing	3	40:268	Business Policy	3
	Liberal Arts Elective	3		Accounting Elective	3
	Electives	3		Electives	5
		15			16

GENERAL BUSINESS

The General Business Department develops and applies the principles and techniques of economics, administration and operation which are common to all business and industrial organizations. The Department offers majors in three fields: General Administration; Advertising, Marketing and Merchandising; and Finance.

Programs in the Department are adapted for students preparing for careers in business operation, marketing and merchandising, advertising, sales, retailing, finance, transportation or foreign trade.

The Department also provides business education for students majoring in Liberal Arts but seeking careers in business, and for students majoring in textiles but seeking positions in merchandising. It also provides excellent fundamental background for advanced study, law or governmental careers.

It is suggested that students in the Department who have no definite specialized interest take General Business. Before undertaking a major in any area, students should discuss their capacities and prospects for success in that field with the head of the department.

The Department's Sales and Merchandising Laboratory makes it possible for the latest developments and practices in the marketing field to be brought into classrooms on retailing, advertising, accounting and selling.

REQUIREMENTS FOR GENERAL BUSINESS

First Year

	First Semester	Credits		Second Semester	Credits
1:1	Written English	3	1:2	Written English	3
17:18	Intermediate Algebra	3	40:61	Business Organization	3
	or			or	
40:61	Business Organization	3	17:18	Intermediate Algebra	3
1:15	Institutions in U.S.	3	1:16	Institutions in U.S.	3
1:21	Physical Education	½	1:22	Physical Education	½
39:21	Accounting or 121	3	39:22	Accounting*	3
	ROTC 11 or 13	1½		ROTC 12 or 14	1½
	Behavioral Science	3		Behavioral Science	3
		17			17

Second Year

1:5	Written English	3	1:8	Effective Speaking	3
1:13	R & U in Science	3	1:14	R & U in Science	3
6:45	Economics	3	6:46	Economics	3
40:62	Production Management	3	40:83	Marketing	3
	Behavioral Science Elec.	3		Elective	3
	ROTC 43 or 53	1½		ROTC 44 or 54	1½
		16½			16½

Students electing Advanced ROTC should take Marketing 83 and Business Finance 171 in the Summer Session at this point.

* Not to be taken if student has taken 39:121.

Third Year

First Semester		Credits	Second Semester		Credits
1:17	Western Cult. Trad.	3	1:18	Western Cult. Trad.	3
40:141	Business Law	3	39:124	Managerial Accounting	3
40:171	Business Finance	3	40:147	Statistics	3
	Economics Elective	3		Related Elective	3
	Major Elective	3		Major Elective	3
		15			15

During the Junior year, the student will elect a major in which he wishes to specialize. He must complete a minimum of 15 hours of work in his major, including two 3-credit courses on the 200 level, excluding Business Policy 268.

Fourth Year

1:101	Senior Seminar	2	40:268	Business Policy	3
1:103	Eastern Civilizations	3		Major Electives	6
	Major Elective	3		Related Electives	6
	Related Electives	8			15
		16			

Three fields of specialization exist: Finance; Marketing; Merchandising and Advertising; and General Management. Fifteen hours are required to complete a major. With the approval of his adviser a student may select courses for his major from those listed below. Courses designated with an asterisk (*) are required for a major in this field.

FINANCE

		Credits			Credits
40:272	Investments*	3	40:158	Principles of Insurance	3
40:279	Problems in Finance*	3	40:174	Credits & Collections	2
40:277	Security Analysis	3	40:247	Advanced Statistics	3
40:176	Banking Practice and Management	3	6:204	Monetary & Banking Policy	3
6:148	Money and Banking	3	6:208	Public Finance	3

MARKETING, MERCHANDISING AND ADVERTISING

		Credits			Credits
40:181	Principles of Salesmanship*	3	40:185	Advertising	3
40:291	Sales Administration*	3	40:283	Problems in Advertising	3
40:293	Problems in Marketing*	3	40:284	Problems in Retail Management	3
40:296	Market Analysis	3	40:188	Sales Promotion and Market Development	3
40:194	Principles of Merchandising	3			

GENERAL MANAGEMENT

		Credits			Credits
42:101	Industrial Plants	3	40:189	Purchasing	2
40:279	Problems in Finance	3	40:247	Advanced Statistics	3
40:291	Sales Administration	3	40:163	Personnel Management	2
40:185	Advertising	3	6:294	National Income and Its Variations	3
40:264	Personnel Relations	3			
40:151	Transportation	3			

The degree of Bachelor of Science in Business Administration will be granted to those students who complete the prescribed work, including a problems course or seminar in the major area.

INDUSTRIAL MANAGEMENT

The University of Akron was one of the first institutions of higher learning to establish an Industrial Management curriculum. The location of the University in a major industrial area and the trend of the times were important factors in the decision to establish such a program.

This emphasis of education for management is the result of several factors. First, management people are becoming increasingly conscious of the professional requirement for understanding of applied mathematics and social sciences. Second, the management job is becoming much more complex in terms of numbers of activities, volume of work and the broader impact of managerial decisions. Third, it is more and more recognized that industrial management requires people of specific qualifications and preparation.

The past decade has brought about a tremendous expansion in industry and business—in the number of enterprises, in facilities and in the number of management jobs. Graduates with industrial management degrees find many employment opportunities, especially with industrial firms, in staff, supervisory and management positions.

Also, the Industrial Management graduate has the fundamental preparation to undertake advanced study leading to an M.B.A. degree.

REQUIREMENTS FOR INDUSTRIAL MANAGEMENT DEGREE

First Year

	First Semester	Credits		Second Semester	Credits
1:1	Written English	3	1:2	Written English	3
40:61	Bus. Org. & Mgmt.*	3	1:16	Institutions in U.S.	3
1:15	Institutions in U.S.	3	1:22	Physical Education	½
1:21	Physical Education	½	39:22	Accounting or 121	3
39:21	Accounting or 121	3		ROTC 12 or 14	1½
30:41	Gen. Psychology*	3	17:18	Inter. Algebra*	3
	ROTC 11 or 13	1½	22:41	Gen. Sociology*	3
		17			17

* May be taken either semester.

Second Year

1:5	Written English	3	1:8	Effective Speaking	3
1:13	R & U in Science	3	1:14	R & U in Science	3
6:45	Economics	3	6:46	Economics	3
	Elective	3	40:83	Marketing	3
39:27	Cost Accounting	3		ROTC 44 or 54	1½
	ROTC 43 or 53	1½	42:62	Production Mgmt.	3
		16½			16½

Third Year

1:17	Western Cult. Trad.	3	1:18	Western Cult. Trad.	3
42:101	Industrial Plants	3	42:166	Motion & Time Study	4
40:147	Statistics	3	42:163	Personnel Management	2
40:171	Business Finance	3	40:141	Business Law	3
	Economics Elective*	3		Major Elective*	3
		15			15

* Electives must be approved by major adviser.

Fourth Year

1:101	Senior Seminar	2	40:268	Business Policy	3
1:103	East. Civilizations	3	42:209	Quality Control	3
42:203	Production Control	3	42:256	Ind. Mgmt. Problems	3
	Electives*	8		Electives*	6
		16			15

* Electives must be approved by major adviser.

Comprehensive Listing of Subjects of Instruction

COLLEGE OF BUSINESS ADMINISTRATION
ACCOUNTING

GENERAL COLLEGE

*39:21-22. ACCOUNTING. 3 *credits each semester.*

Accounting concepts and techniques essential to administration of a business enterprise; principles of corporation, partnership and proprietorship accounting; analysis and interpretation of financial statements and reports.

*39:27. COST ACCOUNTING. 3 *credits.*

Prerequisites, 22 or 121 and 3 hours of Economics. Theory and practice of Accounting for material, labor and overhead expenses, with particular reference to controlling manufacturing costs.

UPPER COLLEGE

39:121. ACCOUNTING SURVEY. 3 *credits.*

No prerequisite. Organized for engineers and other non-accounting majors who want an understanding of Accounting fundamentals. Clerical work is minimized. Industrial Management students may meet the Accounting requirements by completing Accounting 121 and 27.

39:123. BUDGETING. 3 *credits.*

Prerequisite, 27 or 121. Sales production and distribution budgets; comparison of budget with financial statements; accounting problems involved.

39:124. MANAGERIAL ACCOUNTING. 3 *credits.*

Prerequisite, Accounting 22 and 3 hours of Economics. For non-accounting majors only. Interpretation of accounting data in granting credit, effecting necessary control of business operation and in formulating business policy.

39:228. ADVANCED COST ACCOUNTING. 3 *credits.*

Prerequisite, 27. Emphasis on standard cost procedure and other advanced cost accounting problems.

39:230. ACCOUNTING SYSTEMS. 3 *credits.*

Prerequisite, 44 and permission of instructor. Systematizing order, billing, accounts receivable, accounts payable, payrolls and various distribution procedures. Field trips and term project.

39:231-232. ADVANCED ACCOUNTING. 3 *credits each semester.*

Prerequisite, 44. First semester deals with partnerships, consignments, installment

* Accounting 121 and 124 may be taken by advanced and qualified students in place of 21, 22, and 27.

sales, insurance, estates and trusts, receivership and correction of statements and books. Second semester deals with branch accounting and consolidated statements. Accounting 232 may be taken before Accounting 231.

39:233-234. TAXATION. 3 *credits each semester.*

Prerequisite, 44. First semester deals with the current tax law as it applies to individual and proprietorship. Second semester discusses federal income tax problems of partnerships and corporations and includes a survey of state and local taxes. Accounting 233 is a prerequisite for 234.

39:236. ACCOUNTING PROBLEMS. 3 *credits.*

Prerequisite, 44 and permission of instructor. Individual research on an advanced accounting problem in area of student's particular interest.

39:237-238. AUDITING. 3 *credits each semester.*

Prerequisite, 44. A study of the problems of the auditor as a member of the staff (internal) and as an external or public accountant, with particular emphasis on auditing standards and procedures. Required of accounting majors. Accounting 237 is a prerequisite for 238.

39:399. CPA PROBLEMS. 4 *credits.*

Prerequisites, 229, 231, 232, 233 and approval of instructor. Application of accounting and auditing theory through the study of selected problems. CPA examination techniques and procedures.

GRADUATE COURSES

39:421. ADVANCED ACCOUNTING THEORY. 3 *credits.*

This course invites a critical examination of accounting concepts and standards. The controversial aspects of these and other problems are considered in the light of terminology, the limitation of concepts and statutory requirements, and current trends.

39:427. ACCOUNTING MANAGEMENT AND CONTROL. 3 *credits.*

Emphasis is placed on the rôle of accounting as a tool of management planning and control in the areas of production, finance, marketing and general administration.

39:498. SEMINAR IN ACCOUNTING. 3 *credits.*

Research projects, group reports and discussions.

GENERAL BUSINESS

GENERAL COLLEGE

40:61. BUSINESS ORGANIZATION AND MANAGEMENT. 3 *credits.*

Survey of modern business procedures, including kinds of business organizations, production systems, personnel problems, wage payment plans, product design, purchasing, marketing and advertising.

40:62. PRODUCTION MANAGEMENT. 3 *credits.*

Prerequisite, 61, and Sophomore standing. Place of management in business; economics of industrial production; factors of production; and control of the production processes.

40:82. CONSUMER ECONOMICS. 3 *credits.*

40:83. MARKETING. 3 *credits.*

Prerequisite, 3 hours of Economics. Functions involved in marketing goods and services, distribution channels, buying behavior, retailer and wholesaler characteristics, marketing cost factors, price and brand problems and marketing legislation.

40:84. PUBLIC RELATIONS. 2 *credits.*

General course in Public Relations covering newspaper publicity, industrial publications and other types of organizational publicity.

UPPER COLLEGE

40:141-142. BUSINESS LAW. *Each semester.* 3 *credits.*

Origin of commercial law, operation and discharge of contracts; law of sales, agency, negotiable instruments; partnerships and corporations; recent court cases integrated with the text material to demonstrate how principles apply to concrete cases.

40:144. LAW OF CREDIT AND COLLECTIONS. 2 *credits.*

Types and characteristics of sales contracts; law of collection procedure, liens, and other legal recourses of creditors.

40:146. REAL ESTATE LAW. 2 *credits.*

Legal problems connected with property transfer and acquisition, landlord and tenant relationships, trusts, etc.

40:147. ECONOMIC STATISTICS. 3 *credits.*

Prerequisite, 6 credits in Economics. Nature and uses of statistical data, ratio analyses, distribution curves, central tendencies, index numbers, correlation.

40:151. TRANSPORTATION. 3 *credits.*

Prerequisite, 3 hours of Economics. A basic course in the economics of transportation, requirements of an effective transportation system, rate-setting, etc.

40:152. TRAFFIC MANAGEMENT. 2 *credits.*

Prerequisite, 151. Classification of commodities, setting tariffs, routing, traffic claims.

40:153-154. INTERNATIONAL COMMERCE. *Each semester.* 2 *credits.*

Prerequisite, 3 hours of Economics. Principles of international trade, balances, distribution machinery; characteristics and potentials of various foreign markets. Credit not given for both Foreign Trade and International Commerce.

40:156. FOREIGN TRADE. 3 *credits.*

Prerequisite, 3 hours of Economics. Economics and practices of foreign trade with emphasis on world trade from the standpoint of United States.

40:158. PRINCIPLES OF INSURANCE. 3 *credits.*

Prerequisite, 171. Underlying principles on which all forms of insurance are based. Beginning with the theory of probabilities, the principles are developed as they apply to the divisions of insurance—life, fire, marine, casualty and security bonds.

40:165. EXECUTIVE SECRETARIAL DICTATION. 3 *credits.*

Prerequisite, 64 or equivalent. Dictating articles and letters, including special vocabularies. Techniques of reporting and taking of lectures. Speed attainment: 120 to 140 words per minute.

40:171. Business Finance. 3 *credits.*

Prerequisites, 22 and 6 hours of Economics. Principles and practices used in financing large and small organizations. Forms of organization, raising of capital by means of stocks and bonds, investing the capital in fixed and working assets, conservation of capital, failures and reorganization.

40:174. Credits and Collections. 2 *credits.*

Prerequisites, 61 and 3 hours of Economics, or experience. Nature and fundamentals of credit, credit investigation and analysis, credit and collection operations, collection aids and problems.

40:176. Banking Practice and Management. 3 *credits.*

Prerequisite, 171. Surveys work of the more important credit institutions, including commercial banks, finance companies, savings banks and consumer credit and government credit agencies. Rôle of each type of institution in the economic system. Function of bank reserves; bank portfolio policy; capitalization and earning power; impact of public policy upon organization, structure, and operation of the credit system.

40:181. Principles of Salesmanship. 3 *credits.*

Prerequisite, 40:83. A study of personal selling as a part of the marketing process including the qualifications, economics, functions and obligations of salesmen. Emphasis is placed upon demonstrations and sales projects.

40:185. Principles of Advertising. 3 *credits.*

Prerequisite, 40:83. Study of place, objectives and tools of modern advertising. Creation and development of a campaign based upon research and trade requirements.

40:188. Sales Promotion and Market Development. 3 *credits.*

Prerequisite, 40:185. The development of local, regional and national markets. Covers planning, execution of specific promotions directed to the manufacturer's marketing division, the dealer organization and the consumer.

40:189. Purchasing. 2 *credits.*

Prerequisite, 3 hours of Economics. Includes the individual phase of purchasing, its significance, scope, procedure and such topics as buying the right quality, inspection, quantity control, sources and assurance of supply.

40:194. Principles of Merchandising. 3 *credits.*

Prerequisite, 40:83. The development and application of the basic concepts of moving merchandise toward the customer. The relationship of market availability and product research to merchandising.

40:195-196. Office Management. *Each semester.* 2 *credits.*

Office functions and principles involved in office management, adapted for adults with office experience. Credit not allowed for this course and also 297.

40:234. Advanced Business Communication. 2 *credits.*

Prerequisite, 93. An advanced treatment of written business communication from the management standpoint, designed primarily for qualified persons experienced in some phase of business communication.

40:247. ADVANCED STATISTICS. 3 *credits.*

Prerequisite, 40:147. Emphasis is placed upon the analysis of time series, dispersions, correlations and the reliability of estimates. The application of statistical techniques to such fields as quality control, operations research, linear programming is also considered.

40:250. BUSINESS AND SOCIETY. 3 *credits.*

Prerequisite, Senior by permission. Primarily a conceptional course which considers the economic and social implications of modern business in society and the norms and values by which their functioning is or might be directed.

40:268. BUSINESS POLICY. 3 *credits.*

Prerequisite, final semester Senior standing. Required of all Business Administration majors. Philosophy of scientific management; evaluation of objectives and aims of management; policy requirements in terms of external and internal factors of business; use of statistical, cost and other tools in the determination of sales, financial, personnel, expansion and control problems.

40:272. INVESTMENTS. 3 *credits.*

Prerequisite, 171. Formulation of investment policies for various types of individual and institutional investors, consideration of principles and techniques applicable to analyzing securities of industrial corporations, railroad utilities and municipalities and to development of workable criteria for the selection or rejection of issues.

40:277. SECURITY ANALYSIS. 3 *credits.*

Prerequisite, 272. Comparative study of organized security markets. Principles and practices of organized stock exchanges and over-the-counter markets. Protecting the public interest through regulation and control of promotions, the issue of securities, underwriting practices and stock-trading practices.

40:279. PROBLEMS IN FINANCE. 3 *credits.*

Prerequisite, 171. Financing of large corporations. Use of different types of securities as instruments of finance; internal financing by reserve accruals and by retention of net income; mergers, consolidation; and holding syndicates; influence of taxation on corporate policy; and reorganization under the Federal Bankruptcy Act.

40:284. PROBLEMS IN RETAIL MANAGEMENT. 3 *credits.*

Prerequisite, 40:194. Problems involved in the application of management principles to the retail organizations of various types. Also implication on social trends on retail management.

40:286. PROBLEMS IN ADVERTISING. 3 *credits.*

Prerequisite, 40:188 or permission of instructor. Advertising problem analysis and creation of layouts and copy.

40:291. SALES ADMINISTRATION. 3 *credits.*

Prerequisites, 40:83 and 40:181 or 185. Place of distribution in marketing scheme; determination of marketing objectives and policies and their implementation and control.

40:292. EXECUTIVE OFFICE PROJECTS. 3 *credits.*

Prerequisites, 25, 27, 64. Projects related to the secretary's work, general secretarial functions, administrative problems and office experience.

40:293. PROBLEMS IN MARKETING. 3 *credits.*

Prerequisite, 291 or its equivalent. Problems involved in determining marketing channels, methods and sales are applied to specific situations.

40:296. MARKET ANALYSIS. 3 *credits.*

Prerequisites, 40:83 and 40:147. A study of the objectives, techniques and methods of analyzing market behavior and market forces.

40:297. OFFICE ORGANIZATION AND MANAGEMENT. 3 *credits.*

Prerequisite, Business Organization 40:61. Individual projects relating to analyses of various aspects of the office and to problems involved in office management.

40:299. SEMINAR. 1-3 *credits each semester.*

40:450. ADMINISTRATING COSTS AND PRICES. 3 *credits.*

The purpose of the course will be to provide an understanding of the techniques used by managers in reaching both short and long-run decisions in these areas. The course will explore the areas of decision-making on costs and prices which determine business profitability.

40:465. COMPARATIVE INDUSTRIAL RATIONALE. 3 *credits.*

An institutional approach to the study of industrial organization. Consideration is given to the determinants of these industrial structures and an effort will be made to evaluate the market relationship between structure and market performance. Industrial organization under various economic and political systems will be considered.

40:466. MANAGEMENT—BEHAVIOR AND METHODS. 3 *credits.*

Consideration is given to the sociological and anthropological backgrounds determining group organization, behavior and motivation. Emphasis is placed on the dynamics of control, direction, communication and coordination.

40:469. ORGANIZATIONAL THEORY AND POLICY FORMULATION. 3 *credits.*

Following a critical examination of the development of organizational theory, the principles of organization and scale will be critically evaluated and trends noted. The latter half of the course will be devoted to the investigation and solution of complex case problems involving competitive behavior, internal controls and industry and government business relationships.

40:474. FINANCIAL MANAGEMENT AND POLICY. 3 *credits.*

Working Capital Management, Controlling Inventory Investments, Administering Costs and Funds, Managing Investment in Plant and Equipment, Administering Business Income and Forecasting for Financial Management.

40:490. MARKETING MANAGEMENT AND POLICY. 3 *credits.*

Company functions in relation to demand and consumer factors and the cost and operational elements that determine profitable operation. The corporate and integrated viewpoints are emphasized. Quantitative analysis and programming are considered.

40:498. SEMINAR IN GENERAL BUSINESS. 3 *credits.*

Research projects, group reports and discussions.

INDUSTRIAL MANAGEMENT

UPPER COLLEGE

42:101. INDUSTRIAL PLANTS. 3 *credits.*

Prerequisites, 40:62 and 3 hours of Economics. Production flow problems in basic industries, plant location, production analysis, plant layout, material handling and storage.

42:107. INDUSTRIAL SAFETY. 2 *credits.*

Prerequisite, 62. Causes of accidents, fundamentals of accident prevention, maintenance of health standards, safety organization.

42:109. MAINTENANCE OF PLANTS AND EQUIPMENT. 2 *credits.*

Prerequisite, 101. Power metering; inspection, cleaning, lubrication and repair of equipment; estimating control of maintenance costs.

42:149. BUSINESS OPERATIONAL PLANNING. 3 *credits.*

Prerequisite, Statistics 147. The use of current statistical and economic techniques for planning the over-all operation of a business firm. Consideration is given to both internal and external factors which influence the short-run and long-range economic plans of a business firm.

42:162. PERSONNEL MANAGEMENT. 3 *credits.*

Prerequisites, 40:61 and Psychology 41. Phenomena of individual and group behavior in the business environment with emphasis on the firm, its employees, objectives and technology. Structuring and control of specific personnel programs in selection, development, supervision and compensation with reference to behavioral and economic forces.

42:165. MOTION AND TIME STUDY. 3 *credits.*

Prerequisite, 40:62. Industrial application of motion study; process analysis; principles of motion economy; micromotion study; film analysis and group motion studies. Analysis techniques, time recording equipment; time study procedure; leveling and rating; fatigue; ratio delay and standard data method.

42:169. JOB EVALUATION AND MERIT RATING. 2 *credits.*

Prerequisites, 162 and 6 hours of Economics or its equivalent. Job descriptions; installing and maintaining the plan; determining the wage scale; types of merit rating and developing a merit rating plan.

42:203. PRODUCTION PLANNING AND CONTROL. 3 *credits.*

Prerequisite, Senior standing and 40:147. Production planning and forecasting; centralized production control; scheduling; routing and dispatching; types of manufacture in relation to types of production control. Representative systems of production control. Application of quantitative methods to production control.

42:205. QUALITY CONTROL. 3 *credits.*

Prerequisites, 101 and 40:147. Quality control and inspection in the organization structure; the inspection function; collection and use of inspection data; application of statistical methods to quality control and use of control charts.

42:256. INDUSTRIAL MANAGEMENT PROBLEMS. *Either semester.* 3 *credits.*

Prerequisites, 203 and 205 and last semester Senior standing. Modern practices and principles applied to an actual problem from industry.

42:260. THE ECONOMICS AND PRACTICE OF COLLECTIVE BARGAINING. 3 *credits.*

Prerequisites, 164, 106 or their equivalent. Meaning, process, principles and organization of collective bargaining; collective bargaining agreements; issues presented in labor disputes and settlements dealing with union status and security, wage scales, technological changes, production standards, etc. Administered jointly by Economics and Commerce Departments.

42:264. PERSONNEL RELATIONS. 3 *credits.*

Prerequisite, 162 or equivalent. Analysis of management, union and employee objectives, attitudes and strategies as they affect the conduct of business. Stress placed on individually assigned readings and reports.

GRADUATE COURSES

42:449. EXECUTIVE DECISIONS AND OPERATIONS RESEARCH. 3 *credits.*

Theory underlying decision-making is considered with particular attention given to the quantification of the decision-making process. Operations Research is considered from the point of view of the manager supervising its use and how it can be used to aid in making executive decisions.

42:463. INDUSTRIAL RELATIONS. 3 *credits.*

The purpose of the course is to present the rights and duties of management in dealing with labor. Intensive study will be made in selected areas of personnel administration. The course will deal with administrative activity in terms of human relationships involved.

42:467. MANUFACTURING ANALYSIS. 3 *credits.*

This course develops an approach to the handling of manufacturing problems and explores such production management functions as process analysis and organization, the control of production operations, inspections, plant layout, production planning and control. The course integrates management and economic principles governing production.

42:498. SEMINAR IN INDUSTRIAL MANAGEMENT. 3 *credits.*

Research projects, group reports and discussions.

9

Areas of Postgraduate and Graduate Study

The College of Law
The Graduate Division

The College of Law

STANLEY A. SAMAD, LL.M., *Dean*

The College of Law was officially established as part of the University on September 1, 1959, in answer to the growing demand in Akron and surrounding cities for legal education opportunities. The historical roots of this college are in the Akron Law School which was founded in 1921 and produced two generations of distinguished members of the bench and bar.

Currently the College of Law has its offices and Law Library on the ground floor of the new University Library and classes are held principally in Kolbe Hall. Increasing numbers of postgraduate students, ambitious to receive their formal legal education, have created an educational need for additional classroom space. Future construction plans at the University include a building which will be used jointly by the College of Law and the College of Business Administration.

At the present time, the College of Law offers a plan of part-time study with all classes scheduled in the evening hours. Daytime courses will be considered in the future, since it appears that there is a substantial need for a program of full-time study.

The schedule of courses is now designed for part-time students, providing them a normal semester academic load of nine credit hours. The summer session is an integral part of the program.

Except in the case of transfer students admitted to advanced standing, the Bachelor of Laws degree may be obtained in four academic years, consisting of four fall semesters, four spring semesters and three summer sessions. Students are encouraged to follow this evening hour program so that they can continue their advantageous progression of subject matter.

Primary purpose of students enrolling in the College of Law is to accrue a fund of knowledge of law and jurisprudence, interlaced with a mature grasp of the ethics of the profession, enabling them to become private attorneys, officers of the courts and leaders in governmental affairs. The students are trained to develop their powers of legal analysis and reasoning and they are taught the technical skills of legal advocacy and legal draftsmanship. It is a goal of the College of Law that its graduates will be legal statesmen as well as defenders of their own clients.

Special attention is given to the development of practical skills. In the third and fourth year, the student is introduced to professional methods of solving legal problems. He participates in discussion groups and in scheduled seminars.

Every student in the College of Law enjoys reasonable freedom in the selection of elective courses throughout his years of study.

The curriculum is based on the casebook system, as opposed to the strictly textbook and lecture type of instruction. Following this system, actual court cases are explained and discussed; each student's professional judgment is developed in an atmosphere of modern legal reality.

Actual clinical training is gained by taking a required course in legal aid. A student works in the Legal Aid Society office nearest his residence under the supervision of the Society's counsel, interviewing clients, formulating courses of action and preparing necessary letters, pleadings and briefs. He learns the processes of law through actual experience and firsthand observation of the workaday activities of a lawyer. This course is a joint effort of the College of Law and the Legal Aid Societies in Summit and Stark Counties.

In addition to his formal courses of study, a law student participates in a Student Bar which is patterned after the Akron Bar Association; this is a valuable implementation of his professional training.

At all times, awareness of a lawyer's responsibilities in western civilization is imparted to the law student. He becomes equipped to function productively in a complex society, helping to design and operate the legal and social machinery in peaceable accordance with the rule of the law.

The College of Law has as its aim, the development of graduates who will serve as guardians of society's traditions and architects of its future.

REQUIREMENTS FOR ADMISSION

An applicant for admission to the College of Law desiring to become a candidate for the Bachelor of Laws degree must satisfy the following requirements:

1. He must be of good character.
2. He shall show evidence that he has received a Bachelor's degree from a

regionally accredited college or university in a field of study deemed appropriate by the faculty of the College of Law, with an academic average better than the minimum average required for such degree.

3. He must have taken prior to admission the Princeton Law Aptitude Test and earned a satisfactory score.

The procedures for securing admission are as follows:

1. Obtain an application form for the College of Law from the Admissions Office.

2. File with the Admissions officer two official copies of the transcript of the record from the institution which awarded the degree, at least one week prior to the official registration period published in the University Calendar.

3. Arrange to take the Princeton Law Aptitude Test which is given by the University, or submit evidence of the score if the test was taken elsewhere.

4. Arrange for a personal interview with the Dean of the College of Law.

All inquiries and correspondence pertaining to admission should be sent to:

The Admissions Office
The University of Akron
Akron 4, Ohio

ADMISSION TO ADVANCED STANDING

A law student who has completed part of his law course at a school on the approved list of the Section of Legal Education and Admission to the Bar, American Bar Association, and who is eligible for readmission to his former law school, may be admitted to advanced standing. A student desiring admission to advanced standing shall (1) obtain from the Dean of his former law school a letter setting forth the fact that he is eligible for further instruction, and consent to the transfer; (2) submit evidence of meeting the admission requirements of the University of Akron College of Law; (3) present an official transcript of all work completed at his previous law school. Credit to be given for the prior law school work shall be that determined by the Dean of the College of Law.

AUDITORS

An auditor is a student who, with the permission of the Dean of the College of Law, is enrolled for a course without credit. The auditor is required to do all the work prescribed for the regular student enrolled for credit except taking examinations. The fee for the auditor is the same as for a regular student.

STANDARDS OF ACADEMIC WORK

The following systems of grades is used in recording the quality of a student's academic work:

Grade		*Quality Points Per Credit*	*Grade*		*Quality Points Per Credit*
A	Excellent	4	D	Poor	1
B	Good	3	F	Failed	0
C	Satisfactory	2	I	Incomplete	0

Academic averages are computed by dividing the quality points achieved by the hours attempted. When a course is failed and repeated, the hours and the quality points involved each time are included in the computation as if the repeated course were an independent course.

A quality point ratio of less than 2 is unsatisfactory. A law student whose scholar-

ship is unsatisfactory may be placed on probation, suspended for a definite period of time or dropped from the University at any time by the Dean.

If a student withdraws from a course on the recommendation of the Dean it will not count as work attempted. If a student leaves a course without the recommendation of the Dean or is dropped from any course by the Dean, he is given a failing grade in the course and it is counted as work attempted.

REQUIREMENTS FOR A DEGREE

The degree of Bachelor of Laws is conferred upon students of good character who have been recommended by the Dean and faculty of the College of Law and who have:

1. Completed satisfactorily all required courses which shall include two seminars and enough electives to earn 80 credits and a noncredit course of a clinical nature in legal aid. The legal aid requirement may be waived by the Dean.

Those students who were enrolled in the Akron Law School prior to January 1, 1957 and who were in attendance during the 1959-1960 academic year shall be awarded the degree on the basis of completing 74 credits. Those students from the Akron Law School who entered after January 1, 1957 and who were in attendance during the 1959-1960 academic year shall be awarded the degree on the basis of completing 76 credits.

2. Attained at least a 2 average for all courses taken and at least a 2 average for the senior year.

3. Spent their last year in residence at the University unless excused by the Dean.

FEES AND EXPENSES

The University Catalog should be consulted for rules governing nonresident tuition and for special and miscellaneous fees that may be applicable.

A resident of Akron shall pay a fee of $27.00 per credit for all credit work.

A nonresident of Akron shall pay a fee of $32.00 per credit for all credit work.

Each student shall pay a library fee of $15.00 for each semester and a $5.00 fee for each summer session, irrespective of the number of credits for which he is enrolled.

REFUNDS

The University Catalog should be consulted for regulations regarding refunds. The schedule of refunds set out therein is as follows:

	Regular	*Summer*
First Week	80%	60%
Second Week	60%	20%
Third Week	40%	0
Fourth Week	20%	0
Thereafter	0	0

No refunds shall be issued when a student is dismissed or suspended from the College of Law for disciplinary reasons.

LOAN FUNDS

The University will assist worthy students to finance their education through its loan funds. Application should be made through the Office of the Bursar or the Director of Student Personnel well in advance of the beginning of each semester. Loans for emergency purposes will be considered during the academic year. Law students are eligible for loans under the National Defense Student Loan Program, subject to the availability of funds and the system of priorities established for this program.

LIBRARY

The law library is the laboratory of the College of Law and is most important in providing the law student with materials for research and study. The law library contains approximately 18,000 volumes. University libraries comprising more than 138,000 volumes are available to law students.

ENROLLMENT IN OTHER SCHOOLS

A student who is enrolled in the program leading to the Bachelor of Laws degree may not take work in any other school, college or course of instruction, unless he first obtains the written consent of the Dean. No student may attend a course designed as a review for the bar examination until he has completed all course requirements for the Bachelor of Laws degree.

BAR ADMISSION REQUIREMENTS

Each student entering the College of Law is encouraged to read Rule XIV of the Supreme Court of Ohio, ADMISSION TO THE BAR, or the comparable rule of court in the jurisdiction wherein he desires to take the bar examination and practice law.

The Supreme Court of Ohio requires that each student entering a law school shall file during his first semester in law school an application for registration as a law student, evidence of his meeting the pre-legal educational requirements established by the Rule, a legible set of fingerprints on a prescribed form and a filing fee of $10.00. As a condition for taking the bar examination, the applicant must file an application not less than 90 days prior to the date of the bar examination, a certificate of the College of Law that the student has completed or will complete all courses required by the Rule and a filing fee of $30.00. The Rule requires that a student must have had instruction in the following courses as a condition of taking the bar examination: Business Associations (including Agency, Partnerships and Private Corporations) Constitutional Law, Contracts, Criminal Law, Equity (including Trusts) Evidence, Negotiable Instruments, Pleading and Practice, Torts, and Wills. Further, the student must be certified as having had instruction in Legal Ethics and in four electives from the list contained in the Rule.

The appropriate forms may be obtained from the College of Law on request. It is the responsibility of the student to initiate a request for, to execute properly, and to file timely, the requisite forms.

CLUBS

THE STUDENT BAR ASSOCIATION is designed to introduce law students to the professional responsibilities and problems they will face upon admission to the bar, to provide closer integration among the future lawyers and present-day leaders of the legal profession, to promote professional responsibility and to acquaint law students with the opportunities and obligations to improve the administration of justice through the organized bar. In addition, the Student Bar Association provides a form of student government and promotes good fellowship.

An appellate moot court program known as THE CASE CLUB is offered to all students. The Case Club has as its purpose the development of skills in legal research, brief writing and oral advocacy before a moot appellate tribunal. The Case Club is student-managed.

Student organizations sponsored by the Evening and Adult Education Division of The University of Akron are available to law students.

BOOK AWARDS

The W. H. Anderson Company, Publisher, awards to the highest ranking student in Corporations each year a copy of ANDERSON'S OHIO CORPORATION DESK BOOK, and to the highest ranking student in Pleading and Practice a copy of LEYSHON'S OHIO PRACTICE MANUAL, Second Edition.

The Lawyers Co-operative Publishing Company and Bancroft-Whitney Company, joint publishers of AMERICAN JURISPRUDENCE, award to top ranking students in about twenty courses a specially bound copy of the equivalent title from their multi-volume publication.

The Bureau of National Affairs, Inc. awards a year's complimentary subscription to THE UNITED STATES LAW WEEK to a graduating student who, in the judgment of the faculty, has made the most satisfactory progress in his senior year.

CURRICULUM

First Year

First Semester		Credits	Second Semester		Credits
50:201*	Legal Method	2	50:201*	Legal Method	2
50:211*	Contracts I	3	50:212*	Contracts II	3
50:215*	Legal Research	1	50:214*	Property I	3
50:217*	Torts I	3	50:215*	Legal Research	1
			50:216*	Legal Writing	1
			50:218*	Torts II	2

Summer Session: 50:223* Legislation ..... 3 Credits

Second Year

50:219*	Agency-Partnership	3	50:220*	Corporations	4
50:225*	Property II	3	50:226*	Property III	3
50:235*	Code Pleading	3	50:243*	Wills	2

Summer Session: Electives ..... 2-3 Credits

Third Year

50:227*	Equitable Remedies	3	50:230*	Commercial Transactions	4
50:233*	Evidence I	2	50:234*	Evidence II	2
50:236*	Constitutional Law	4	50:238*	Criminal Law	3

Summer Session: Electives or Seminars ..... 2-3 Credits

Fourth Year

50:228*	Legal Profession	1	50:242*	Trial Practice	3
50:241*	Trusts	3		Electives or Seminars	5-6
	Electives or Seminars	5			

ELECTIVES AND SEMINARS

		Credits			Credits
50:244	Federal Jurisdiction and Procedure	3	50:257	Trade Regulations	3
50:250	Conflict of Laws	3	50:258	Security Transactions	3
50:251	Future Interests	2	50:261	Seminar in Administrative Law	2
50:252	Creditors' Rights	3	50:262	Seminar in Estate Planning	3
50:253	Municipal Corporations	2	50:263	Seminar in Patent, Trademark and Copyright Law	2
50:254	Domestic Relations	2	50:264	Federal Income Taxation	3
50:255	Research Problems	1-3	50:266	Seminar in Jurisprudence	2
50:256	Restitution and Damages	2	50:268	Seminar in Labor Law	2

* Required courses.

COLLEGE OF LAW

FIRST YEAR—REQUIRED COURSES

50:201. LEGAL METHOD. 2 *credits.*
Legal method; the formulation and operation of legal arguments based on cases and statutes.

50:211. CONTRACTS I. 3 *credits.*
Formation of simple contracts. Consideration. Beneficiaries. Assignments.

50:212. CONTRACTS II. 3 *credits.*
Conditions. Performance and breach. Illegal contracts. Discharge. Statute of frauds.

50:214. PROPERTY I. 3 *credits.*
Ramifications of the possession concept, means by which title may be obtained, what constitutes a fixture and the rights and duties of various parties with respect to emblements.

50:215. LEGAL RESEARCH. 1 *credit.*
To acquaint the student with the various kinds of legal materials and to instruct him in their use.

50:216. LEGAL WRITING. 1 *credit.*
Integration of methods of research and skill in legal problem-solving with communicative skills in the preparation of legal memoranda and briefs.

50:217. TORTS I. 3 *credits.*
A survey of basic tort law with consideration given to the impact of insurance and modern notions of allocating the cost of unintentionally caused harm on tort doctrines keyed to negligence.

50:218. TORTS II. 2 *credits.*
Continuation of Torts I.

50:223. LEGISLATION. 3 *credits.*
To provide an understanding of the function and methods of the legislative process and the organization of legislative bodies. Structure of legislatures and their committees, the parts comprising a statute, drafting, legislative investigation, lobbying, legislative procedure, sanctions and statutory interpretation.

SECOND YEAR—REQUIRED COURSES

50:219. AGENCY-PARTNERSHIP. 3 *credits.*
Vicarious liability. Relationships of master and servant, principal and agent and problems of the independent contractor. Scope of employment. Authority and apparent authority. Misrepresentation by an agent. Undisclosed principal. Ratification. Elements of partnership.

50:220. CORPORATIONS. 4 *credits.*
A study of the allocation of corporate risk, control and profits, with attention given to the divergent problems of the public issue and the close corporation.

50:225. PROPERTY II. 3 *credits.*

History of land law (beginning with the Norman Conquest); the types of estates in land, freehold and nonfreehold; concurrent ownership; future interests before and after the Statute of Uses; the Statute of Frauds; methods of conveyance; the mortgaging of real estate; recording, title registration; covenants; and adverse possession.

50:226. PROPERTY III. 3 *credits.*

Landlord-tenant relationship, the scope and character of legislation restricting land use, easements, profits, licenses, rights incident to land ownership and law applicable to the insuring of real estate.

50:235. CODE PLEADING. 3 *credits.*

Pleading under modern codes and rules. Petition. Answer. Reply. Motions and demurrers. Parties. Joinder. Amendment. General rules of pleading.

50:243. WILLS. 2 *credits.*

Testate disposition of property. Testamentary capacity. Execution and revocation of wills. Some phases of administration of estates. Intestacy.

THIRD YEAR—REQUIRED COURSES

50:227. EQUITABLE REMEDIES. 3 *credits.*

Equitable remedies. Specific performance, reformation, rescission, restitution, injunction, bill of peace, interpleader, quiet title and declaratory judgment.

50:230. COMMERCIAL TRANSACTIONS. 4 *credits.*

Sale of goods. Use of negotiable instruments in sales transactions or otherwise. Warranties. Security. Risk of loss. Negotiability concept. Formal requirements of a negotiable instrument. Indorsements. Rights and liabilities of the parties to the instrument. Uniform Commercial Code.

50:233. EVIDENCE I. 2 *credits.*

Determination of facts: judicial notice, burden of proof and presumptions. Problems of remoteness and prejudice. Examination of witnesses. Competency and privilege. Opinion evidence. Hearsay rule and its exceptions. Principles relating to writings. Parol evidence rule. Illegally obtained evidence.

50:234. EVIDENCE II. 2 *credits.*

Continuation of Evidence I.

50:236. CONSTITUTIONAL LAW. 4 *credits.*

Judicial function in constitutional cases. The federal system. Powers delegated to the national government. Powers of the states as affected by delegation to national government. Limitations of powers of government. Political and civil rights. Amendments.

50:238. CRIMINAL LAW. 3 *credits.*

Nature and source of criminal liability. The act. Mental conditions requisite to criminal responsibility. Specific crimes and defenses thereto. These materials are studied in the light of modern trends and needs.

FOURTH YEAR—REQUIRED COURSES

50:228. LEGAL PROFESSION. 1 *credit.*

The legal profession as an institution. Professional responsibility. Duties and privileges of members of the legal profession.

50:241. TRUSTS. 3 *credits.*

Nature of a trust. Creation and elements. Comparison with other devices. Charitable trusts. Resulting and constructive trusts. Administration of trusts. Liabilities to third persons. Transfer of beneficial interests. Termination.

50:242. TRIAL PRACTICE. 3 *credits.*

Judicial power, jurisdiction and venue. Beginning a suit. Process. Discovery before trial and pre-trial hearings. Continuances. Judgments without trial of facts. Right to, and incidents of, jury trials. Verdicts. Judgments notwithstanding the verdict. New Trials. Nature and effect of judgments.

ELECTIVE COURSES

50:244. FEDERAL JURISDICTION AND PROCEDURE. 3 *credits.*

The operation of the federal courts. Jurisdictional problems regarding the subject matter of the action, the amount in controversy and removal of actions from state courts. Relationships between state and federal courts. Special procedural problems regarding process, venue and joinder of parties and claims. Appellate jurisdiction and procedure. Original jurisdiction of the Supreme Court.

50:250. CONFLICT OF LAWS. 3 *credits.*

Questions of law applicable in situations involving more than one state, in contracts, domestic relations, estates, judgments, procedure, property and torts.

50:251. FUTURE INTERESTS. 2 *credits.*

To examine the nature and types of future interests in property and their creation by inter-vivos and testamentary acts. Considerable attention is given to the rule against perpetuities and to the laws bearing upon powers of appointment.

50:252. CREDITORS' RIGHTS. 3 *credits.*

Enforcement of judgments. Execution, attachment and garnishment. Creditors' bills. Fraudulent conveyances. General assignments for benefit of creditors. Creditors' agreements. Bankruptcy.

50:253. MUNICIPAL CORPORATIONS. 2 *credits.*

Nature of municipal corporations. Home rule. Creation. Annexation. Powers. Officers. Zoning. Rights of abutters. Contractual and delictual liability. Dissolution.

50:254. DOMESTIC RELATIONS. 2 *credits.*

To instruct the student in the major areas of family law and to acquaint him with the theories that have influenced its development. Functions performed by various agencies which seek to effect a nonjudicial settlement of domestic problems.

50:255. RESEARCH PROBLEMS. 1 *to* 3 *credits.*

Individual research of a problem mutually agreeable to the student and the faculty member to whom the student is assigned. Admission is with the consent of the Dean.

50:256. RESTITUTION AND DAMAGES. 2 *credits.*

A comparison of the relief afforded in damage actions, with emphasis on the measurement of damages, with the relief afforded by such restitutionary devices as

quasi-contract, constructive trust, equitable lien, equitable and legal accounting. Rescission and reformation for fraud or mistake.

50:257. TRADE REGULATIONS. 3 *credits.*

Competition and monopoly under federal and state antitrust laws. Restraints of trade; monopolization; unfair methods of competition; mergers; refusals to deal; exclusive arrangements; patents; and antitrust aspects of foreign commerce.

50:258. SECURITY TRANSACTIONS. 3 *credits.*

A study of the principles of mortgage and suretyship relationships.

SEMINARS

50:261. SEMINAR IN ADMINISTRATIVE LAW. 2 *credits.*

A study of problems in the principal areas of Administrative Law with special emphasis on: (a) control of administrative action with reference to the three departments of government; (b) the administrative process, with emphasis on: compulsory process to obtain information, the informal administrative process, opportunity for hearing, adequacy of notice, the process of proof in "trial" hearings, the process of decision in "trial" hearings, administrative proceedings and Res Judicata. Projects: oral reports and a term paper or papers.

50:262. SEMINAR IN ESTATE PLANNING. 3 *credits.*

Analysis of relevant tax and nontax problems in planning estates and an examination of dispositive devices in accomplishing the objectives of estate planning. Project: drafting of an estate plan of some complexity.

50:263. SEMINAR IN PATENT, TRADEMARK AND COPYRIGHT LAW. 2 *credits.*

A study of the prerequisites to federal protection of patents, trademarks and copyrights, registration procedures, appeals from administrative actions, rights of patentees, trademark owners and copyright holders, grants, licenses and assignments, infringements, plagiarism and unfair competition.

50:264. FEDERAL INCOME TAXATION. 3 *credits.*

A consideration of the law of federal estate, gift, and income taxation and a survey of federal tax practice.

50:266. SEMINAR IN JURISPRUDENCE. 2 *credits.*

The course is designed to examine and to evaluate principal theories of legal philosophy. The theories are frequently considered in connection with concrete problems and are evaluated in the light of various goal values.

50:268. SEMINAR IN LABOR LAW. 2 *credits.*

Establishment of collective bargaining processes, including representation procedure under the Labor-Management Relations Act and the duty to bargain. The collective bargaining process together with grievance arbitration. Legal limitation on economic pressures of both management and unions, including interference with bargaining, strikes, picketing and boycotts and the use of the restraining order. Reporting procedures. Internal union control.

The Graduate Division

ERNEST H. CHERRINGTON, JR., Ph.D., *Dean*

Graduate study at The University of Akron began a few years after Buchtel College opened its doors and in 1880, two Masters of Arts degrees were conferred. These advanced degrees were awarded during the period when this institution patterned its courses after those offered at Yale and Middlebury, stressing principally the classics and rhetoric.

In 1924, the College of Education joined the Buchtel College of Liberal Arts in providing areas of advanced study and awarded its first Master's degree. In 1959, the College of Business Administration and the College of Engineering, the other Upper Colleges of the University, awarded their first Master's degrees.

1959 was a banner year at the University because it marked the time when the first Doctor's degrees were conferred. In 1960, accreditation was granted by the North Central Association of Colleges and Secondary Schools on the doctoral level. The Ph.D. degree is now awarded to those who follow a program of specified advanced study in Chemistry. The staff and facilities of the Institute of Rubber Research, which has conducted basic research on campus since 1943, are available to qualified students pursuing this objective. Such study is facilitated by the University's nearness to the home plants of the world's dominant rubber manufacturing companies. The library of the Division of Rubber Chemistry of the American Chemical Society is located on campus.

At the present time, with rapidly expanding needs and opportunities for graduate study at the University, Master's degrees can be earned by students with majors in the following areas: Biology, Business Administration, Chemistry, Economics, Education, Engineering, English, History, Physics, Political Science, Psychology and Speech.

Several other departments offer a limited amount of work which may be undertaken on the graduate level. Such courses may supplement the major program of study and constitute the minor subject for students who do not devote their attention to one academic field.

REQUIREMENTS FOR ADMISSION

An applicant for admission to graduate study must show that he has received the Bachelor's degree from a regionally accredited college or university. He should do this by asking the registrar of the institution which granted his Bachelor's degree to send his transcript to the Registrar of The University of Akron. If his graduate or undergraduate credits are at more than one institution, each of these institutions must provide official transcripts.

Each applicant should arrange for all transcripts to reach the Registrar no less than two weeks before the official registration period at the University, according to the calendar published in the current University catalog. Failure to do so may result in an applicant's deferral to a later semester.

Applicants are expected to fill out their application forms in triplicate and include

complete descriptions of their academic background as well as statements about the graduate degrees which they hope to earn. It is essential that every student who wishes to qualify for an advanced degree indicate his intention at the earliest possible date. This facilitates his choosing the proper courses with the required credits for the completion of the specific degree.

The Dean of the Graduate Division, upon recommendation of the Dean of the college which the student expects to enter, will admit the applicant to graduate study if his transcript shows an overall quality point average of no less than 2.5 (2.0 is C; 3.0 is B), a quality point average of no less than 2.75 in the major field and the necessary background courses for the graduate program he wishes to pursue. Also, a student entering the Graduate Division must meet the specific entrance requirements of the individual college in which he will be studying. (described in Section VIII)

Applicants whose records fall short of the minimum requirements may be admitted only on a provisional status, in accordance with the policies described above. The Graduate Division reserves the right to require an applicant for graduate study to show sufficient proof that he has the proper background for successful advanced work. An applicant may be asked to take examinations related to his anticipated field of graduate study.

Mature individuals who do not meet the standard admission requirements but meet specific levels of achievements, may be admitted as casual students when recommended by the Dean of a College and the Dean of the Graduate Division. These applicants must submit full academic credentials as described above and demonstrate to the heads of their departments of graduate study that they have training which is equivalent to established prerequisites.

These casual students may be either studying for credit or noncredit. They are admitted only to those classes for which they have demonstrated a potential ability to pass the course.

Every person who wants to enroll for credit in a graduate course or for noncredit as an auditor of a graduate course must be admitted to the Graduate Division either as a graduate student or a casual student.

(For descriptions of terms and complete requirements for each college, see Sections V and VIII.)

THE MASTER'S DEGREE

General requirements for the degree of Master of Arts, Master of Science, or Master of Business Administration are as follows:

1. A minimum of 30 credits of graduate work.

2. A quality point ratio of at least 3.0 must be maintained in all work taken. No graduate degree credit will be given for completing courses numbered from 300 to 499 if the final grade earned is lower than 2.0. No more than six credits of academic work with a quality point average of 2.0 will be accepted in fulfillment of the minimum credit requirement for the degree. All other work presented must be at the 3.0 or 4.0 level of achievement.

3. A comprehensive final examination may be required. Such examination may be oral, written or a combination of both. Detailed information is available in the specific department in which the graduate work is taken.

4. A thesis or formal problem report, when required, must be prepared in accordance with the rules of the Graduate Faculty, and submitted in duplicate to the Dean of the College not later than May 15 of the year in which the degree is expected to be granted. These official copies will be bound and placed in the University Library. The

research project and thesis or report will comprise from two to six of the credits required for the graduate degree.

5. Up to a maximum of 10 credits (6 in Engineering) of graduate work taken at a properly accredited graduate school may be transferred in partial fulfillment of the requirements for the degree upon recommendation of the major department head and the Dean of the College with the approval of the Dean of the Graduate Division. All work so transferred must be of "A" or "B" quality and must form an integral part of the student's program of study in The University of Akron.

6. All work (including transfer credit) offered in fulfillment of the minimum credit requirement must have been taken within the five-year period immediately preceding the date on which the last requirement is completed. When graduate study is interrupted by military service the five-year limit may be extended by the amount of time in service to a maximum of three years.

7. Degree candidates must attend and participate in the Baccalaureate and Commencement exercises at which the degree is conferred and must discharge all University obligations.

8. Additional requirements, if any, are listed hereafter under the college in which the program contemplated is offered.

MAJOR AND MINOR

The program of study leading to a graduate degree may be composed of work in one or more departments of the University depending upon the purpose and need of the student.

If it is agreed in conference with the major department head that some work will be taken in other departments, the minor or minors should be selected and planned to constitute an integrated program of advanced study. Furthermore, the student must demonstrate that he has had sufficient undergraduate work, or its equivalent, in the proposed major and minor areas to qualify him for study on the graduate level therein.

FEES

A resident of Akron who enrolls in graduate courses or in "200-500" level courses for graduate credit shall pay a fee of $22.00 per credit for all such credit work.

A nonresident of Akron who enrolls in graduate courses or in "200-500" level courses for graduate credit shall pay a fee of $27.00 per credit for all such credit work.

An auditor shall pay the same fee as a student enrolled for credit.

Students taking work for graduate credit shall be subject to whatever other special and miscellaneous fees published in the University Catalog may be applicable to their respective cases.

FELLOWSHIPS AND SCHOLARSHIPS

A number of scholarships and fellowships are available for graduate study leading to the Master of Science or Doctor of Philosophy degree in rubber and polymer chemistry. They range in amount up to annual stipends of $2,200. In addition, tuition and fees may be remitted by the University to the recipients of some fellowships in return for nine hours of work per week as laboratory assistants.

Several research assistantships, carrying stipends of $3,300 to $3,600 per year, are offered jointly by the Institute of Rubber Research and the Chemistry Department. Recipients devote about 20 hours per week to work on sponsored research contracts and about 15 hours per week to undergraduate laboratory supervision. Frequently the contract research performed is applicable, at least in part, to the requirements for a gradu-

ate degree. Enrollment in evening graduate courses usually enables the research assistant to complete the work for the Master's degree in two years.

(For further information concerning financial assistance available to students see Section XII.)

ADVANCEMENT TO CANDIDACY

A graduate student who wishes to qualify for an advanced degree should make his desire known to the head of his major department during, if not prior to, his first semester of enrollment in graduate courses. At that time his complete academic record will be reviewed by the dean of the college or the department head, and his program of study will be outlined provided he meets the standards set forth in this catalog.

A student working toward the Doctor's degree will file with the Dean of the Graduate Division an application for advancement to candidacy upon successful completion of his comprehensive examinations. The application will bear the approval of the major department head and will list all requirements that remain to be completed.

A student working toward the Master's degree will file with the Dean of the Graduate Division a similar application when he has completed approximately 20 credits of work. This application must be filed no later than the first week of the student's last semester. It must bear the recommendation of the dean or major department head, as well as the statement of work to be completed.

Each candidate for an advanced degree must file with the Registrar a diploma order not later than April 1 of the year in which the degree is expected, at which time he will pay thesis binding fees (currently $5.00 per copy) and thesis fee (currently $10.00). The latter fee will be collected only in cases where the thesis has not resulted from enrollment in a research course carrying the amount of credit assigned to the thesis.

BUCHTEL COLLEGE OF LIBERAL ARTS

THE DOCTOR OF PHILOSOPHY DEGREE

Programs of advanced study leading to the Ph.D. degree are offered in the Department of Chemistry in collaboration with the Institute of Rubber Research. The degree will be awarded to students who show a mastery of the field, who demonstrate their ability to pursue independently and carry to successful conclusion a significant piece of original research, and who have met the following requirements:

1. An applicant for admission to the program must meet all general requirements for admission to the Graduate Division and, further, may be required to prove that he has a satisfactory background by passing such examinations as the Graduate Faculty may prescribe. Otherwise, the applicant, if admitted, will be placed on provisional status by the Dean of the Graduate Division.

2. The candidate for the degree must spend at least one calendar year in full-time residence research.

3. The candidate for the degree must complete satisfactorily in the judgement of the Head of the Chemistry Department and the Dean of the Graduate Division a minimum of 48 credits in graduate courses. Twelve credits a semester shall be considered a normal load. At least 24 credits of graduate course work must be completed at The University of Akron.

4. The candidate for the degree must give evidence of ability to use in his work at least two modern foreign languages approved by the head of the Chemistry Department.

Language examinations are given in October and in January on a date announced by the Department Head. Students should prepare for and complete these examinations early in their programs.

5. Cumulative examinations are given monthly during the academic year. The candidate is urged to begin to take these examinations early in his graduate program and must pass eight of these examinations as a degree requirement. The candidate will also be required to pass an oral examination on his research dissertation upon its completion.

6. The candidate for the degree will be required to prepare a dissertation based upon original research which has been approved by the head of the Chemistry Department. The dissertation must be a contribution to knowledge worthy of publication and unrestricted in circulation except for unforeseen limitations that may arise out of national security regulations. The dissertation, prepared in accordance with the rules of the Graduate Faculty, must be submitted in duplicate to the Dean of the College no later than May 15 (of the year in which the degree is desired) bearing the approval of the adviser and department head.

These official copies will be bound and placed in the University Library. All dissertations will be microfilmed and copies will be available through University Microfilms, Inc., Ann Arbor, Michigan. Credit for the dissertation will be established by enrollment in Chemistry 401, and shall be equivalent to 36 credits of graduate work and shall be in addition to the 48 credits of graduate courses mentioned in "3." The amount of credit for the dissertation in each academic semester or term shall be determined by the head of the Chemistry Department.

7. In general, the candidate must complete the work and examinations for the degree within ten years from the date of admission, unless excused from this requirement by the head of the Chemistry Department and the Dean of the Graduate Division.

THE MASTER'S DEGREE

Programs of advanced study leading to the Master's degree are offered by the Departments of Biology, Chemistry, Economics, English, History, Physics, Political Science, Psychology, and Speech. Before undertaking such a program the student must show that he has:

1. Met the general requirements for admission to the Graduate Division.

2. Met the standard requirements for an undergraduate major in the area of proposed graduate specialty or that he has performed work which the Department Head approves as equivalent to an undergraduate major.

General requirements for the degree are listed on preceding pages.

Additional requirements in effect in the several departments offering graduate programs follow:

BIOLOGY: Research and thesis 6 credits. A minor may be taken in approved graduate courses, including education. Participation in seminars and demonstration, prior to last semester of enrollment, of reading proficiency in a foreign language appropriate to the field of study. Summer study at a biological station recommended.

CHEMISTRY: A Minimum of 12 credits of work, including at least two credits of laboratory must be offered from the following list of courses: 307, 309, 311-312, 319-320, 321-322, 331-332, 303-304, or 333-334, 335-336, 337-338. The research project (Enrollment in 365) and resulting thesis will constitute four to six of the credits required for the degree.

Attendance and participation in seminar-type discussions scheduled by the department are required. Demonstration, prior to last semester of enrollment, of reading, proficiency in a foreign language appropriate to the field of study.

ECONOMICS: The thesis project normally will constitute four of the required credits.

ENGLISH: Unless previously taken, the following courses must be included in the program: 201, 209, 297-298. Three credits will be earned in 301. At least half of the work taken must be in 300 level courses, and a minor of up to 9 credits in an allied area may be included. Demonstration, prior to last semester of enrollment, of reading proficiency in a foreign language appropriate to the field of study.

HISTORY: Completion of 301 for a total of three credits; a comprehensive examination covering three fields to be determined in conjunction with the departmental adviser; demonstration, prior to the last semester of enrollment, of reading proficiency in a foreign language appropriate to the field of study.

PHYSICS: The following courses must be included in the program: 321, 322, 324, 360. In addition each student will complete one of the following sequences:

1. 231, 333, 335, 336.
2. 231, 333, 336, 337.
3. Other sequence acceptable to adviser. Comprehensive examination.

POLITICAL SCIENCE: Completion of 311 for a total of three credits.

PSYCHOLOGY: Completion of 300, 400 and 402; oral examination.

SPEECH:

A. Public Address programs will include 390, 391, 392, 393, 397, 399, 3 credits in advanced theatre, 3 credits in advanced speech correction, 7:221 or 222 or 223, 7:397-398, 12:222 or 223, 12:242.
B. Theatre programs will include 262, 265, 267, 361, 365, 366, 367, 368, 397, 399.
C. Speech Correction programs will include 277, 297, 371, 372, 373, 374, 397, 399, 3:251, Psychology of Speech.

THE COLLEGE OF ENGINEERING

A program of advanced study leading to the Master of Science in Engineering is offered.

In addition to the general requirements for admission to the Graduate Division, an applicant for graduate study in Engineering must hold a Bachelor's degree in a curriculum accredited by the Engineers' Council for Professional Development at the time of his graduation. Applicants holding other Bachelor's degrees in Engineering will be considered for provisional graduate status.

Additional College requirements may be specified.

In addition to the general requirements for the degree, which are listed on preceding pages, the student must include in his program approved courses as follows:

a. 5 to 10 credits in Mathematics.
b. 1) 5 to 10 credits in Physics and/or
   2) 5 to 10 credits in Chemistry.
   Limit of 15 in a. and b.
c. At least 15 credits in Engineering courses including the following courses:
   33:301. Computers and Computer Methods, 3 credits.
   33:303. Data Analysis, 3 credits.
d. The remaining credits in approved Engineering courses.

THE COLLEGE OF EDUCATION

Programs of advanced study leading to the degree of Master of Arts in Education and Master of Science in Education are offered.

Students who expect to earn the Master's degree for advancement in the field of teaching must have met the general requirements for admission to the Graduate Division and must be qualified to hold a standard teaching certificate. Exceptions to this latter requirement will be made for qualified students who do not wish to teach or perform duties in the public schools, provided they present or acquire an appropriate background of study or experience. Students who expect to earn the Master's degree in personnel and administration also should have some successful teaching experience. The major field quality point average requirement will apply to all work taken in the professional sequence including general psychology. A physical examination may be required if and when indicated. Any student who exhibits a deficiency in English or other skills may be required to correct same before recommendation for an advanced degree.

The general requirements for the degree, listed on preceding pages must be met.

All graduate degree programs must be approved by the Dean of the College of Education and must include the following courses which will comprise 9 of the 30 credits required:

27:300 Philosophies of Education .....3 credits
27:301 Developmental Procedures in Learning .....2 credits
27:303 Techniques of Research .....2 credits
27:499 Research in Education .....2-4 credits

In addition to the required courses listed above the following course lists are published as guides to graduate students selecting work in areas of their interest.

ELEMENTARY EDUCATION

Required:

27:314 Evaluation and Diagnosis of Learning Problems .....3 credits
27:330 Elementary School Curriculum and Instruction .....2 credits
27:436 Seminar in Elementary Education .....4-8 credits

Electives:

Sufficient to make 30 credits which may include up to 12 credits in pertinent electives from course offerings outside the College of Education.

This is intended primarily for the student who expects to progress as a teacher in elementary schools. Students who look forward to an elementary school principalship will qualify by electing courses in Administration.

SECONDARY EDUCATION

Required:

27:302 Principles of Guidance .....2 credits
27:319 Secondary School Curriculum and Instruction .....2 credits
Graduate study in subject field (6 credits of 200 level courses will be accepted) .....9-14 credits

Electives:

27:308 Advanced Child & Adol. Psych. .....2 credits
27:314 Evaluation and Diagnosis of Learning Problems .....3 credits
27:320 Secondary School Administration .....2 credits
27:437 Seminar in Secondary Education .....2-6 credits

ELEMENTARY SCHOOL PRINCIPAL

Required:

27:322 Supervision of Instruction .....3 credits
27:330 Elementary School Curriculum and Instruction .....2 credits
27:331 Elementary School Administration .....2 credits
27:345 Principles of Educational Administration .....3 credits
At least two (2) additional credits from courses in
Administration, Supervision and Curriculum .....2 credits

Electives:

Any other courses to make minimum of 30 credits which may include up to 6 credits in pertinent electives from course offerings outside College of Education. The following courses in Education are recommended:

27:350 Legal Basis of Education .....2 credits
27:352 Principles of School Finance .....2 credits
27:354 School and Community Relations .....2 credits
27:314 Evaluation and Diagnosis of Learning Prob. .....3 credits
27:420 School Building and Construction .....2 credits
27:436 Seminar in Elementary Education .....2-4 credits

SECONDARY SCHOOL PRINCIPAL

Required:

27:302 Principles of Guidance .....2 credits
27:319 Secondary School Curriculum and Instruction .....2 credits
27:320 Secondary School Administration .....2 credits
27:322 Supervision of Instruction .....3 credits
27:345 Principles of Educational Administration .....3 credits

Electives:

Any other courses to make a minimum of 30 credits, which may include up to 6 credits in pertinent electives from course offerings outside College of Education. The following courses in Education are recommended:

27:350 Legal Basis of Education .....2 credits
27:352 Principles of School Finance .....2 credits
27:354 School and Community Relations .....2 credits
27:420 School Building and Construction .....2 credits
27:437 Seminar in Secondary Education .....2-6 credits
27:314 Evaluation and Diagnosis of Learning Problems .....3 credits
27:441 Evaluating Educational Institutions .....2 credits

SCHOOL SUPERINTENDENT

Required:

27:345 Principles of Educational Administration .....3 credits
27:322 Supervision of Instruction .....3 credits
27:319 Secondary School Curriculum and Instruction .....2 credits
27:330 Elementary School Curriculum and Instruction .....2 credits
27:350 Legal Basis of Education .....2 credits
27:352 Principles of School Finance .....2 credits
27:420 School Building and Construction .....2 credits
At least eight (8) additional credits in courses in
administration and supervision .....8 credits

Electives:

Any other courses considered necessary or desirable by student, with advice of his counselor, which may include up to 6 credits in pertinent electives from course offerings outside College of Education.

SUPERVISOR

Required:

27:319 Secondary School Curriculum and Instruction .....2 credits
27:322 Supervision of Instruction .....3 credits
27:330 Elementary School Curriculum and Instruction .....2 credits

Electives:

Any other courses to make minimum of 30 credits which may include up to 6 credits in pertinent electives from course offerings outside College of Education. The following courses in Education are recommended:

27:314 Evaluation and Diagnosis of Learning Problems .....3 credits
27:320 Secondary School Administration
or Elementary School Administration depending
27:331 upon level for which preparing .....2 credits
27:436 Seminar in Elementary Education .....2-6 credits
27:345 Principles of Educational Administration .....3 credits
27:437 Seminar in Secondary Education .....2-6 credits

Supervisory certificates are issued for the elementary and the secondary school levels. Details of the requirements may be obtained in consultation with an adviser. The School Superintendent certificate is valid for supervisory duties at either level.

EXECUTIVE HEAD

Required:

27:345 Principles of Educational Administration .....3 credits
27:322 Supervision of Instruction .....3 credits
27:319 Secondary School Curriculum and Instruction .....2 credits
27:330 Elementary School Curriculum and Instruction .....2 credits
27:350 Legal Basis of Education .....2 credits
27:352 Principles of School Finance .....2 credits

Electives:

Any other courses to make minimum of 30 credits, which may include up to 6 credits in pertinent electives from course offerings outside College of Education. The following courses in Education are recommended:

27:320 Secondary School Administration .....2 credits
27:331 Elementary School Administration .....2 credits
27:420 School Buildings and Construction .....2 credits
27:436 Seminar in Elementary Education .....2-6 credits
27:347 Seminar in Secondary Education .....2-6 credits
27:441 Evaluating Educational Institutions .....2 credits
27:445 Administration of Student Personnel Programs .....2 credits

GUIDANCE COUNSELOR

Prerequisites:

30:107 Psychology of Childhood and Adolescence .....3 credits
30:206 Normal and Abnormal Personality .....3 credits

Required:

27:302 Principles of Guidance .....2 credits
27:304 Techniques of Guidance .....2 credits
27:309 Vocational Guidance and Occupational Information .....2 credits
27:310 Counseling Interview .....2 credits
27:314 Evaluation and Diagnosis of Learning Problems .....3 credits
27:315 Practicum in School Counseling .....1-2 credits
27:319 Secondary School Curriculum and Instruction .....2 credits
(or 27:330)
27:320 Secondary School Administration .....2 credits
(or 27:331)
27:327 Group and Educational Guidance .....2 credits
27:330 Elementary School Curriculum and Instruction .....2 credits
27:331 Adult Education .....2 credits
30:204 Psychology of Exceptional Children & Adolescents .....3 credits
30:208 Techniques in Guidance and Counseling .....2 credits
30:304 Advanced Developmental Psychology .....3 credits

Electives:

Choice of graduate education courses in administration, curriculum and instruction or of 200 or above level courses in sociology, economics, labor relations, or psychology if the candidate has the proper undergraduate program.

TEACHER OF SLOW-LEARNING CHILDREN

Prerequisites:

30:204 Psychology of Exceptional Children & Adolescents .....3 credits

Required:

27:360 Developmental Characteristics of Slow-Learning Children .....3 credits
27:361 Principles of Teaching Exceptional Children .....3 credits
27:362 Methods and Materials for Teaching Slow-Learners .....2 credits
27:363 Arts and Crafts for the Slow-Learner .....2 credits
27:364 Reading and Speech for the Slow-Learner .....2 credits

The foregoing program meets the state certification requirements of fifteen credits of preparation beyond that necessary for a provisional certificate, including six to nine credits of psychological backgrounds and six to nine credits of methods.

VISITING TEACHER

The service of the Visiting Teacher includes working with individual children and their families when a child has difficulty such as maladjustment, failure to learn, or non-attendance. This service supplements the contribution of the teacher and other personnel and is carried out in cooperation with them. As a liaison service, it helps to integrate school and community services for the benefit of the child.

For those students seeking certification as a Visiting Teacher, the following requirements must be met:

1. Possession of a provisional or higher certificate valid for teaching in Ohio.
2. Evidence of at least one year of teaching experience.
3. The following courses of study:
   a. 30:204 Psychology of Exceptional Children and Adolescent and/or ..... 3 credits
      27:314 Evaluation and Diagnosis of Learning Problems ..... 3 credits
   b. 22:206 Community Organization ..... 3 credits
   c. 27:302 Principles of Guidance ..... 2 credits
   d. 27:345 Principles of Educational Administration ..... 3 credits
   e. 27:414 Orientation to Pupil Personnel Services ..... 2 credits
      and/or Seminar or Research in the field of social case work ... 2 credits
   f. Other appropriate Graduate level courses to make minimum of twenty credits.
4. In addition to the foregoing requirements students who wish to be candidates for the Master's Degree must satisfactorily complete the regular core requirements.
5. As in other graduate programs, selection of optional courses to meet program requirements will be done through the regular counseling procedure.

SIXTH YEAR PROGRAM

It is anticipated that those who elect the sixth year program in preparation for first level administrative positions will use the following courses as basic requirements:

27:350 Legal Basis of Education ..... 2 credits
27:352 Principles of School Finance ..... 2 credits
27:420 School Building and Construction ..... 2 credits
27:441 Evaluating Educational Institutions ..... 2 credits

The remainder of the program will be selected, with proper planning, from among courses in Education, Political Science, Sociology, Economics, Business Administration and other disciplines which might provide important understandings for those in administrative positions.

Those who elect the sixth year program in preparation for positions of Guidance Counselor will use the following courses as basic requirements:

27:414 Orientation to Pupil Personnel Services ..... 2 credits
27:445 Administration of Student Personnel Programs ..... 2 credits

The remainder of the program will be selected, with proper planning, from among the following:

27:350 Legal Basis of Education ..... 2 credits
27:354 School and Community Relations ..... 2 credits
27:356 Education and Social Trends ..... 2 credits
27:436 Seminar Elementary Education or ..... 2 credits
27:437 Secondary Education ..... 2 credits
27:441 Evaluating Educational Institutions ..... 2 credits
Economics or Sociology ..... 6 credits
Labor Management or Industrial Personnel Problems ..... 6 credits

For those who are preparing for positions of School Psychologist, the sixth year will be devoted to the Internship Program.

SCHOOL PSYCHOLOGIST

Prerequisites:

30:206 Normal and Abnormal Personality ..... 3 credits
30:107 Psychology of Childhood and Adolescence ..... 3 credits

Required:

27:330 Elementary School Curriculum and Instruction .....2 credits
27:331 Elementary School Administration .....2 credits
27:322 Supervision of Instruction .....2 credits
30:204 Psychology of Exceptional Children and Adoles. .....3 credits
30:207 Psychological Tests and Measurements .....3 credits
30:208 Techniques in Guidance and Counseling .....2 credits
30:304 Advanced Developmental Psychology .....3 credits
30:306 Individual Intelligence Testing I .....2 credits
30:307 Individual Intelligence Testing II .....2 credits
30:310 Theories of Psychotherapy .....2 credits
30:311 The Psychology of Individual Differences .....3 credits
30:320 Practicum in Clinical and Counseling Psychology .....3 credits

THE COLLEGE OF BUSINESS ADMINISTRATION

Programs of advanced study leading to the degree of Master of Business Administration are offered in the College of Business Administration. Before undertaking such a program the student must show that he has:

1. Met the general requirements for admission to the Graduate Division.

2. Met the standard requirements for an undergraduate major in the area of proposed graduate specialization or that he has completed in a satisfactory manner such background courses as may be prescribed by the faculty of the college to provide adequate basis for graduate study. The necessary background courses may total up to 30 credits of undergraduate level work for those whose academic records show no courses in economics or business administration.

3. The major field quality point average requirement will apply to all economics and business administration courses previously taken.

General requirements for the degree are listed on preceding pages. In addition to these the student must follow a graduate study program approved by the department in which he desires to pursue advanced study.

Upon completion of not less than 15 credits of graduate work with a point average of no less than 3.0 the student may apply for advancement to candidacy for the degree.

The degree program consists of work in three areas to be selected as follows:

1. Business Administration Core Courses
   a. Functional Courses consisting of three of the following:
      39:327 Accounting Management and Control .....3 credits
      40:374 Financial Management and Policy .....3 credits
      40:390 Marketing Management and Policy .....3 credits
      42:363 Industrial Relations .....3 credits
   b. Administration Courses as follow:
      40:366 Management Behavior-Methods .....3 credits
      40:369 Organizational Theory and Policy Formulation .....3 credits
2. General Courses as follows:
      40:350 Administrating Costs and Prices .....3 credits
      6:341 Economic Analysis .....3 credits
3. Concentration Courses amounting to 9 credits in one of the following areas:
   a. Accounting

b. General Business (including Marketing-Merchandising or Finance)
c. Industrial Management

Students with undergraduate majors in business administration may have some of the requirements under group 1. a. above waived, the credits to be made up in additional courses under group 2. Following course 6:241 such students should take either 6:291 National Income and Its Variation or 6:293 Development of Economic Thought.

GRADUATE COURSES

All courses bearing a course number higher than 299 carry graduate credit automatically upon successful completion. Courses numbered 300 to 399 are open also to senior undergraduate students of exceptional ability who, with approval of their advisers, wish to include a few such courses in their Bachelor's degree programs or wish to start on graduate degree programs. Courses numbered 400 to 499 are open only to students who hold the Bachelor's degree.

ACCOUNTING

39:399	39:421	39:427	39:498

BIOLOGY

3:367-368

CHEMISTRY

5:307-308	5:319-320	5:335-336	5:301-302	5:327-328	5:333-334
5:309	5:321-322	5:337-338	5:303-304	5:329-330	5:343-344
5:310	5:325	5:339	5:315-316	5:331-332	5:365
5:311-312			5:326		5:401

CIVIL ENGINEERING

34:302	34:303	34:304

ECONOMICS

6:341

EDUCATION

27:300	27:317	27:345	27:364
27:301	27:319	27:350	27:414
27:302	27:320	27:352	27:420
27:303	27:321	27:354	27:433
27:304	27:322	27:356	27:436
27:309	27:327	27:360	27:437
27:311	27:330	27:361	27:441
27:314	27:331	27:362	27:445
27:315	27:335	27:363	

ELECTRICAL ENGINEERING

35:300	35:301	35:302	35:303

ENGLISH

7:301	7:311	7:328	7:338	7:397
7:303	7:322	7:332	7:340	7:398

GENERAL BUSINESS

40:449	40:465	40:469	40:490
40:450	40:466	40:474	40:498

GENERAL ENGINEERING

33:301	33:303	33:310

HISTORY

12:301	12:311-312

INDUSTRIAL MANAGEMENT

42:407	42:463	42:498

MECHANICAL ENGINEERING

36:300	36:301	36:302	36:303	36:304	36:305

PHYSICS

20:314	20:322	20:335	20:338	20:351
20:315	20:324	20:336	20:340	20:352
20:321	20:333	20:337	20:341	20:360

POLITICAL SCIENCE

21:301	21:302	21:303	21:311	

PSYCHOLOGY

30:300	30:306	30:310	30:313	30:315	30:320
30:301	30:307	30:311	30:314	30:317	30:400
30:304	30:309			30:318	30:402

SPEECH

24:361	24:367	24:372	24:390	24:393
24:365	24:368	24:373	24:391	24:397
24:366	24:371	24:374	24:392	24:399

COURSES IN WHICH GRADUATE CREDIT MAY BE EARNED

Courses bearing course numbers from 200 to 299 inclusive are senior undergraduate courses. However, a graduate student, with the approval of his adviser and the department head concerned, may establish graduate credit through enrollment in certain courses numbered from 200-299 provided he:

1. Declares at registration his intention to earn graduate credit in the course.
2. Makes certain that the course is entered on his enrollment blank with a 500 instead of a 200 number (e.g., Course 39:230 taken for graduate credit would be entered as 39:530).

3. Pays the fee for graduate credit.
4. Informs the instructor at the first meeting of the class that he is enrolled for graduate credit.
5. Performs the additional assignments given him by the instructor (approximately one-third more work than is required of the undergraduate student).
6. Earns an "A" or "B" in the course.

The following 200 level courses may be taken for graduate credit:

ACCOUNTING

39:230 39:231-232 39:233-234 39:236 39:237-238

ART

2:203-204 2:209 2:225-226

BIOLOGY

3:207-208 3:218-219 3:251 3:256 3:258 3:266
3:215-216 3:235 3:255 3:257 3:265 3:267-268
3:217 3:248

CHEMISTRY

5:201

CIVIL ENGINEERING

34:201

ECONOMICS

6:204 6:242 6:293 6:295-296 6:298 6:299
6:239 6:260 6:294

EDUCATION

27:204 27:234 27:235

ENGLISH

7:201 7:205 7:209 7:213 7:217 7:222 7:240
7:202 7:207 7:212 7:214 7:221 7:223

GENERAL BUSINESS

40:247 40:264 40:277 40:291 40:296 40:297-298
40:250 40:268 40:279 40:293

HISTORY

12:218 12:222 12:225 12:228 12:245 12:253
12:219 12:223 12:227 12:242 12:246 12:254
12:251 12:261

INDUSTRIAL MANAGEMENT

42:256 42:260

LAW

50:220	50:253	50:261	50:266
50:223	50:254	50:264	50:268

MATHEMATICS

17:201	17:207	17:212	17:215	17:218	17:221
17:204	17:208	17:213	17:216	17:219	17:257
17:206	17:210	17:214	17:217	17:220	

MECHANICAL ENGINEERING

36:210

MODERN LANGUAGES

8:209-210	8:217-218	10:209-210	10:217-218
8:213-214	8:219-220	10:213-214	10:219-220

PHILOSOPHY

19:221-222 19:224 19:229 19:241 19:242

PHYSICS

20:211	20:215	20:218	20:222	20:231
20:212	20:216	20:219	20:224	20:235
20:213	20:217	20:221	20:225	

POLITICAL SCIENCE

21:201	21:205	21:207	21:212	21:220
21:202	21:206	21:211	21:213-214	21:243

PSYCHOLOGY

30:204	30:206	30:208	30:210	30:212	30:216
30:205	30:207	30:209	30:211	30:215	

SOCIOLOGY

22:202	22:206	22:213	22:216	22:219-220
22:204	22:210	22:215	22:217	22:221

SPEECH

24:244	24:267	24:272	24:277
24:262	24:270	24:273	24:290
24:265	24:271	24:274	24:297

10

Education for Many Others

The Evening College
The Summer Session
The Community College
and
Special Programs

Special attention has been given at The University of Akron to developing courses for the interest and enlightenment of busy adults, available for credit or noncredit in evenings or in summers.

Among leading educational institutions in the United States, The University of Akron is exceptional in keeping its doors open around-the-clock and around-the-calendar, "keeping the lamp of learning burning" for students of all ages, ambitions and interests.

The Evening College

WILLIAM A. ROGERS, Ed.M., *Dean*

The Evening College of the University is an extension of regular daytime college life on the campus. Credit courses have the same value whether taken in daytime or evening hours. Many of the daytime faculty members teach Evening College courses, so the calibre of work is identical.

When additional faculty members are needed in order to accommodate Evening College enrollment, part-time instructors are engaged. These are people of the community with full academic training and experience.

Typical enrollees in Evening College are described as follows:

1) Students who want to gain University credits, but for financial reasons hold daytime jobs, can begin or complete their education with Evening College courses.
2) Some students, in accepting part-time jobs, are requested by their employers to work during some of the daytime hours. In a case like this, a student could attend lectures in the morning, work a half-shift in the afternoon and return to the campus for lectures in the evening. The combination of day and evening classes is completely acceptable and the credits earned in Evening College have the same value as those earned in the daytime.
3) Many mature people, young or old, settled in their chosen professions, realize that they can gain promotions if they have additional college education. If they choose to spend their evening hours to improve themselves academically and professionally, they enroll in Evening College. They can be awarded any of the University degrees with sufficient credits earned in Evening College.

When Does Daytime End and Evening Begin on the University Campus?

Daytime classes ordinarily begin at 8:00 a.m. except in Summer Term when they begin at 7:40 a.m. Evening College classes begin as early as 4:00 p.m., but the heaviest enrollment in Evening College is in courses which begin at 6:00 or 6:40 p.m.

Is There Any Extracurricular Life For Evening College Students?

An Evening College Council of students directs the extracurricular affairs which are much like the extracurricular activities of the daytime college and in fact,

sometimes are part of the daytime schedule. For instance, an Evening College May Queen participates in the May Day celebration—an event annually celebrated in the Spring on the University campus.

Other organizations which have been established for the Evening College students include the national scholastic honorary fraternity, Alpha Sigma Lambda; the Evening College sorority, Gamma Beta; the Evening College fraternity, Chi Sigma Nu; and the Honorary Fraternity, Alpha Epsilon.

Bulletins with Evening College information may be obtained from the Evening College offices which are located on the ground floor of Buchtel Hall. These will tell about admission, prerequisites, student course loads, absences, withdrawals and grades.

A monthly publication called *Nite-Life* keeps Evening College students informed of current happenings on campus.

ENROLLMENT IN THE EVENING COLLEGE IS ABOUT 2800 STUDENTS, compared to the approximate enrollment of daytime students which is estimated at 3000. (These figures do not include students registered in Community College noncredit courses.)

The Summer Session

WILLIAM A. ROGERS, Ed.M., *Director*

For 40 years, the University has offered courses in the summer. Classes are now available in both daytime and Evening College, offering credits to be earned in the summer months. Also, there are noncredit courses offered during the summer season in Community College.

Summer courses for credit have been designed especially for the following groups:

TEACHERS—so that they may study during their summer vacations and earn credits leading to either a Bachelor's or a Master's degree. Programs are offered for teachers who wish to obtain emergency certificates or renew their teaching certificates.

Student teaching is scheduled as follows for the 1962 Summer Session:

Spicer Elementary, Barberton Elementary	June 11—July 20
Barberton High School	June 11—July 20
Akron Central High School	July 4—August 3
West Junior High School	June 4—August 3

(Requests for Student Teaching should be made to the Dean of the College of Education by May 15. A deposit of $10 is required with each application.)

REGULAR ENGINEERING STUDENTS—so that they may continue on schedule while studying on the cooperative program.

STUDENTS FROM OTHER COLLEGES AND UNIVERSITIES—so that they may take advantage of their summer vacations to work towards their chosen degrees. These students are classified as "transients" and they must present a letter from their institution indicating they are in good standing. Permission to enter is granted for the Summer Session.

HIGH SCHOOL GRADUATES—so that they may enter the University immediately after their graduation in June. They may take either credit or noncredit courses.

a) Credit courses are taken in accordance with the General College standards of admission. They are available to those who wish to accelerate their college training, enrolling in the regular courses of study.
b) Noncredit courses are offered for those recent high school graduates who want to improve their rates of reading and comprehension, writing ability or who want to learn such special skills as typing, notetaking and using the library. A review course in high school mathematics is offered, also. These noncredit courses are arranged by the Community College.

REGULAR STUDENTS AT THE UNIVERSITY OF AKRON—so that they keep on studying at the University around-the-calendar and accelerate their academic progress.

ADVICE to students who expect to earn degrees or certificates in Summer Session: If you expect to complete requirements for a degree or certificate at the close of 1962 Summer Session, indicate this to the Director during the first week of classes.

INFORMATION to those wishing to gain admission to the University's Summer Session: Applicants for credit courses in Summer Session must meet the same entrance requirements as for the regular academic year. (See Section V)

Administration of Summer Session courses for credit or noncredit, taken in daytime or evening, is under the jurisdiction of the Director of the Summer Session.

DORMITORY FACILITIES: Housing for men and women is available on the University campus during the summer. Availability and rates can be obtained from the office of the Director of Student Personnel. Estimated rates are as follows:

6 wks. — $50 8 wks. — $66 11 wks. — $90
(this does not include meals)

DATES of the University Summer Sessions for 1962:

First 6 weeks session	June 11—July 20
Second 6 weeks session	July 23—August 31
Eight weeks session	June 11—August 3

The Community College

WILLIAM A. ROGERS, Ed.M., *Dean*

Since 1946, The University of Akron has had an area of instruction known as the Community College which provides courses related to vocations and avocations, designed for widely diversified types of students and drawing an enrollment of students ranging from 8 to 71 years of age.

Community College courses impart valuable knowledge but they do not provide academic credit.

Admission to the Community College is not according to the Admissions standards for the academic areas of the University. One may enroll without a transcript of credits.

Permission to live in University housing is seldom granted to the Community College student unless he is from a foreign country, taking noncredit courses to prepare himself to take credit courses at The University of Akron.

The Community College calendar usually follows the calendar of the daytime college and the Evening College courses, offering classes on campus during the daytime hours and in the evening, as well as in both winter and summer.

Administration of the Community College courses is in the Community College office located on the ground floor of Buchtel Hall. Schedules of courses for Fall, Spring and Summer Session noncredit courses can be obtained here.

There is no comprehensive listing in this catalog of the Community College courses. However, in order to present an accurate description of its scope and diversification, a few of the more than 100 courses are listed as follows:

LANGUAGE—Elementary Arabic, Everyday Usage of French, German Conversation, Russian for Children, Spanish Simplified.

BUSINESS—Blueprint Reading, Automobile Dealers' Bookkeeping, Corrosion Fundamentals, Electronic Circuits, Heat Treatment of Metals, Real Estate Law, Introduction to Rubber Chemistry, Trigonometry.

SELF-IMPROVEMENT—Charm and Fashion for Women, Gregg Notehand, Interior Decorating, Investing for Tomorrow, Speed Reading, Vocabulary Improvement.

AVOCATIONAL—Ceramic Arts, Foods with a Flair, Millinery, Personalized Dressmaking, Photography.

Registration fees for Community College courses are usually $14 per course, with some exceptions. An additional $2 is charged for a parking permit.

A Community College course is not evaluated in terms of academic hours. Courses do not become part of a student's permanent record and they have no transfer value in terms of academic credit.

The Department of Special Programs . . . a part of the General College

The Department of Special Programs serves professional, educational and civic organizations in the Akron area, arranging workshops, institutes and conferences on the University campus where academic faculties and facilities are readily available.

This department was established in order to assist area groups whose members wished to update or improve their professional knowledge or subject of special interest, to exchange ideas with others in the same field and hear lectures by experts in the field.

This department is not to be confused with the Community College which is designed for the *individual student* who enrolls on his own in a continuing classroom noncredit course.

The Department of Special Programs provides services especially for *groups*. Organizations using these services in the past have included PTA's, National Secretaries Association, the Urban Leagues of Ohio, Akron Credit Bureau, National Accountants Association and American Society of Training Directors.

Since most of these programs cover a specific professional area, the Department of Special Programs often conducts the programs cooperatively with the corresponding academic department or college of the University.

Professional, vocational and civic groups which wish to utilize University facilities and personnel to set up a workshop, institute or conference should contact the head of the Department of Special Programs. Staff Members of this department will then work in conjunction with the related academic department or college to plan and develop the program.

II

Grades and Graduation

Grades are the most personal academic responsibility of each individual student. He may decide with his family what type of education to seek. He may be accepted by a Dean of the college which offers the training he needs. Subsequently he follows an adviser's or an instructor's advice as to which courses to take. But the exact level of his own academic excellence in every subject of instruction is up to the student himself—and nobody else.

At specified hours in designated classrooms, many students hear lectures, listen to regular assignments, study in their own fashion and apply themselves to lecture notes and textbook information. The quality of their concentration and attention is put to the test by periodic measurement. This oral and written testing results in a mathematical number called a grade.

The grade which every student achieves in each of his scheduled courses is of prime significance. A grade has a quality point value. It becomes part of a permanent academic record which is maintained in the office of the Registrar.

According to the quality point value of each grade for each course which he has completed, a student becomes either eligible or ineligible to remain at the University. Of those who are eligible, the students who maintain specified levels of scholastic achievement receive privileges to participate in extracurricular activities. Also, on the basis of their grades, they are given priority at registration-time and receive opportunities to take additional courses which will accelerate their academic progress. And at Commencement time, students whose academic average is 3.25 (B plus) or better are graduated "with distinction." They receive this special recognition because of academic achievement . . . namely, good grades.

At the University, many services are offered to aid each student to enroll in courses which are appropriate to the student's own ability. Extensive testing of enrollees helps their advisers know what subjects will afford proper, highly valuable education for the individual student. It is the aim of the University to offer higher education opportunities to as many people as possible. This automatically

includes the University's responsibility of guiding each individual into his most remunerative areas of study so that he assimilates knowledge to enrich his mind and equip himself to be a productive person, valuable in his chosen profession.

This basic endeavor to guide students is essential to the University's philosophy. Properly oriented students, enrolled in courses which utilize their native intellectual abilities, have the best chance of succeeding, not only during their college years, but also in the important years of the future.

A student's grades affect his academic progress in the following ways:

1) A student must present a record of his academic achievements in secondary school in order to be admitted to the University. (See Section V.)
2) A student must complete approximately 64 credit hours of study maintaining a quality point average of at least 2.0 (C) in order to be eligible to be promoted from the General College to an Upper College. Also, his acceptance is dependent on the approval of the Dean of the Upper College which he has chosen to enter. The Deans of Upper Colleges confer with the Dean of the General College and consult various heads of departments in which the student has taken courses. Any transfer from one Upper College to another is similarly conducted through the offices of the Deans and must be officially recorded in the office of the Registrar.
3) To complete Upper College requirements and receive a* Baccalaureate degree, a student should have at least 50% of his academic work in his selected major field. It is desirable, however, that he take not more than 75% of his total work in his major field. Also, each student must have attained a quality point average of at least 2.0 (C) in order to graduate.

Before a student registers for classes in any semester or has opportunity to earn grades, he must have a schedule approved by an adviser which specifies the exact subjects of instruction. Each subject of instruction has a name and a number. The name is self-explanatory and its accompanying number is a code which has been developed as a quick designation of two things: the area of study and its level of advancement.

In order to understand this abbreviated designation of courses, every student should understand the coding system, explained as follows:

CODING OF COURSES

A numerical code system is used on University schedules to indicate specific courses of study. The numbers preceding the colon designate the area of study and constitute a numerical abbreviation. For instance, chemistry courses are coded with a 5: and psychology courses use the number 30: as a code.

The numbers following the colon designate the exact subject of instruction within a given area of study. For instance, the basic course in chemistry is general inorganic chemistry, coded as 5:21-22. The most advanced course in the same department is doctoral research in chemistry, coded as 5:401.

* A Baccalaureate degree is the first degree earned by a person being graduated from a college or university.

Code numbers which relate to the area of study and are found *preceding* the colon are as follows:

0—Community College and Non-credit courses
1—General Studies
2—Art
3—Biology
5—Chemistry
6—Economics
7—English
8—French
10—German
11—Greek
12—History
13—Home Economics
16—Latin
17—Mathematics and Astronomy
18—Music
19—Philosophy
20—Physics
21—Political Science
22—Sociology
23—Spanish
24—Speech
27—Education
28—Geography
29—Health and Physical Education
30—Psychology
31—Nursing Education
33—Engineering, Basic
34—Engineering, Civil
35—Engineering, Electrical
36—Engineering, Mechanical
39—Accounting
40—General Business
42—Industrial Management
43—Secretarial Science
46—ROTC, Air
47—ROTC, Army
50—Law
60—Associate Studies

Code numbers which relate to the exact subject of instruction and are found *following* the colon are as follows:

1-99 General College Courses

100-199 Upper College (undergraduate)

200-299 Undergraduate courses for which either undergraduate or graduate credit may be earned.

300-399 Graduate courses for which a few undergraduates who have shown unusual ability may be accepted.

400-499 Graduate courses for which the prerequisite is the completion of requirements for the bachelor's degree.

500-599 Numbers assigned to undergraduate courses numbered 200-299 which are being taken for graduate credit.

Students at the University receive grades on classroom response and on written examinations during the progress of most courses. Mid-semester specific grades (called "mid-terms") are made available to the student by his instructor. At the end of the semester, the Registrar's office mails the semester grade reports to students at their home addresses.

Individual tests throughout the course are usually graded with percentage or letter marks. But permanent records are maintained with a quality point system indicating a student's academic level of achievement.

This method of recording grades is explained as follows:

THE GRADING SYSTEM

Percentage	*Grade*	*Quality Points per Credit*
93-100 inclusive	A	4
85-92 inclusive	B	3
77-84 inclusive	C	2
70-76 inclusive	D	1

Below 70	F	0
Conditioned*		
Failed		
Incomplete**	I	
Qualified***	Q	

* "Conditioned" means that although the semester's work is not of passing grade the deficiency may be made up without repeating the course in class. Failure to remove the deficiency satisfactorily by the close of the student's next semester in the University converts the grade to F. No higher grade than D is given for the removal of a "Condition."

The grade "Conditioned" may be given only for the first semester's work in a subject continuing through two or more semesters, such as first-year chemistry or first-year foreign language.

** "Incomplete" means that the student has done passing work in the course, but some part, for good reason, has not been completed. FAILURE TO MAKE UP THE OMITTED WORK SATISFACTORILY WITHIN THE FIRST HALF OF THE FOLLOWING SEMESTER CONVERTS THE GRADE TO F. A fee of $2 per course is charged each student for the removal of an "Incomplete."

*** The grade of "Q" (qualified) signifies competence as determined by examination in certain skill subjects as defined by the Dean of the college. The student's requirements for graduation are thereby reduced by the number of credits assigned to each course in which he has thus qualified, unless he elects to enroll for regular course credit, in which case the "Q" is replaced by the grade earned in the course.

Credit and Quality Point requirements for Graduation from each of the Upper Colleges:

Upper College	*Degrees granted*	*Credit hours required*	*Qual. Pt. Average Required*
Liberal Arts			
Humanities:	Bachelor of Arts	128	2.0
	Bachelor of Music	128	2.0
Social Sciences:	Bachelor of Science	128	2.0
	Bachelor of Science in Labor Relations	128	2.0
Natural Sciences:	Bachelor of Science	128	2.0
	Bachelor of Science in Medical Technology	128	2.0
Education	*Bachelor of Arts in Education	128	2.0
	*Bachelor of Science in Education	128	2.0
	*Bachelor of Science in Nursing	128	2.0
Business Administration	Bachelor of Science in Business Administration	128	2.0
	Bachelor of Science in Industrial Management	128	2.0
Engineering	Bachelor of Civil Engineering	151	2.0
	Bachelor of Electrical Engineering	151	2.0
	Bachelor of Mechanical Engineering	151	2.0

* Quality point average of 2.5 in major field is required.

ADDITIONAL REQUIREMENTS FOR GRADUATION

- A candidate for a degree is required to file an application with the Registrar by February 1 of his final undergraduate year.
- A candidate for a degree must spend his last year in residence (earning a minimum of 32 credit hours) at the University unless excused by the Dean of his college.
- A student must obtain permission of the Dean of his college before taking work simultaneously in another institution if he wants that work credited towards a degree at The University of Akron.
- A graduating student is required to participate in the Baccalaureate and Commencement exercises in order to receive his degree.

- A graduating student is required to discharge all individual obligations (financial, academic, etc.) to the University before being considered eligible to receive a degree.
- A student is expected to complete requirements for a Bachelor's degree in 10 calendar years from the date of his beginning the first semester of his education at the University. Adjustments of requirements for a student who is enrolled for more than 10 years must be made with the Dean of the Upper College which will grant the degree.
- A graduating student is expected to meet all requirements which were in effect at the time of his admission to the University.
- A student who expects to receive a second Bachelor's degree must earn a minimum of 32 credit hours which have not counted towards his first Bachelor's degree.
- A student will be graduated "with distinction" if he has a quality point average of 3.25 or higher and if he has earned 60 or more credits at the University and has satisfied all other requirements for graduation.

MODIFICATION OF STUDENT SCHEDULES

A student must enter a course before the end of the first week of the semester. A student may alter his schedule of courses for which he is registered only with the permission of his Dean.

If a student withdraws from a course with permission of his Dean, no record of failure appears on his record.

If a student leaves a course (i.e. "drops" a course) without the permission of his Dean or is dropped from any course by his Dean, he is given a failing grade in the course.

A student who is dropped from Army or Air Force R.O.T.C. for unsatisfactory work during a semester shall be dropped from the University with failing grades in those subjects which he is failing and withdrawn from those subjects in which he is passing.

CREDIT BY EXAMINATION

A student interested in earning credits by special examination may do so with the permission of the Dean of his college. The grade obtained in such an examination is recorded on the student's permanent academic record. The fee for a special examination is $8.00 per credit hour. Credit by examination is not permitted in the semester before graduation.

RE-EXAMINATION

A student does not have the privilege of requesting re-examination in order to raise a grade.

Students who have had difficulty in meeting specific course requirements will find that these following procedures can sometimes help them to re-establish themselves academically:

REPEATING COURSES*

1. A student who has attended the University prior to June, 1961 may repeat a course once in which he has received a grade of D, subject to these conditions:

a) The new or second grade only shall be counted in the student's total record.

b) The course may not be repeated in the semester in which the student is a candidate for graduation.

c) If the grade of D is earned in a course which the student has previously failed, he is not granted the privilege of repeating the course.

2. A student who has earned a failing grade may repeat a course once, subject to these conditions: (This rule became effective on September 1, 1961 for all *new* students and will become effective on September 1, 1962 for *all* students.)

a) A student who has attempted not more than 40 semester credit hours may repeat a course in which he has failed if he enrolls when advised and has permission of his Dean. If he passes the course with a grade of D or better on the second attempt, only the second grade earned will count. If he fails the course on the second attempt, both grades of F will count.

b) A student enrolled at the University must repeat a failed course in the next semester it is offered.

c) A student must repeat the exact course which he has failed and must take this course at The University of Akron.

Regulations at the University to which students are expected to know and heed:

ATTENDANCE

Students are expected to attend all class meetings for which they are registered. They may be dropped from a course by the Dean if they are repeatedly absent and the instructor recommends this action. Students can gain readmission only with the permission of the instructor and the Dean.

ACADEMIC AVERAGE

A student who fails to maintain a quality point average of 2.0 (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 also determined by the Dean of the college.

Students who have been dismissed from the University are not eligible to register for credit courses in daytime courses, Evening College or Summer Session.

DISCIPLINE

The University reserves the right to penalize any student whose conduct at any time is in its judgment detrimental to the institution.

* These procedures do not apply to students in The College of Law.

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Fees and Finances

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 such as private music lessons, thesis-binding, etc.

UNDERGRADUATE FEES

Fee for Akron residents per credit hour per semester (maintenance only) $11.00
Fee for nonresidents per credit hour per semester (maintenance plus tuition) 22.00

All new students entering the University's daytime courses for the first time are required to pay an application fee of $25. This fee is in effect only for the semester for which the student applies for admission. It is non-refundable except when the student is denied admission to the University. When a student is accepted, the amount of his application fee is regarded as a down payment on his fees and is deducted from the total amount assessed (i.e. tuition and maintenance) at the time of registration for this semester. (Note: This is not an *additional* fee to the newly enrolled student's undergraduate fees as listed above.)

Since 16 credit hours per semester constitute a regular academic load, most resident students pay $176 per semester for an undergraduate schedule. Most nonresidents carrying a regular load are assessed $352.00 per semester.

GRADUATE FEES

Fee for Akron residents per credit hour per semester $22.00
Fee for nonresidents per credit hour per semester 27.00

These fees are applicable to all courses numbered 300 and above for graduate or undergraduate students and applicable to courses numbered 200 to 299 if they are being taken for graduate credit.

POSTGRADUATE FEES

For the College of Law

Fee for Akron residents per credit hour per semester $27.00
Fee for nonresidents per credit hour per semester 32.00
Library fee, per semester 15.00
Library fee, summer 5.00

Fees are due at the beginning of each semester, payable in the Bursar's office. Students should pay at the time of registration. An additional $5.00 is charged each student who has not completed registration and payment of fees before the closing time of registration in the session in which he is to be enrolled.

VETERANS' EXPENSES

Disabled veterans of the Korea emergency who are eligible for admission to the University may register for courses without payment of fees, if they are certified by the Veterans' Administration.

Full payment of fees is required if the veteran does not have his Certificate of Eligibility at the time of registration. The cash payment will be refunded when the veteran presents his Certificate of Eligibility.

Non-disabled veterans of the Korea emergency must pay their fees at the time they register. They will receive specified allowances under Public Law 550.

Sons and daughters of deceased veterans covered under Public Law 634, must pay their fees at the time of registration. They will receive specified allowances under Public Law 634.

MUSIC FEES

For students enrolled for credit in these courses:

Band, Band Instruments, Chorus, Orchestra, Organ, Piano, University Singers, Violin, Voice ..... No Maintenance Fees or Tuition

For private lessons in Band instruments, Organ, Piano, Violin, Voice:

For students enrolled for three or more credit hours of class work in addition to the private lesson courses, per semester:

Two individual half-hour lessons per week—(4 cr. hrs.) $80.00
One individual half-hour lesson per week—(2 cr. hrs.) 40.00

For persons enrolled in less than three credit hours of class work in addition to the private lesson courses, per semester:

Two individual half-hour lessons per week $108.00
One individual half-hour lesson per week 54.00

THESIS AND BINDING

For candidates for advanced degrees (Payable at time of application for degree).

Thesis fee (when required) $10.00
Binding fee, per volume 5.00

Two volumes must be deposited in the University Library.

GRADUATION IN ABSENTIA

Fee $10.00

AUDITORS

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

COMMUNITY COLLEGE

A fee of $14.00 is charged for each Community College course unless otherwise noted in the circular printed each semester which describes the courses.

MISCELLANEOUS

One free transcript of record is furnished a student. A fee of $1 is charged for each additional copy.

A fee of $2 is charged for each two-year or three-year certificate.

A fee of $8 per credit is charged for each examination in college work not taken in course.

A change of schedule fee of $1 per course is charged each student who, after completing registration, enrolls for an additional or substitute course or section except when such change is made at the request of the dean having jurisdiction over the student.

A fee of $1 per test is charged each student who is given a make-up test after having been absent from an announced, full-period examination.

A fee of $2 per course is charged each student for the removal of an "Incomplete."

A rental fee of $1 per year plus a deposit of $1 is charged each student who engages a locker on campus.

A towel rental fee of $2 per semester is charged each student in physical education who uses locker room facilities in Memorial Hall.

PARKING FEES

Day students—enrolled for 7 or more credit hours	$10.00 (Per Semester)
enrolled for 6½ or less credit hours	5.00 (Per Semester)
Engineering Co-op students—enrolled in day classes only	5.00 (Per Period)
enrolled in day and evening classes	8.00 (Per Semester)
enrolled in evening classes only	3.00 (Per Semester)
Evening students	3.00 (Per Semester)
Summer Session students	3.00 (Per Session)
Community College	2.00 (Per Semester)

(All fees are subject to change without notice.)

RULES GOVERNING NONRESIDENT TUITION

Payment of non-resident tuition is required of those students who do not qualify as permanent residents of Akron, as defined by the University. A permanent resident, for the purpose of the University, is considered to be one who has established a bona fide domicile by the acquiring of a dwelling place in Akron and has formed the intent to make the City of Akron a permanent home for purposes other than attendance at The University of Akron. The qualifications are as follows:

1. For an unmarried student 20 years of age or under as of the first day of the semester for which he is registering, at least one parent or legal guardian must be a permanent resident within tbe corporation lines of Akron on the first day of the semester and must have been a permanent resident of Akron for the twelve consecutive months prior to the first day of the semester.
2. An unmarried student 21 years of age or over, or a married student of any age as of the first day of the semester for which he is registering must be a permanent resident within the corporation lines of Akron on the first day of the semester for which he is registering and must have been a permanent resident of Akron for the twelve consecutive months prior to the first day of the semester.
3. In case a qualified permanent resident of the City of Akron is appointed the guardian of a minor who would not otherwise qualify as a permanent resident, for purposes other than to avoid payment of tuition, the residence shall be considered to be in Akron only after the expiration of one year after such appointment.

A student's correct residency status as of the first day of the semester shall not be considered changed any time within the semester.

A student whose original registration was as a nonresident shall be presumed to be a nonresident thereafter unless it can be clearly proved by him to the University's satisfaction that his former domicile has been abandoned and a new domicile established in the City of Akron and maintained for at least 12 consecutive months for purposes other than attending the University. A fraternity house may not be considered a qualified domicile.

The responsibility of proving qualified residence in the City of Akron rests with the student.

Any student who falsely claims to be a permanent resident of Akron, or gives false information to avoid the payment of tuition, shall be required to pay in addition to the tuition due, a penalty of $25.00 and may be subject to such other discipline as determined by the President of the University.

The residence of wives shall follow that of their husbands.

REGULATIONS REGARDING REFUNDS

Registration does not automatically carry with it the right of a refund or reduction of indebtedness in cases of withdrawal, and failure or inability to attend class. The student assumes the risk of all changes in business or personal affairs.

Fees are refunded in full if the University cancels the course, or if the University does not permit the student to enroll, or if the student is drafted, but not if one enlists, into the military forces of The United States of America.

A student who formally withdraws before his first regularly scheduled class, regardless of reason, will receive a full refund less $5.00.

If it is determined that a refund is proper, it shall be made after the first four weeks of the semester, or one week after the receipt of the required evidence, whichever date comes later. It is also a requirement that the student return his identification card and parking permit before a refund will be made.

After the close of registration, a student who has no obligation to the Bookstore, Library, ROTC or other department, and who formally withdraws by direct notification to the appropriate registering office, upon request may have a partial refund under either of the following conditions:

A. Withdrawal during the first week of classes.
B. Withdrawal after the first week of classes, provided evidence is supplied to the satisfaction of the Dean of the College or Division that the student has been prevented from attending classes because of:
   1. Serious illness as evidenced by a written statement of a physician.
   2. Change in hours of employment as evidenced by a written statement of the employer.
   3. Any circumstance arising since the first day of the semester beyond the control of the student.

Refunds allowed will be made according to the following schedule:

	Session or Semester		
	Regular	*Cooperative*	*Summer*
First week	80%	60%	60%
Second week	60%	40%	20%
Third week	40%	20%	0
Fourth week	20%	0	0
Thereafter	0	0	0

No refunds will be made of the following fees:
1. Late registration
2. Special examination and test
3. Change of schedule
4. Incomplete removal
5. Community College, except by written request of the Dean
6. Towel

No refunds will be issued when a student is dismissed or suspended from the University for disciplinary reasons.

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Fellowships, Scholarships, Awards and Loans . . .

A prospective student or an enrolled student at the University in undergraduate, graduate or postgraduate courses has several possibilities of receiving financial aid which can facilitate his earning a college degree.

Students who are intellectually capable of completing University courses and have indication of this on their academic records are eligible for consideration as recipients of a fellowship, scholarship, award or loan.

Definition of terms:

FELLOWSHIP—an endowment or sum of money paid for the support of a graduate or postgraduate student.

SCHOLARSHIP—an endowment or sum of money paid for the support of a student, usually undergraduate, while he is studying at the University.

AWARD—a sum of money given to a University student as special recognition of an achievement, to aid him in continuing his higher education.

LOAN—an amount of money which a student may borrow, with a planned schedule of repayment.

Information about these financial aids and application forms can be obtained from the Chairman of University Committee on Fellowships, Scholarships, Awards, and Loans in the office of the Dean of the General College. Further information about loans can be obtained from the Director of Student Personnel.

Currently offered fellowships, scholarships and awards, as well as sources of money which can be loaned to worthy students are listed as follows:

ACME-ZIP FUND SCHOLARSHIPS

This scholarship fund has been established from the proceeds of the Acme-Zip football games. Scholarships will be awarded to worthy students by the University Scholarship Committee, with an equal amount going to the University General Fund. Special consideration will be given to requests from students enrolled in the Colleges of Business Administration and Engineering.

AKRON DISTRICT SOCIETY OF PROFESSIONAL ENGINEERS SCHOLARSHIP

A scholarship in the amount of $250 a year for a junior or senior engineering student.

AKRON TEACHER EDUCATION SCHOLARSHIP

A scholarship, sponsored jointly by The University of Akron, the Akron Board of Education and the Akron Education Association to cover maintenance fees. The scholarship will be awarded to a student planning to enter the teaching profession. The award will be granted by the University Scholarship Committee upon recommendation of a committee of the Akron Education Association and representatives of the College of Education.

AKRON RUBBER GROUP SCHOLARSHIPS IN CHEMISTRY

An award of $200 a semester is available for entering students and undergraduate students majoring, or intending to major, in chemistry. Outstanding ability in science and chemistry will be given primary emphasis in the awarding of these scholarships. The award for the second semester and renewal of the scholarship for succeeding years is contingent upon satisfactory scholarship.

AKRON SECTION OF THE AMERICAN CHEMICAL SOCIETY AWARD

The award of student memberships and subscriptions to two of the Society's official publications is made to two chemistry major students of junior rank on the basis of scholarship.

AKRON SOAP BOX DERBY SCHOLARSHIP

An award of $500 to the winner of the Akron Soap Box Derby is made by the Chevrolet Dealers of the Akron area. The scholarship is payable at the time the winner becomes enrolled as a full-time student at The University of Akron.

AKRON UNIVERSITY ALUMNI FUND SCHOLARSHIPS

Akron University alumni designated the total amount of their 1959 annual fund drive for scholarships for young men or women of excellent scholastic accomplishment in high school work. It is the intention that these scholarships be four-year awards, subject to review of the University Scholarship Committee each semester. There are no geographical restrictions.

AKRON UNIVERSITY ASSOCIATES SCHOLARSHIPS

The purpose of these scholarships is to assist well-qualified students who are in need of financial aid to attend The University of Akron. The scholarships will be administered by the University Scholarship Committee. Scholarships will cover maintenance fees only and may be renewed each year contingent upon high scholastic achievement.

AKRON UNIVERSITY AWARDS

Upon recommendation of the University Scholarship Committee, students who possess talent in athletics, the dramatic arts, journalism, music or fine arts and an over-all academic record of acceptable quality, The University of Akron provides an award to the student according to the University Scholarship Committee estimate of need. Such awards are subject to review each semester.

ALPHA KAPPA ALPHA SCHOLARSHIP

The purpose of this scholarship is to encourage high scholastic attainment among Negro college women. The recipient must be a second semester sophomore, a junior or a first semester senior with a cumulative average of three point. The amount of the scholarship shall be a minimum of $100 or a maximum of $176, to be applied to fees only.

ALPHA LAMBDA DELTA AWARD

The National Chapter of Alpha Lambda Delta, scholastic honorary for women, awards a book to the graduating senior member with the highest scholastic average.

AMERICAN INSTITUTE OF CHEMISTS AWARD

A student membership in the American Institute of Chemists and a medal are given to an outstanding student majoring in chemistry. This award is granted upon the recommendation of the head of the department.

AMERICAN SOCIETY OF CIVIL ENGINEERS MEMORIAL AWARD

The purpose of this fund is to honor the memory of members of American Society of Civil Engineers who have made outstanding contributions to the civil engineering profession. The fund will pay one year's dues in the Society to a graduating member of The University of Akron Student Chapter of American Society of Civil Engineers. The student is to be selected by the Dean of the Engineering College as representing the best qualities of a civil engineer.

ASHTON PRIZES

A fund of $3,000 was established in 1887 by Oliver C. Ashton of Bryan, Ohio, endowing the O. C. Ashton Prizes for excellence in reading and speaking. Three contests are held during the year, one in original oratory, one in interpretative reading and one in extemporaneous speaking. The amounts of the prizes awarded at each contest vary from $5 to $30.

THE SUMMERFIELD BALDWIN III SCHOLARSHIP

This fund was established by the family of Summerfield Baldwin III. The income is to be used to assist a student in the junior class who is majoring in the field of history and who scholastically and intellectually proves that he or she intends to pursue studies in this field, preferably to the graduate level. All awards will be made by the University Scholarship Committee.

THE BREWSTER AWARDS

A fund established by Mr. and Mrs. Evan B. Brewster provides money for any number of awards not to exceed $125 a year to aid freshman pledges of Lone Star and/or Phi Delta Theta and/or Kappa Kappa Gamma during their initial year. Awards will be made by the University Scholarship Committee upon the recommendation of the Director of Student Personnel.

MILDRED HETER BUCKINGHAM MEMORIAL SCHOLARSHIP

The Mildred Heter Buckingham Memorial Scholarship Fund was established in 1954 by Mr. Lisle M. Buckingham in memory of his wife, Mildred Heter Buckingham. The income from this fund shall be used to assist any full-time student at the University who shows promise in the field of applied music and who is recommended for the scholarship by the Music Department. Music majors are to receive preference if equally well qualified. Final approval will rest with the University Scholarship Committee.

HOMER C. CAMPBELL FUND

A fund established under the will of the late Homer C. Campbell provides for assistance by loan or gift from its income to needy students dependent on their own resources. Preference is given to young men who have been newsboys in Akron.

COLUMBIAN CARBON RESEARCH FELLOWSHIP

This award is provided by the Columbian Carbon Company to a graduate student in rubber and polymer chemistry.

DELTA GAMMA—RUTH K. BILLOW MEMORIAL SCHOLARSHIP

Established by Akron Alumnae Chapter of Delta Gamma, this scholarship will provide $100 or more per semester (and is renewable), on the basis of need, to a visually handicapped undergraduate or graduate student who is a resident of Summit County. The applicant need not be a full-time student, but must be approved by the University and the Akron Delta Gamma Alumnae Scholarship Committees.

DELTA KAPPA GAMMA SCHOLARSHIP

This scholarship is offered by the Delta Kappa Gamma Society. An award of $200 annually is granted to a woman in her junior or senior year who expects to enter the field of teaching. The University Scholarship Committee will make the award upon the recommendation of the Scholarship Committees of the Delta Kappa Gamma Society.

DELTA PI IOTA SORORITY SCHOLARSHIP

This scholarship of $200 a year is available to full-time women students. Either entering or continuing students are eligible. The candidate must have a satisfactory scholastic record, and evidence of need, good character, and leadership will be considered. A committee of Delta Pi Iota shall nominate a list of candidates for this annual award with the cooperation of the Scholarship Committee of the University.

BETTY DOBKIN NURSING SCHOLARSHIPS

Two $400 awards made annually by the Women's Auxiliary to the Summit County Medical Society to girls entering nursing in an Akron Hospital. $200 given the first year, $100 the second and $100 the third year, contingent on satisfactory performance and scholarship. The award is a gift if the girl graduates from the Akron school of her choice. If she does not graduate, the money must be repaid to the scholarship fund.

RUTH DUGAN AERONAUTIC SCHOLARSHIP

This scholarship is offered by the Akron Women's Chapter of the National Aeronautics Association. A sum, not less than $100 a year, may be awarded to an undergraduate or graduate student who is a resident of Summit County, Ohio. Upon recommendation of the Scholarship Committee of the Chapter, the University Scholarship Committee will make the award. The

scholarship is to assist a student who is primarily interested in studying some phase of acronautics in an accredited university for a period of one year, and, with the supplementary recommendation and approval, for an additional period of one year.

EAST AKRON BOARD OF TRADE SCHOLARSHIP

A four-year scholarship in the amount of $200 a semester for a high school graduate from one of the East Akron high schools, including East, Ellet, Springfield or Hoban High (the graduate from Hoban must be a resident of East Akron). Scholarship recipient will be judged on scholarship, need, and leadership.

ELLET WOMEN'S CLUB SCHOLARSHIPS

Two scholarships in the amount of $100 each to a boy and to a girl graduate of Ellet High School who is financially deserving and who wishes to attend The University of Akron as a full-time student. Recipients must have maintained a 3.0 average in high school.

THE EVANS FOUNDATION SCHOLARSHIP

The Evans Foundation Scholarship in the amount of $500 a year is open to full-time students enrolled at The University of Akron who have demonstrated scholastic ability, possess high qualities of citizenship, promise and leadership, and who have financial need. For equally qualified students, preference shall be given to those enrolled in the College of Business Administration.

FIRESTONE TIRE & RUBBER COMPANY FELLOWSHIP

A fellowship in the Department of Chemistry is offered by the Firestone Tire & Rubber Company for the study of the chemistry and technology of rubber. The fellowship is open to graduates of standard American colleges and universities and is in the value of $1,700 per year with remission of all University fees.

DR. E. B. FOLTZ PRE-MEDICAL PRIZE

Under the provisions of the will of the late Dr. E. B. Foltz a fund was established to provide for a pre-medical prize of $100, which is awarded each year to that member of the graduating class who makes the highest average grade in all work taken in the four-year pre-medical course and who plans to enter medical college the following year. The name of the winner is announced at Commencement, but the actual award is not made until the winner has enrolled in medical college.

ARTHUR L. FOSTER SCHOLARSHIPS

The Board of Directors of the University has voted to establish a maximum of 13 scholarships per year to be awarded to graduates of Akron high schools in the amount $150 per semester. Principals of high schools in Akron may submit names of three candidates for these scholarships for the Freshman year. The candidate must be in the upper third of his graduating class and must become a full-time student. Scholastic achievement, citizenship, promise, and leadership are the qualities used as the basis for the award, which is made by a committee of the University. Applications are made at the office of the high school principal in the last semester of the senior year. The award for the second semester is contingent upon satisfactory scholarship for the first semester.

ERVIN D. FRITCH AND ADA B. FRITCH SCHOLARSHIPS

Four scholarships in the amount of $300 a year each are awarded to worthy and capable young women and men selected by the University Scholarship Committee on the basis of scholarship, financial need, moral character and ability.

THE GENERAL TIRE & RUBBER COMPANY RESEARCH FELLOWSHIP

This fellowship is given to a graduate student in the Department of Chemistry who is interested in working in the field of polymer chemistry.

GOODYEAR TIRE & RUBBER COMPANY FELLOWSHIP

A fellowship in the value of $1,700 per year is available to all graduates of standard American colleges. This fellowship is offered for the study of the chemistry and technology of rubber in the Department of Chemistry.

M. M. HARRISON MEMORIAL CHEMISTRY SCHOLARSHIPS

The income from this fund is to provide an annual scholarship for male chemistry students, Sophomore or above. Recommendation is made by the head of the Chemistry Department.

THE OTIS C. HATTON SCHOLARSHIP

A four-year scholarship in the amount of $150 per semester is awarded for the purpose of aiding a graduate of an Akron public high school who is planning to enter the educational profession. Preference will be given to well-qualified male students. Candidate must be in upper third of high school graduating class. The scholarship was established by the Akron Council of Parent Teachers Association in honor of Otis C. Hatton, former Superintendent of Schools.

ALICE HESLOP HOOVER SCHOLARSHIP

This scholarship is to be used for the purpose of aiding talented young women at The University of Akron studying voice culture who merit assistance.

FRED HOUSEHOLDER SCHOLARSHIPS

Annual scholarships for students interested in studying physics at The University of Akron. Recipients are to be selected by the University Scholarship Committee.

CLARENCE L. HYDE MEMORIAL SCHOLARSHIP

The Clarence L. Hyde Memorial Scholarship was created in 1946 by Mrs. Harriet Williams and Mrs. E. B. Perrin. The scholarship shall be a living memorial to Dr. Hyde and his service to humanity. The sum of $125 is to be awarded each year to a senior student residing in Akron, and shall be determined by scholarship and by need on the part of the student; race, color, creed, or sex shall not be considered.

JUNIOR WOMEN'S CIVIC CLUB SCHOLARSHIP

An annual scholarship of $170 a semester is awarded to a deserving student in the upper third of his high school class. The scholarship may be awarded either to a resident or a non-resident of Akron.

THE LOUIS LOCKSHIN SCHOLARSHIP

An award of $175 a semester for a deserving freshman, established by the employees of the Workingmen's Overall Supply, Inc., in honor of Louis Lockshin. The applicant will be chosen on the basis of scholarship and need. Preference will be given to relatives of employees. Race, color, creed or sex shall not be considered.

LUBRIZOL SCHOLARSHIP

An award to a chemistry student, with no restriction as to year of study; $200 a semester is awarded to the recipient, with a matching amount put into the General Fund.

C. BLAKE McDOWELL SCHOLARSHIPS

The proceeds from this fund will be used for the benefit of any person attending The University of Akron. The recipient of this assistance will be selected by the University Scholarship Committee.

THE McNEIL MACHINE & ENGINEERING COMPANY SCHOLARSHIPS

Two four-year scholarships each year have been established by the McNeil Machine and Engineering Company in the amount of $1,700 each, with an equal amount going to the University General Fund. A scholarship will be renewable each semester contingent upon the student's satisfactory scholastic progress. The scholarships will be awarded primarily to students enrolling in the College of Engineering with preference for those in the field of mechanical engineering although a deserving student in mathematics, chemistry or business may be considered. Scholarship recipients will have an opportunity for summer employment with the company and upon completion of their degree in engineering will receive priority in consideration for employment with the company.

LEON F. MOLDAVSKY SCHOLARSHIP

This scholarship, in the amount of $250 a year, will be awarded to an outstanding sophomore student majoring in the biological sciences. Candidates will make application to the University Scholarship Committee, and must have at least a three point average for all work taken in the freshman year. In addition to scholarship, the student must have demonstrated high quality of citizenship, good moral character, and high aptitude and motivation in his major field. Financial need also will be considered.

VICTOR I. MONTENYOHL SCHOLARSHIP

The Victor I. Montenyohl Scholarship Fund for advanced study was established in 1946 by Mrs. Elizabeth Montenyohl, his wife, and his son and daughter, Victor and Patricia, in

memory of Victor I. Montenyohl, in recognition of Mr. Montenyohl's devotion to the rubber industry, and his belief that The University of Akron offered a unique opportunity for rubber research. It is considered appropriate that the income from this fund be made available whenever possible to a student well qualified and interested in the field of rubber chemistry.

HERMAN MUEHLSTEIN SCHOLARSHIPS

Two scholarships in the amount of $400 a year each were established by Herman Muehlstein for needy students of high quality. The University Scholarship Committee will name the recipients.

JULIUS MUEHLSTEIN SCHOLARSHIPS

These scholarships amount to $300 a year and are given to help promising students continue their education in the field of rubber chemistry on the basis of need and satisfactory work. The committee shall make no discriminations as to race, color, or creed.

MUSIC DEPARTMENT WORK SCHOLARSHIPS

Each member of the Music Faculty may award to one student a work scholarship each semester, covering the cost of one lesson per week in applied music, when such study is over and above the minimum course requirements in applied music, in return for a stated number of hours per week of work for the faculty member awarding the scholarship.

NATIONAL RUBBER MACHINERY SCHOLARSHIPS

An annual scholarship of $500 has been established by the National Rubber Machinery Company, with a matching amount going to the University General Fund. Recipient must be an entering freshman planning to enter the field of mechanical or electrical engineering. The University Scholarship Committee shall select one who appears to be best qualified, for approval by National Rubber Machinery.

NATIONAL SCIENCE FOUNDATION COOPERATIVE GRADUATE FELLOWSHIPS

These annual awards are made in the amount of $2,200 each to graduate students in special fields for specified academic years.

NATIONAL SECRETARIES ASSOCIATION SCHOLARSHIP

In 1951, Tire Town Chapter of the National Secretaries Association established an annual scholarship in the amount of maintenance fees and books for an outstanding woman in Secretarial Science to defray normal collegiate expenses. The student is selected on the basis of criteria mutually acceptable to the University and to Tire Town Chapter, N. S. A. This scholarship is known as the Louise Gamble Memorial Scholarship.

NEW YORK RUBBER GROUP SCHOLARSHIP

A scholarship in the amount of $500 a year is available for a student entering his junior year intending to seek a graduate degree in rubber and polymer chemistry. The recipient must be a citizen of the United States living within 250 miles of New York City. The same recipient may continue this scholarship through his senior year providing he maintains scholastic standards.

OHIO STATE UNIVERSITY GRADUATE SCHOLARSHIP

In the Spring of 1935 a number of graduate scholarships were established by Ohio State University, one to be assigned to each of the Ohio colleges fully accredited by the North Central Association of Colleges and Secondary Schools. The scholarship entitles the student to the exemption of tuition and fees of all kinds except a matriculation fee. Selection is left to the individual colleges.

M. O'NEIL COMPANY SCHOLARSHIPS

The M. O'Neil Company has established four scholarships in the amount of $280 a year each to be awarded to two students from the junior class and two students from the senior class who are preparing to enter the field of retail business. In succeeding years the scholarships will be awarded to two juniors annually. The scholarships are renewable each semester upon satisfactory performance, scholarship, and the student's continued preparation for a career in retail business. Students selected shall have a minimum of a 2.5 quality point ratio for all previous college work. Achievement, citizenship, leadership, and promise of success in the business field will be used as a basis for making the awards.

DOWNTOWN OPTIMIST CLUB OF AKRON SCHOLARSHIP

A scholarship in the amount of $200 a year was established with the purpose of encouraging talented young people to enroll in the University and pursue a career of benefit to themselves and society.

DOWNTOWN AND WEST HILL OPTIMIST CLUBS SCHOLARSHIP

A scholarship in the amount of $175 a semester is sponsored jointly by the Optimist Club of Downtown Akron and the West Hill Branch.

PANHELLENIC COUNCIL SCHOLARSHIP

The Panhellenic Council of The University of Akron has established a scholarship of $125 a semester for a woman student, to be applied entirely on the payment of fees. This scholarship shall be awarded by the University Scholarship Committee to a full-time student irrespective of race, religion, creed, field of study, or sorority membership, after completion of at least one semester's work (12 or more credits) at The University of Akron, and shall be on the basis of scholarship and need. A ratio of at least 3 point in the major and 2.5 in over-all scholarship is required.

THE PHILADELPHIA RUBBER GROUP SCHOLARSHIP

The Philadelphia Rubber Group offers an annual scholarship of $500, tenable at The University of Akron, subject to the following restrictions: (1) the holder of the scholarship must be a full-time graduate student in the field of rubber and polymer chemistry, (2) he must have attended a high school, preparatory school, or college in the states of Pennsylvania, New Jersey, Delaware or Maryland, (3) if no applicant has the qualifications set forth in provision 2, the scholarship may be awarded to some other qualified candidate.

PHILLIPS PETROLEUM COMPANY RESEARCH FELLOWSHIP

This award is provided by the Phillips Petroleum Company to a graduate in polymer chemistry.

PHI SIGMA AWARD

An annual award by the National Phi Sigma Society to an outstanding student in the biological sciences.

PHI SIGMA ALPHA JUNIOR PRIZE

The Phi Sigma Alpha Junior Prize of $50, first awarded in spring 1961, to the student in Buchtel College of Liberal Arts having the highest average for 80-96 hours in residence.

PHI SIGMA ALPHA SOPHOMORE PRIZE

The Phi Sigma Alpha Sophomore Prize of $50, first awarded in spring 1961, to the student in the General College having the highest average for 48-64 hours in residence.

PIERIAN SCHOLARSHIP

This scholarship is awarded to a full-time woman student at the University, in the amount of $100 a semester for two consecutive semesters. She must have a 2.63 or better over-all average, and will be chosen on the basis of leadership, scholarship, activities, democratic ideals, and personality. Recommendations will be made by Pierian.

PIXLEY SCHOLARSHIPS

In accordance with the will of Isabel McRoy Pixley, wife of Frank Pixley, class of 1887, a fund of $50,000 was established in 1931. Awards are made each semester to students of outstanding ability and promise in the fields of literature, music, and speech. To be eligible for one of these awards the student must be enrolled in an upper college or qualified to enter an upper college and must be a major in the department in which the scholarship is awarded, or a divisional major in the humanities division. The awarding of these scholarships is made by a University committee. To be eligible for a Pixley Scholarship, a student must have a quality point ratio of at least 2 in all work taken; in the field of the award the quality of scholarship is expected to be much higher.

A. POLSKY COMPANY SCHOLARSHIPS

Four scholarships of $280 each have been established by the A. Polsky Company. These scholarships will be awarded to two students from the junior class and two students from the senior class who are preparing to enter the field of retail business. In succeeding years the scholarships will be awarded to two juniors annually. The students selected shall have a minimum of a 2.5 quality point ratio for all previous college work. Achievement, citizenship,

leadership, and promise of success in the business field will be the basis for making the awards, which are renewable each semester upon satisfactory performance, scholarship and the student's continued preparation for a career in retail business.

GEORGE E. PRICE, JR. MEMORIAL AWARDS

The George E. Price, Jr., Memorial Awards were established in 1949 by the Purchasing Agents Association of Akron to serve as a living commemoration of George E. Price, Jr., and his contribution to the field of industrial purchasing. Mr. Price was one of the founders of the local Association and a president of the National Association of Purchasing Agents. An award of $150 is made to the outstanding junior in the field of purchasing and a $100 award is made to the outstanding senior in the field of purchasing among the students in the College of Business Administration.

MILTON AND EUGENIE RADNEY SCHOLARSHIP

This scholarship is open to any student enrolled at The University of Akron who has demonstrated ability to do college work. Scholastic achievement, citizenship, leadership and need are qualities used as a basis for making this award. The amount of this scholarship is $200 a year, payable $100 a semester upon satisfactory scholastic progress.

WILLIAM S. RICHARDSON FELLOWSHIP

This is an annual fellowship in the amount of $1,200 for a student who will serve as a graduate assistant in the undergraduate teaching program while pursuing graduate work in the Department of Chemistry.

MERLE DAVID RIEDINGER SCHOLARSHIP

A scholarship in the amount of $150 per semester is awarded to a student from the Akron area. Although unrestricted as to field of study, students in retail merchandising will be given preference, all other qualifications being equal. Candidates will be chosen on the basis of scholarship, character, and need.

ROBINSON CLAY PRODUCT FUND

This fund was established in 1952 by The Robinson Clay Product Company. A portion of the income will be used annually for a cash award to the outstanding Senior student in the College of Engineering, upon recommendation of the college faculty.

CLETUS G. AND CLARA E. ROETZEL SCHOLARSHIP FUND

An endowment fund with earnings to be used to provide a scholarship or scholarships to worthy students and a matching amount to be used for the general operating expenses of the University.

FRANK ROSENBLUM ANNUAL SCHOLARSHIP

The Frank Rosenblum Annual Scholarship of $500 is open to all greater Akron Union members, their children or grandchildren, who are, or who desire to become, full-time students at The University of Akron. Candidates must be graduates of an accredited high school, or attending The University of Akron or another university. The selection of candidates is based on character and superior quality of citizenship, seriousness of purpose, sound scholarship and ability to do college work, and financial need. Award will be made by the University Scholarship Committee.

RUBBER AGE AWARD

An award of $100 each to the students writing the best master's thesis and the best doctoral thesis on some aspect of rubber chemistry or technology.

MORRIS SACKS SCHOLARSHIP

Mr. and Mrs. Alex Schulman established this scholarship in memory of Morris Sacks. The income from this fund is to be used annually for scholarships, with a matching amount to be used for current operating expenses.

SENIOR ALUMNI PRIZE

A fund has been established by the Alumni Association for the purpose of awarding an annual cash prize of $50 to that senior student who has completed the regular undergraduate curriculum with the highest average grade for the work taken, having carried an average load of 12 credits per semester.

THE H. E. SIMMONS MEMORIAL SCHOLARSHIP

The H. E. Simmons Memorial Scholarship was established in memory of President Emeritus H. E. Simmons. The earnings from this endowed scholarship will be awarded to a freshman student or students interested in chemistry. The University Scholarship Committee will determine the amount of the awards and make the selection of the scholarship recipients.

SINGLETON & MACK, INC., SCHOLARSHIP IN CHEMISTRY

This scholarship is awarded to any male student majoring in chemistry who is a junior or higher, including post-graduate work. The award is based on need, character, and ability, regardless of race, color or creed. It is awarded by the University Scholarship Committee and a representative of the Chemistry Department.

SOHIO RESEARCH FELLOWSHIP

This award is provided by the Standard Oil Company of Ohio to a graduate student in polymer chemistry.

SOUTH AKRON BOARD OF TRADE SCHOLARSHIPS

The South Akron Board of Trade has established three scholarships to be awarded to an outstanding graduate from South, Garfield, and St. Mary's High Schools in the amount of $150 per year, payable at $75 a semester. The award for the second semester is contingent upon satisfactory scholarship for the first semester. The principal of each high school may submit the names of three scholarship candidates for the Freshman year at the University.

The candidate must be in the upper third of his graduating class and must become a full-time University student. Scholastic achievement, citizenship, promise, and leadership are the qualities used as the basis for the awards. Applications are made at the office of the high school principal in the last semester of the Senior year. Recommendations of the high school principals will be considered by the University Scholarship Committee on or about May 1 each year.

TOUCHDOWN CLUB AWARDS

The Touchdown Club Awards are for four years, renewable each semester upon satisfactory performance and scholarship. Candidates must be in the upper half of their high school graduation class and must become full-time students at The University of Akron. Scholastic achievement, citizenship, athletic ability, need and leadership will be used as a basis for making the awards.

THE TUESDAY MUSICAL CLUB SCHOLARSHIP

An award of $50 a semester is made to a full-time student who is a resident of Summit County, contingent upon satisfactory scholarship, evidence of need, good character and leadership. It is limited to persons who show promise in the field of applied music. Music majors will receive preference if equally well qualified. Applicant must have the recommendation of the Scholarship Committee of the Tuesday Musical Club and the Music Department of The University of Akron.

UNION CARBIDE CORPORATION RESEARCH FELLOWSHIP

This award is provided by the Union Carbide Corporation to a graduate student in polymer chemistry.

UNITED STATES RUBBER RESEARCH GRANT

This grant is to be used to support basic research in anionic polymerization under the supervision of the Director of the Institute of Rubber Research. The recipient must be a graduate student in the Department of Chemistry.

LYNN F. (PINDY) WAGNER SCHOLARSHIPS

These scholarships amount to $352 a year each and are awarded to high school senior men and women who are candidates for admission to The University of Akron. They extend over two school years.

To qualify the individual must be a member of the Akron Junior Bowling Congress and must be a high school student in his final semester. For each later semester the award is contingent upon satisfactory performance in college. The applicant must be of good repute, and recommended by his high school. The applicant must be in the upper half of his class and accepted for admission to The University of Akron. He must enroll as a full-time student. Decision as to the winner is made jointly by a committee of the Akron Junior Bowling Congress and the University Scholarship Committee.

The award will be made regardless of race, creed, color, national origin, or course of study and will be made jointly by the above awards committee each Spring.

WOMEN'S ART LEAGUE SCHOLARSHIP AWARD

An award made to an outstanding student majoring in Art, in the amount of $100 a semester.

WOMEN'S AUXILIARY OF THE AKRON DISTRICT SOCIETY OF PROFESSIONAL ENGINEERS SCHOLARSHIP

An award of $300 a year is made to a sophomore in the College of Engineering who has acquired a minimum of 28 credits at The University of Akron. The student selected must be enrolled as a full-time student and will be selected on the basis of scholarship, leadership, and need. The second semester award is contingent upon satisfactory achievement in the first semester. The award will be made by the University Scholarship Committee upon recommendation of the Dean of the College of Engineering.

MR. AND MRS. WILLIAM D. ZAHRT SCHOLARSHIPS

This scholarship was established by Mr. and Mrs. William D. Zahrt for high scholarship students. The scholarship is in the amount of $500 a year for two students upon scholarship performance. The University Scholarship Committee will make the selection.

ZETA TAU ALPHA FOUNDATION AWARD

A grant of $100 for a girl graduate of an Akron high school has been made possible through gifts of members and friends of Zeta Tau Alpha Foundation.

NATIONAL DEFENSE EDUCATION LOAN FUND

The University administers these loans under the following provisions: the student must (a) be in need of the amount of the loan to pursue a course of study; (b) be capable of maintaining good standing in such course; and (c) have been accepted for enrollment as a full-time student, or, if already attending an institution, be in good standing and in full-time attendance as an undergraduate or graduate student. Repayment begins one year after a borrower ceases to pursue a full-time course of study at an institution of higher education, and ends 11 years thereafter. Interest rate is 3%. Up to one-half of any loan (plus interest) is canceled for service as a full-time teacher in a public elementary or secondary school.

OTHER STUDENT LOAN FUNDS

Akron College Club Loan Fund
Akron Council of Parent-Teacher Associations Loan Fund
Homer C. Campbell Fund
Katherine Claypole Loan Fund
Cuyahoga Portage Chapter D.A.R. Loan Fund
Evening Session Loan Fund
Harriet Hale Loan Fund
Hermine Z. Hansen Loan Fund
Jessie and William Hyde Memorial Fund
Lichter Foundation Loan Fund
Litchfield-Thomas Fund
Jesse A. Riner and Blanche Pease Riner Fund
Mabel Jane Rogers Memorial Fund
Richard J. Witner Memorial

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The Army and Air Force R.O.T.C.

An important phase of life on the "Akron U" campus is the men's participation in military training. During most of the University's history as an urban institution, it has been actively involved in the education of its male citizens for either reserve or active duty in the armed forces. A branch of the Army R.O.T.C. was organized in 1919, making it one of the oldest in the country, and young men of the University were trained to become officers in World War I.

At that time there was a military encampment on the Hilltop and it was in the University barracks that a marching band was organized—the first formal instrumental group on campus!

In 1946, a unit of the Air Force R.O.T.C. was formed to give both basic and advanced instruction to University men, just as the Army R.O.T.C. had been doing in the preceding quarter century.

A basic course in either Army or Air Force R.O.T.C. is required of all male students at the University.

First year students may indicate a preference for the branch of military training they prefer subject to certain regulations. During the basic courses extending over two years, they receive uniforms and equipment, for which they are responsible. These must be returned at the end of that year or upon leaving the program.

These are the only individuals exempted from this required training for Freshmen and Sophomore men:

1) Aliens
2) Men physically disqualified, carrying less than eight hours, or with more than one year prior honorable military service.
3) Men above 23 years of age or enrolled in short professional or pre-professional courses not leading to degrees.
4) Men who have completed 48 credit hours at another accredited college or university.
5) Men who submit written declaration of valid religious or conscientious objections to military service.

Principal objectives of the training programs are to develop character and good moral habits and heighten each man's awareness of his responsibilities as a citizen. It is

a goal that the Army and Air Force R.O.T.C. be integral and useful parts of the University and community.

Both areas of training are important sources of qualified career officers and reserve officers in the U.S. Army and U.S. Air Force.

The Army R.O.T.C. is a General Military Science type unit. Its graduates may be commissioned in any of 13 arms and services of the Army. The selection of each graduate's area of service depends on his own personal choice, his major academic field and the current needs of the Army.

The Air Force R.O.T.C. embodies a generalized curriculum which educates and motivates potential junior officers for the advanced phases of Air Force training. In addition to this, it provides opportunity for the male population of the University to become active citizens of The Air Age.

Advanced courses are available for men at the University as well as Advanced Summer Camps for both of the military units.

THE ADVANCED R.O.T.C. COURSE

The Army R.O.T.C. program consists of five hours per week during the junior and senior years. The advanced course is open to all students who have satisfactorily completed the basic course and veterans who have been honorably discharged or transferred to the Enlisted Reserve Corps and relieved from active duty, provided that they are selected by the President of the University and the Professor of Military Science.

While the student is enrolled in the advanced course, the government pays a total of $100 toward the purchase of a complete, individually tailored uniform that becomes the property of the cadet upon graduation and may be worn upon entry to active duty. In addition, the government pays the cadet a monetary allowance.

The Army unit requires that the student must be eligible to qualify for a commission prior to attaining the age of 28.

Once the student enters the advanced course, he must complete it to qualify for a University degree unless excused by the President of the University.

The Army R.O.T.C. student qualifies for his commission in the Army Reserve Corps by completing the advanced course and by completing the academic requirements for a Bachelor's degree. Upon being commissioned he will be called to active duty as an officer for either six months or two years, unless deferred. Deferment is granted for up to three years to work on a Master's or Doctor's degree.

On the basis of scholastic attainment and demonstrated leadership, students may be designated distinguished military students and be given an opportunity to qualify for a regular Army commission upon graduation.

Army R.O.T.C. cadets may, during their senior (graduating) year, enroll in the Army Flight Training Program. This program, leading to an FAA-approved pilot's license and offered without cost to the cadet, is designed to afford an opportunity for those who, upon being commissioned, wish to qualify for Army pilot training. Consisting of 35 hours of flying instruction and 35 hours of ground instruction, the program is extra-curricular and is taken in addition to regular classroom work.

The constantly expanding field of rockets and guided missiles offers many opportunities for Army officers in the operational area (firing and controlling missiles) and in the research and development area (such as engineers, physicists, biologists, chemists, etc.).

THE ADVANCED R.O.T.C. CAMP

Six-week Advanced R.O.T.C. camps are conducted each Summer. Students will be required to attend one Summer camp program unless sooner discharged from the R.O.T.C. The student will receive the pay of the first enlisted grade while at the advanced camp, and he will be reimbursed for his travel to and from the camp.

THE ADVANCED A.F.R.O.T.C. COURSE

The advanced program consists of five class hours per week during the junior and senior years.

The advanced program is open to men who are physically qualified and are interested in flying with the United States Air Force, either as a pilot or observer, and to a limited number of selected engineering and science majors. Entrance into the advanced phase is limited to men who have successfully completed the basic course, will be in upper college at the time of entrance, who are in phase scholastically, and to veterans who have been honorably discharged from the Armed Forces or transferred to the Enlisted Reserve Corps and relieved from active duty.

Air Force directives now require all veterans enrolling at universities or colleges, who plan to enter the advanced phase of A.F.R.O.T.C., to attend basic A.F.R.O.T.C. class. However, the Professor of Air Science may waive so much of the basic course as he considers equivalent to the active service training provided that he does not waive any portion which the cadet can complete prior to entrance into the advanced course. To satisfy entrance requirements for the advanced course, veterans entering an institution at freshman or sophomore level who desire a commission through A.F.R.O.T.C. will be required to take in phase with nonveteran contemporaries that portion of the basic program which remains. Final selection will be made by the President of the University and the Professor of Air Science.

The student must be less than 28 years of age at the time of graduation if enrolling as a Category II (engineering) applicant, or 27 years of age at the time of graduation, if enrolling as a Category I or IA (flight) applicant.

Once the student enters the advanced course, he must complete all requirements for a degree within two years (engineering students, three years) in order to qualify for a commission. Once a student enters the advanced course he must complete it to qualify for a University degree unless excused by the President of the University.

Senior A.F.R.O.T.C. students who have been selected for pilot training receive 36½ hours of flight instruction from an approved flying school at no cost to the student. A private pilot's license is issued to those who complete this flying course.

THE ADVANCED A.F.R.O.T.C. CAMP

A four-week Summer camp is conducted each Summer. Students will be required to attend one Summer camp, usually between the junior and senior year, unless sooner discharged from the A.F.R.O.T.C. program. Students will receive the pay of an airman basic while at camp and will be reimbursed for their travel to and from camp.

U.S. ARMY R.O.T.C.

MILITARY SCIENCE

11-12. First Year Basic Military Science. 1½ *credits each semester.*

Three 1-hour classes each week. Required of Freshmen not taking 13-14.

43-44. SECOND YEAR BASIC MILITARY SCIENCE. 1½ *credits each semester.*
Prerequisite, 12. 43-44 or 53-54 is required of second year men.

101-102. FIRST YEAR ADVANCED MILITARY SCIENCE. 3 *credits each semester.*
Prerequisite, 44.

111-112. FIRST YEAR ADVANCED MILITARY SCIENCE. 1½ *credits each semester.*
Prerequisite, 44. For Pre-Junior Cooperative Engineering Students.

121-122. FIRST YEAR ADVANCED MILITARY SCIENCE. 1½ *credits each semester.*
Prerequisite, 112. For Junior Cooperative Engineering Students.

123. SECOND YEAR ADVANCED MILITARY SCIENCE. 1½ *credits.*
Prerequisite, 122. Summer term or Fall. For Cooperative Engineering Students.

141. SECOND YEAR ADVANCED MILITARY SCIENCE. 1½ *credits.*
Prerequisite, 123. For Senior Cooperative Engineering Students.

151-152. SECOND YEAR ADVANCED MILITARY SCIENCE. 3 *credits each semester.*
Prerequisite, 102, Cooperative Engineers, 141. For Seniors.

U.S. AIR FORCE R.O.T.C.

AIR SCIENCE

13-14. BASIC AIR SCIENCE. 1½ *credits each semester.*
Three 1-hour classes each week. Required of Freshmen not taking 11-12.

53-54. SECOND YEAR BASIC AIR SCIENCE. 1½ *credits each semester.*
Prerequisite, 14. 43-44 or 53-54 is required of second year men.

103-104. ADVANCED AIR SCIENCE. 3 *credits each semester.*
Prerequisite, 54.

115-116. ADVANCED AIR SCIENCE. 1½ *credits each semester.*
Prerequisite, 54. For Pre-Junior Cooperative Engineering Students.

117. ADVANCED AIR SCIENCE. 1½ *credits.*
Prerequisite, 116. For Junior Cooperative Engineering Students.

125-126. ADVANCED AIR SCIENCE. 1½ *credits each semester.*
Prerequisite, 115 or 116. For Junior Cooperative Engineering Students.

153-154. ADVANCED AIR SCIENCE. 3 *credits each semester.*
Prerequisite, 104. Full-time students.

155. ADVANCED AIR SCIENCE. 1½ *credits.*
Prerequisite, 126. For first semester Senior Cooperative Engineering Students.

156. ADVANCED AIR SCIENCE. 3 *credits.*
For Second Semester Senior Cooperative Engineering Students.

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The Directories of the University

BOARD OF DIRECTORS

TERM EXPIRES DECEMBER 31, 1961

Lee Ferbstein	1071 North Portage Path
Charles J. Jahant	655 North Portage Path
Joseph Thomas	2427 Covington Road

TERM EXPIRES DECEMBER 31, 1963

*Hurl J. Albrecht	530 Ridgecrest Road
Fred I. Albrecht (effective 6/21/61)	458 St. Andrews Drive
Harry P. Schrank	120 Twin Oaks Road
E. J. Thomas	812 Mayfair Road

TERM EXPIRES DECEMBER 31, 1965

L. S. Buckmaster	137 East Archwood Avenue
Mrs. W. A. Hoyt	175 Merriman Road
J. W. Keener	265 Hampshire Road

OFFICERS FOR 1961
(January 1961, to June 21, 1961)

Chairman	*Hurl J. Albrecht
Vice Chairman	Harry P. Schrank
Vice Chairman	E. J. Thomas
Secretary	Leslie P. Hardy

OFFICERS FOR 1961
(Effective June 21, 1961)

Chairman	Harry P. Schrank
Vice Chairman	E. J. Thomas
Vice Chairman	Lee Ferbstein
Secretary	Leslie P. Hardy

* Deceased June 16, 1961

ADMINISTRATIVE OFFICERS

Norman P. Auburn, A.B., D.Sc., Litt.D., LL.D. ..... *President of the University*
Donfred H. Gardner, M.A. ..... *Vice President and Dean of Administration*
Leslie P. Hardy, M.S.Ed. ..... *Financial Vice President*
Ernest H. Cherrington, Jr., Ph.D. ..... *Dean of the Graduate Division*
Thomas Sumner, Ph.D. ..... *Dean of the Buchtel College of Liberal Arts*
R. D. Landon, C.E., M.S. ..... *Dean of the College of Engineering*
Chester T. McNerney, Ph.D. ..... *Dean of the College of Education*
Warren W. Leigh, Ph.D. ..... *Dean of the College of Business Administration*
Stanley A. Samad, LL.M. ..... *Dean of the College of Law*
Dominic J. Guzzetta, Ed.D. ..... *Dean of the General College and Coordinator of Research*
William A. Rogers, Ed.M. ..... *Dean of the Evening and Adult Education Division and Director of the Summer Session*
Cecil A. Rogers, B.S.B.A. ..... *Treasurer*
Carl L. Hall, B.S.B.A. ..... *Bursar*
Gordon A. Hagerman, B.A. ..... *Registrar*
Howard D. Haynes, B.A. ..... *Admissions Officer*
Dorothy Hamlen, B.A., B.S.L.S. ..... *Librarian*
Maurice Morton, Ph.D. ..... *Director of the Institute of Rubber Research*
L. L. Smith, M.A. ..... *Director of the Institute for Civic Education*
Richard Hansford, M.A.Ed. ..... *Director of Student Personnel*
George W. Ball, B.A. ..... *Director of University Relations*
Kenneth D. Bushnell, B.A.Ed. ..... *Director of Alumni Relations*
Robert W. Paul ..... *Superintendent of Buildings and Grounds*

ADMINISTRATIVE ASSISTANTS

Ian R. MacGregor, Ph.D. ..... *Assistant to the President*
Joseph McMullen, M.S. ..... *Assistant to the Financial Vice President*
Richard D. Matthews, M.A. ..... *Assistant Dean of the Evening Division*
Joseph C. Latona, B.A. ..... *Assistant to the Dean of the Evening Division*
John M. Denison ..... *Assistant Director of University Relations*
Charles Blair, B.A. ..... *Director of University News Bureau*
George E. Raymer, B.A. ..... *Assistant Director of University News Bureau*
Stuart Terrass, B.A., B.S. ..... *Assistant Registrar*
William Fuller, B.A. ..... *Assistant Admissions Officer*
Robert Berry, B.S.B.A. ..... *Adviser of Men*
Dudley C. Johnson, Jr., M.S.Ed. ..... *Adviser of Men*
Robert W. Larson, B.S.B.A. ..... *Adviser of Men*
James W. Fox, Ed.D. ..... *Director of Housing*
Ralph Larson, M.Ed. ..... *Director of the Student Center*
Mrs. Phyllis Paul, M.A. ..... *Adviser of Women*
Mrs. Kathryn Kimble, B.S. ..... *Assistant Adviser of Women*
Donald Bowles, B.A.Ed., B.S.I.M. ..... *Purchasing Agent*

UNIVERSITY FACULTY AND ASSISTANTS

1960-1961 and 1961-1962

FULL-TIME FACULTY

NOTE: The dates in parentheses indicate the beginning of service at Buchtel College or The University of Akron; unless otherwise stated, service began in the month of September.

NORMAN P. AUBURN, *President of the University and Professor of Political Science* (1951)
A.B., 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, 1959; Litt.D., Washburn University of Topeka, 1961.

PAUL ACQUARONE, *Professor of Botany and Geology* (1931)
B.S., Pennsylvania State College; Ph.D., Johns Hopkins University, 1929.

HOWARD W. ALLEN, *Assistant Professor of History* (1959)
B.A., M.A., University of Chicago; Ph.D., University of Washington, 1959.

FRANK T. ALUSOW, *Assistant Professor of Speech* (February 1956)
B.A., Cornell College; M.A., State University of Iowa, 1941.

DAVID E. ANDERSON, *Associate Professor of Engineering Materials and Director of the Testing Laboratory* (1923)
B.A., Augustana College; M.S., University of Chicago, 1923.

JOHN BACHMANN, *PPG Chemical Division Professor of Chemistry* (February 1961)
B.Ch.E., Ph.D., University of Minnesota, 1939.

JAMES W. BAILEY, *Instructor in English* (1960)
B.S., Long Island University; M.A., Wayne State University, 1959.

GEORGE W. BALL, *Director of University Relations* (1957)
B.A., Mount Union College, 1943.

BARBARA BANGHAM, *Administrative Assistant in the Institute for Civic Education* (July 1960)
B.A., The University of Akron, 1960.

IRENE C. BEAR, *Professor of Home Economics* (1944) (1948)
B.S., Illinois Wesleyan University; M.A., Texas State College for Women, 1937.

DONALD BECKER, *Assistant Professor of Industrial Management* (1959)
B.A., M.A., Oberlin College, 1948.

HELEN BECKER, *Associate Professor of Primary Education* (1949)
B.S., M.A., Ed.D., Columbia University, Teachers College, 1949.

WILLIAM H. BEISEL, JR., *Assistant Professor of Education* (1960)
B.S., West Chester State Teachers College; M.Ed., Ed.D., Pennsylvania State University, 1960.

ARNOLD BENTON, *Associate Professor of Physics* (1960)
B.S., Massachusetts Institute of Technology; M.A., Ph.D., University of California, 1948.

ROBERT C. BERRY, *Adviser of Men* (August 1946)
B.S.B.A., The University of Akron, 1942.

WILLIAM BEYER, *Assistant Professor of Mathematics* (1961)
B.S., The University of Akron; M.S., Virginia Polytechnic Institute, 1954.

MICHAEL BEZBATCHENKO, *Associate Professor of Mechanical Engineering* (June 1949)
B.M.E., The University of Akron; M.S., Case Institute of Technology, 1954; P.E., Ohio.

ROBERT R. BLACK, *Assistant Professor of Economics* (1958)
B.A., Carleton College; M.B.A., University of Chicago, 1947.

CHARLES BLAIR, *Director, University News Bureau* (April 1959)
B.A., The University of Akron, 1955.

†ROBERT P. BOWERS, *Instructor in Basic Engineering* (June 1957)
B.M.E., The University of Akron, 1957.

§BRUCE R. BRANDELL, *Instructor in Biology* (1957)
B.S., M.S., University of Michigan, 1950.

† Resigned June 1961.
§ Leave of absence 1961-62.

†FREDERICK J. BUECHE, *Professor of Polymer Physics and Research Associate in the Institute of Rubber Research* (1959)
B.S., University of Michigan; Ph.D., Cornell University, 1948.

[1]CHARLES BULGER, *Dean Emeritus of the Buchtel College of Liberal Arts and Hilton Professor Emeritus of Modern Languages* (February 1910)
Ph.B., Buchtel College; M.A., Ph.D., University of Wisconsin, 1925; Litt.D., The University of Akron, 1953.

WALTER C. BURKE, JR., *Assistant to the Director of the Institute for Civic Education* (February 1961)
B.A., The University of Akron, 1953.

KENNETH D. BUSHNELL, *Director of Alumni Relations* (January 1960)
B.A.Ed., The University of Akron, 1954.

[2]RENA NANCY CABLE, *Associate Professor Emeritus of Art* (1927)
B.E., M.Ed., The University of Akron, 1931.

[3]ANNA BELLE CHALFANT, *Assistant Professor of French* (1947)
B.A., Ohio State University; M.A., Middlebury College, 1934.

†ANIL K. CHATTERJEE, *Assistant Professor of Mechanical Engineering* (1958)
B.M.E., University of Jadavpur; M.S., Virginia Polytechnic Institute; M.S.M.E., University of Minnesota, 1956.

ERNEST H. CHERRINGTON, JR., *Dean of the Graduate Division and Professor of Astronomy* (August 1948)
B.A., M.S., Ohio Wesleyan University; Ph.D., University of California, 1935.

††MARVIN W. CHRISP, *Instructor in Education* (1957)
B.A.Ed., The University of Akron; M.A.Ed., The University of Akron, 1956.

FRANCES CLARK, *Assistant Professor of Accounting* (1946)
B.S., The University of Akron; M.Ed., University of Pittsburgh, 1946.

TAD CLEMENTS, *Assistant Professor of Philosophy* (1961)
B.A., University of Buffalo; M.S., University of New Mexico, 1950.

KENNETH COCHRANE, *Professor of Physical Education and Director of Athletics* (1948)
B.E., The University of Akron; M.Ed., University of Pittsburgh, 1941.

GERALD E. COOK, *Instructor in Modern Languages* (1961)
B.A., M.A., University of Michigan, 1959.

JAMES D. COOK, *Instructor in Physical Education* (March 1961)
B.A., Denison University, 1956.

[4]WALTER A. COOK, *Professor Emeritus of Chemistry* (1926)
B.A., M.A., Ph.D., University of Cincinnati, 1924.

GERALD CORSARO, *Associate Professor of Chemistry* (1948)
B.S., Penn College; M.S., Ph.D., Western Reserve University, 1944.

§MRS. BETTE DANEMAN, *Assistant Professor of Political Science* (1949) (1956)
B.A., Western Reserve University; M.A., Brown University; Ph.D., Western Reserve University, 1961.

MALCOLM J. DASHIELL, *Assistant Professor of Art* (1953)
B.F.A., John Herron Art School; M.F.A., State University of Iowa, 1953.

MRS. ELIZABETH DAVIS, *Instructor in Physical Education* (1961)
B.S.Ed., Concord College; M.S., University of Tennessee, 1956.

EMILY DAVIS, *Professor of Art* (1945)
B.A., Ohio State University; M.A., Columbia University, Teachers College; Ph.D., Ohio State University, 1936.

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[1] Retired June 1951.
[2] Retired June 1953.
[3] Retired June 1957.
[4] Retired June 1961.
† Resigned August 1961.
†† Resigned June 1961.
§ Leave of absence 1960-61.

RICHARD C. DAVIS, *Assistant Professor of Mathematics and Acting Director of the Computer Center* (1946)
B.S.Ed., The University of Akron; M.A., University of Michigan, 1951; Case Institute of Technology.

[1]HARMON O. DEGRAFF, *Professor Emeritus of Sociology* (1930)
B.A., M.A., State University of Iowa; Ph.D., University of Chicago, 1926.

JOHN M. DENISON, *Assistant Director of University Relations* (February 1946)
The University of Akron.

HJALMER W. DISTAD, *Professor of Education* (1934)
B.S.Ed., M.A., Ph.D., University of Minnesota, 1926.

[2]HOWARD M. DOUTT, *Professor Emeritus of Secretarial Science* (February 1926)
B.A., The University of Akron; M.A., University of Chicago, 1934.

JAMES E. DOVERSPIKE, *Assistant Professor of Education* (1960)
B.S., Indiana State College; M.Ed., Ed.D., Pennsylvania State University, 1961.

CHARLES DUFFY, *Pierce Professor of English Literature* (1944)
Ph.B., University of Wisconsin; M.A., University of Michigan; Ph.D., Cornell University, 1939.

THEODORE DUKE, *Professor of Latin and Greek* (1946)
B.A., The University of Akron; M.A., Western Reserve University; Ph.D., Johns Hopkins University, 1946.

JAMES F. DUNLAP, *Associate Professor of Speech* (1955)
B.S.Ed., Wilmington College; M.A., Ph.D., Ohio State University, 1954.

JOSEPH A. EDMINISTER, *Assistant Professor of Electrical Engineering* (June 1957)
B.E.E., M.S.E., The University of Akron, 1960.

[3]ELMER ENDE, *Associate Professor Emeritus of Music* (1930)
B.Mus., American Conservatory of Music, Chicago; M.A., Ohio State University, 1930.

HOWARD R. EVANS, *Professor of School Administration* (1929)
B.A., Indiana State Teachers College; M.A., Columbia University; Ph.D., Northwestern University, 1930.

THOMAS W. EVANS, *Assistant Professor of Physical Education* (April 1948)
B.A., College of Wooster; M.Ed., Kent State University, 1955.

WILLIAM R. FELDMAN, *Assistant Professor of Chemistry* (1959)
B.S., The University of Akron; Ph.D., Yale University, 1957.

†A. LINCOLN FISCH, *Assistant Director of Student Personnel* (1958)
B.A., Ohio Wesleyan University; M.S., University of Wisconsin, 1950.

[3]ELDORA FLINT, *Associate Professor Emeritus of Secretarial Science* (1929)
B.E., The University of Akron; M.S.Ed., Syracuse University, 1935.

VAUGHN WILBUR FLOUTZ, *Associate Professor of Chemistry* (1941)
B.A., Olivet College; M.A., Ph.D., University of Colorado, 1932.

OMER R. FOUTS, *Associate Professor of Physics* (1926)
B.A., Wittenberg University; M.A., Ohio State University, 1925.

JAMES W. FOX, *Director of Housing* (July 1961)
B.A., M.S., Ed.D., Indiana University, 1961.

††MORRIS FREILICH, *Instructor in Sociology* (1959)
B.A., Brooklyn College; Ph.D., Columbia University, 1960.

WILLIAM FULLER, *Assistant Admissions Officer* (October 1960)
B.A., The University of Akron, 1954.

DONFRED H. GARDNER, *Vice President and Dean of Administration and Professor of History* (1924)
B.A., M.A., Princeton University, 1923.

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[1] Retired June 1951.
[2] Retired June 1960.
[3] Retired June 1957.
† Resigned July 1961.
†† Resigned August 1961.

ALAN N. GENT, *Professor of Polymer Physics and Research Associate in the Institute of Rubber Research* (April 1961)
B.S., Leicester Technical College and University College; B.S. (Special), Ph.D., London University, 1955.

WILLIAM M. GLAZIER, *Assistant Professor of Civil Engineering* (1958)
B.S.C.E., Michigan College of Mining and Technology; M.S.C.E., University of Michigan, 1956; P.E., Ohio and D.C.

DENNIS GORDON, *Professor of Accounting* (1946)
B.A., M.B.A., University of Chicago, 1938; C.P.A., Ohio.

STEPHEN GOROVE, *Professor of Law* (1961)
J.U.D., University of Budapest; LL.M., J.S.D., Ph.D., Yale University, 1955.

[1]FRED S. GRIFFIN, *Professor Emeritus of Mechanical Engineering* (1921)
M.E., Ohio State University, 1911; P.E., Ohio.

OSSIAN GRUBER, *Assistant Professor of Business Administration* (1946)
B.A., University of Minnesota; M.B.A., Northwestern University, 1928.

ROBERT GRUMBACH, *Associate Professor of Electrical Engineering* (1961)
B.S.E.E., Case Institute of Technology; M.S.E.E., West Virginia University, 1951.

EMILE GRUNBERG, *Professor of Economics* (1946) (1956)
A.M., Ph.D., University of Frankfurt, 1930.

DOMINIC J. GUZZETTA, *Dean of the General College, Professor of Education, and Coordinator of Research* (1954)
B.A., M.Ed., Ed.D., University of Buffalo, 1953.

GORDON HAGERMAN, *Registrar* (July 1941)
B.A., The University of Akron, 1941.

GEORGE D. HAIMBAUGH, JR., *Assistant Professor of Law* (1960)
B.A., DePauw University; J.D., Northwestern University, 1952; Yale Law School.

CARL L. HALL, *Bursar* (March 1959)
B.S.B.A., Ohio State University, 1950.

E. K. HAMLEN, *Associate Professor of Coordination* (March 1946)
M.E., The University of Akron, 1928; P.E., Ohio.

PETER J. HAMPTON, *Associate Professor of Psychology and Director of Psychological Services* (August 1954)
B.A., M.A., University of Manitoba; Ph.D., Western Reserve University, 1950.

RICHARD HANSFORD, *Director of Student Personnel* (August 1949)
B.A.Ed., M.A.Ed., The University of Akron, 1954.

MRS. PHYLLIS HARDENSTEIN, *Instructor in Speech* (February 1947) (1956)
B.A., The University of Akron; M.A., University of Wisconsin, 1951.

LESLIE P. HARDY, *Financial Vice President and Professor of Adult Education* (1934)
B.S.Ed., Kent State University; M.S.Ed., The University of Akron, 1935.

†ALAN J. HARMATA, *Assistant to the Director of the Institute for Civic Education* (February 1960)
B.A.Ed., The University of Akron, 1958.

ROBERT T. HARRIS, *Instructor in Psychology* (1961)
B.A., Rice Institute; M.A., University of Houston, 1960.

H. JAMES HARWOOD, *Assistant Professor of Chemistry and Research Associate in the Institute of Rubber Research* (October 1959)
B.S., The University of Akron; Ph.D., Yale University, 1956.

HOWARD D. HAYNES, *Admissions Officer* (June 1961)
B.A., Baker University, 1956.

MRS. ANNABELLE HENRY, *Instructor in Mathematics* (1961)
B.A., Kent State University; M.A., Ohio State University, 1958.

RICHARD HENRY, *Instructor in Mechanical Engineering* (1961)
B.M.E., Ohio State University, 1961.

[1] Retired June 1951.
† Resigned February 1961.

ELIZABETH J. HITTLE, *Assistant Professor of Speech* (1950)
B.S.Ed., The University of Akron; M.A., Kent State University, 1949; Western Reserve University.

DOROTHY HOCKEY, *Assistant Professor of English* (1959)
B.A., M.A., Ph.D., Western Reserve University, 1947.

IRENE HORNING, *Assistant Professor of Biology* (1946)
B.S.N., Western Reserve University, 1934; R.N., Ohio.

[1]FRED F. HOUSEHOLDER, *Professor Emeritus of Physics* (1918)
B.A., M.A., University of Wisconsin, 1916.

ROBERT C. HOWES, *Assistant Professor of History* (1960)
B.A., Stetson University; M.A., Cornell University, 1949.

JOHN HULL, *Instructor in English* (1946) (1954)
B.A., The University of Akron; M.A., Western Reserve University, 1953.

MRS. JULIA HULL, *Assistant Professor of English* (1946)
B.A., The University of Akron; M.A., Western Reserve University, 1950.

PAUL O. HUSS, *Professor of Electrical Engineering* (January 1941)
B.S.Ed., B.S.E., M.S.E., D.Sc., University of Michigan, 1935; P.E., Ohio.

FARLEY K. HUTCHINS, *Associate Professor of Music* (1957)
M.B., Lawrence Conservatory of Music; S.M.M., S.M.D., School of Sacred Music, Union Theological Seminary, 1951.

DONATO INTERNOSCIA, *Associate Professor of Modern Languages* (1938)
B.A., Broadview College; M.A., Ph.D., Northwestern University, 1938.

ROBERT T. ITTNER, *Hilton Professor of Modern Languages* (1950)
B.A., Ph.D., University of Illinois, 1937.

DALE L. JACKSON, *Assistant Professor of Biology* (1961)
B.S., Ph.D., University of Durham (England), 1959.

ALFRED H. JOHNSON, *Associate Professor of Education* (1956)
B.S., College of Wooster; M.S., Ph.D., University of Wisconsin, 1956.

DUDLEY C. JOHNSON, JR., *Adviser of Men* (July 1961)
B.S., University of Vermont; M.S.Ed., University of Southern California, 1961.

DAVID L. JONES, *Instructor in English* (February 1961)
B.A., M.A., Ph.D., Harvard University, 1958.

EDWARD W. JONES, *Associate Professor of Geography* (January 1944)
B.S., Western Reserve University; M.A., Kent State University, 1940.

ROBERT KATZENMEYER, *Assistant Professor of Accounting* (1958)
B.S., M.B.A., Kent State University, 1954; C.P.A., Ohio.

DON A. KEISTER, *Professor of English* (1931)
B.A., M.A., The University of Akron; Ph.D., Western Reserve University, 1947.

DUANE R. KELLER, *Professor of Civil Engineering* (1955)
B.S.C.E., Ohio University; M.S.E., University of Alabama, 1949; P.E., Maryland, Alabama.

ROGER F. KELLER, JR., *Associate Professor of Biology* (1954)
B.S., University of New Hampshire; Ph.D., Michigan State College, 1953.

THOMAS K. KIM, *Assistant Professor of Business Administration* (1961)
B.A., Berea College; M.B.A., Indiana University; Ph.D., Tulane University, 1961.

GRACE C. KIMBALL, *Assistant Professor of Biology* (1955)
A.B., University of Rochester; Ph.D., Cornell University, 1937.

MRS. KATHRYN KIMBLE, *Assistant Adviser of Women* (February 1959)
B.S., University of Illinois, 1951.

DAVID KING, *Associate Professor of Political Science* (1927)
B.A., Maryville College; M.A., University of Chicago, 1925.

GEORGE W. KNEPPER, *Associate Professor of History* (August 1954)
B.A., The University of Akron; M.A., Ph.D., University of Michigan, 1954.

[1] Retired June 1950.

[1]WALTER C. KRAATZ, *Professor Emeritus of Biology* (1924)
B.A., University of Wisconsin; M.A., Ph.D., Ohio State University, 1923.

SYDNEY J. KRAUSE, *Assistant Professor of English* (1955)
B.A., University of Missouri; M.A., Yale University; Ph.D., Columbia University, 1956.

MILTON L. KULT, *Associate Professor of Electrical Engineering* (June 1954)
B.S.E.E., M.S., University of Illinois, 1952; P.E., Illinois, Ohio.

LAURENCE J. LAFLEUR, *Professor of Philosophy* (February 1952)
B.A., Princeton University; Ph.D., Cornell University, 1931.

R. D. LANDON, *Dean of the College of Engineering and Professor of Civil Engineering* (February 1946)
C.E., M.S., University of Cincinnati, 1927; P.E., Ohio.

[2]EBBA LARSON, *Assistant Registrar* (August 1926)
The University of Akron.

GORDON LARSON, *Associate Professor of Physical Education and Assistant Director of Athletics* (February 1961)
B.S.Ed., M.E., Kent State University, 1954.

RALPH LARSON, *Director of the Student Center* (July 1960)
B.S.Ed., M.Ed., Kent State University, 1953.

ROBERT W. LARSON, *Adviser of Men* (August 1958)
B.S.B.A., The University of Akron, 1946.

ANTHONY S. LATERZA, *Instructor in Physical Education* (August 1955)
B.S.Ed., The University of Akron, 1952.

JOSEPH LATONA, *Assistant to the Dean of the Evening and Adult Education Division* (June 1961)
B.A.Ed., The University of Akron, 1955.

DOROTHY LAUBACHER, *Assistant Professor of Home Economics* (1950)
B.S., M.A., Ohio State University, 1941.

MRS. MARGARET LEFEVRE, *Assistant Professor of Speech* (February 1959)
B.A., Western Michigan University; M.A., University of Minnesota; Ph.D., Western Reserve University, 1957.

WALTER D. LEHRMAN, *Instructor in English* (1956)
B.S., M.A., Columbia University, 1953.

WARREN W. LEIGH, *Dean of the College of Business Administration and Professor of Commerce and Business Administration* (1926)
B.A., University of Utah; M.B.A., Ph.D., Northwestern University, 1936.

ARNO K. LEPKE, *Professor of Modern Languages* (1961)
University of Greifswald (Germany); Ph.D., University of Marburg (Germany), 1947.

GERALD H. LEVIN, *Assistant Professor of English* (1960)
Vanderbilt University; M.A., University of Chicago; Ph.D., University of Michigan, 1956.

WILL LIPSCOMBE, *Associate Professor of Mathematics* (1921)
B.S., Florida State College; M.S., Ohio State University, 1926.

STEWART MCKINNON, *Assistant Professor of Commerce* (1949)
B.A., M.A., University of Wisconsin, 1941.

JAMES MCLAIN, *Assistant Professor of Economics* (1946)
B.A., The University of Akron; M.A., Western Reserve University; Ph.D., Ohio State University, 1959.

GEORGE M. MCMANMON, *Associate Professor of Business Administration* (1959)
B.A., Syracuse University; M.B.A., Harvard Business School; D.S.S., Syracuse University, 1958.

JOSEPH H. MCMULLEN, *Associate Professor of Education and Assistant to the Financial Vice President* (June 1954)
B.S., B.A., Brown University; M.S., Westminster College, 1952.

[1] Retired June 1959 (Emeritus, 1958.)
[2] Retired July 1961.

CHESTER T. MCNERNEY, *Dean of the College of Education and Professor of Education* (July 1959)
B.S., M.S.Ed., Ph.D., Indiana University, 1949.

JOHN A. MACDONALD, *Instructor in Music* (1959)
B.M.Ed., Oberlin College; M.A.Musicology, University of Michigan, 1957.

IAN R. MACGREGOR, *Assistant to the President* (1961)
B.A., M.S., Ph.D., University of Cincinnati, 1945.

HOWARD MAHER, *Associate Professor of Psychology* (1959)
A.B., M.A., Temple University; Ph.D., Ohio State University, 1954.

MRS. JOHANNA MALLY, *Instructor in Home Economics* (1959)
B.S., Western Reserve University, 1923.

ANDREW MALUKE, *Assistant Professor of Physical Education* (February 1946)
B.S.Ed., The University of Akron; M.A., Kent State University, 1949.

GEORGE P. MANOS, *Assistant Professor of Civil Engineering* (1957)
B.Ch.E., Ohio State University, 1948; P.E., Ohio.

†LOUIS T. MARLAS, *Assistant Professor of Law* (1960)
ASTP Diploma, Harvard University; M.A., University of Chicago; J.D., Northwestern University, 1956.

RICHARD C. MARSHALL, *Assistant Professor of Law and Law Librarian* (1959)
LL.B., Akron Law School, 1954.

RICHARD D. MATTHEWS, *Assistant Dean of the Evening and Adult Education Division* (August 1961)
B.A., B.S.Ed., M.A., Ohio State University, 1952.

MARGARET EVELYN MAUCH, *Associate Professor of Mathematics* (1945)
B.S., Huron College; M.S., Ph.D., University of Chicago, 1938.

WILLIAM MAVRIDES, *Instructor in Speech and University TV Coordinator* (July 1960)
B.A., The University of Akron; M.A., Peabody College for Teachers, 1958.

MARVIN M. MOORE, *Assistant Professor of Law* (July 1960)
B.A., Wayne State University; LL.B., LL.M., Duke University, 1960.

MAURICE MORTON, *Professor of Polymer Chemistry and Director of the Institute of Rubber Research* (October 1948)
B.S., Ph.D., McGill University, 1945.

CHARLES F. NAGY, *Associate Professor of Accounting* (1961)
B.S., M.S., Indiana State University; Ph.D., University of Alabama, 1959.

SAMUEL C. NEWMAN, *Associate Professor of Sociology* (1951)
B.A., University of Pittsburgh; M.A., Oberlin College; Ph.D., Ohio State University, 1939.

†MRS. GAY L. NOKES, *Instructor in Physical Education* (1958) (1959)
B.S., Michigan State University, 1956.

OLIVER OCASEK, *Assistant Professor of Education* (January 1961)
B.S.Ed., M.A., Kent State University, 1950.

[1]JAY L. O'HARA, *Professor Emeritus of Economics* (January 1934)
B.A., University of Michigan; Ph.D., University of Minnesota, 1927.

MRS. HELEN PAINTER, *Associate Professor of Education* (1945)
B.A., M.A., Ed.D., Indiana University, 1941.

WILLIAM I. PAINTER, *Associate Professor of Education* (1945)
B.A., Oakland City College; M.A., Ph.D., Indiana University, 1933.

EDWARD A. PAUL, *Assistant Professor of English* (1955)
B.A., The University of Akron; M.A., Ph.D., Western Reserve University, 1958.

MRS. PHYLLIS PAUL, *Adviser of Women* (July 1955)
B.A., The University of Akron; M.A., Western Reserve University, 1937.

ROBERT V. PERINGER, *Assistant Professor of Mechanical Engineering* (February 1961)
B.S.M.E., Iowa State University; M.S.M.E., Cornell University, 1961.

[1] Retired August 1956.
† Resigned June 1961.

W. M. PETRY, *Professor of Mechanical Engineering* (1946)
B.S.M.E., University of Missouri; M.S.M.E., Case Institute of Technology, 1951; P.E., Ohio.

JOHN S. PHILLIPSON, *Assistant Professor of English* (1961)
B.A., University of Rochester; M.A., Ph.D., University of Wisconsin, 1952.

FRANK T. PHIPPS, *Associate Professor of English* (1953)
B.A., M.A., Miami University; Ph.D., Ohio State University, 1953.

JOHN A. POPPLESTONE, *Assistant Professor of Psychology* (1961)
B.A., University of Michigan; M.A., Wayne State University; Ph.D., Washington University, 1958.

CHARLES F. POSTON, *Associate Professor of Finance* (1959)
B.A., Eastern Illinois State College; M.A., University of Illinois; Ph.D., University of North Carolina, 1959.

JOHN W. PULLEYN, JR., *Instructor in Modern Languages* (1957)
B.A., M.A., University of Minnesota, 1950.

MRS. MARY B. PULLEYN, *Instructor in English* (1958)
B.A., M.A., University of Minnesota, 1952.

MRS. RUTH PUTMAN, *Assistant Professor of English* (1934)
B.A., Howard College; M.A., Western Reserve University, 1938.

[1]RUTH MARGUERITE RAW, *Associate Professor Emeritus of Engineering English* (1929)
B.A., M.A., Hiram College; M.A., Columbia University, 1924.

GEORGE E. RAYMER, *Assistant Director of the University News Bureau* (August 1961)
B.A., Kent State University, 1952.

ALVIN M. RICHARDS, JR., *Associate Professor of Civil Engineering* (1949)
B.C.E., The University of Akron; M.S., Harvard University, 1949; P.E., Ohio.

DAVID C. RIEDE, *Assistant Professor of History* (1955)
B.A., M.A., Ph.D., State University of Iowa, 1957.

MABEL RIEDINGER, *Professor of Education* (February 1947)
B.A., Mount Union College; M.A., University of Chicago; Ed.D., Columbia University, Teachers College, 1946.

†MARGARET E. RIFFILE, *Assistant Dietitian* (1959)
B.A., The University of Akron, 1951.

EDGAR C. ROBERTS, *Assistant Professor of English* (1926)
B.S.Ed., M.A., Ohio State University, 1924.

††HOWARD S. ROBERTSON, *Instructor in Modern Languages* (1959)
B.A., McMaster University (Hamilton, Ontario); M.A., Ph.D., Indiana University, 1960.

[2]CLARA G. ROE, *Professor Emeritus of History* (1947)
B.A., University of Michigan; M.A., University of Chicago; Ph.D., University of Michigan, 1943.

CECIL A. ROGERS, *Treasurer* (1932)
B.S.B.A., The University of Akron, 1932.

WILLIAM A. ROGERS, *Dean of the Evening and Adult Education Division, Assistant Professor of Education, and Director of the Summer Session* (1957)
B.A., Ed.M., University of Buffalo, 1954.

CHARLES ROGLER, *Professor of Sociology* (1949)
B.A., M.A., University of Michigan; Ph.D., University of Kansas, 1935.

MRS. MARGARET F. ROGLER, *Assistant Professor of Marketing* (1948)
B.S., University of Nebraska; M.S., University of Denver, 1944.

DALE ROSS, *Instructor in English* (1961)
B.A., The University of Akron, 1959.

LOUIS ROSS, *Associate Professor of Mathematics* (February 1946)
B.S., B.A., M.A.Ed., The University of Akron; Ph.D., Western Reserve University, 1955.

[1] Retired June 1955.
[2] Retired June 1959.
† Resigned May 1961.
†† Resigned June 1961.

WILMA RUMAN, *Instructor in Physical Education* (1959)
B.S.Ed., The University of Akron; M.A., Columbia University, Teachers College, 1950.

STANLEY A. SAMAD, *Dean of the College of Law and Professor of Law* (1959)
B.A., LL.B., University of Cincinnati; LL.M., Western Reserve University, 1959.

RAY H. SANDEFUR, *Professor of Speech and Chairman of the Division of Humanities* (1950)
B.A., B.S.Ed., Emporia State Teachers College; M.A., University of Colorado; Ph.D., State University of Iowa, 1950.

[1]RICHARD H. SCHMIDT, *Professor Emeritus of Chemistry* (April 1918)
B.A., Wesleyan University; M.A., Columbia University, 1915.

†MRS. MARGARET SCHOENBERG, *Instructor in English* (1956)
B.A., University of Manitoba; M.A., Ph.D., Radcliffe College, 1958.

†BRUCE SCHWARTZ, *Assistant Director of the University News Bureau* (April 1960)
B.A., University of Arizona, 1953.

MRS. ANNETTE K. SEERY, *Assistant Professor of Economics* (1951)
B.A., Mount Holyoke College; M.A., Washington University, 1947.

[2]FREDERICK S. SEFTON, *Professor Emeritus of Physical Education* (1915)
B.S., Colgate University; M.Ed., Harvard University, 1925.

SAMUEL SELBY, *Ainsworth Professor of Mathematics and Chairman of the Division of Natural Sciences* (1927)
B.A., M.A., University of Manitoba; Ph.D., University of Chicago, 1929.

MRS. LUCY T. SELF, *Assistant Professor of Secretarial Science* (February 1933)
B.A., Ohio Wesleyan University, 1920.

THOMAS W. SHARKEY, *Assistant Professor of Business Administration* (1954)
B.S.C., Ohio University; M.B.A., Indiana University, 1952.

††JAMES E. SHEARER, *Associate Professor of Mechanical Engineering* (February 1953)
B.S.M.E., M.S., University of Tennessee, 1953; P.E., Ohio.

ROY V. SHERMAN, *Professor of Political Science and Chairman of the Division of Social Sciences* (1929)
B.A., M.A., Ph.D., State University of Iowa, 1927.

KENNETH F. SIBILA, *Professor of Electrical Engineering* (February 1940)
B.S.E.E., M.S.E.E., Case Institute of Technology, 1937; P.E., Ohio.

FRANK SIMONETTI, *Professor of Business Administration* (February 1942)
B.S., The University of Akron; M.B.A., Boston University, 1941; D.B.A., Indiana University, 1954.

MARY VERNON SLUSHER, *Associate Professor of Accounting* (1947) (1954)
B.S., M.S., Virginia Polytechnic Institute, 1931; C.P.A., Virginia.

HENRY P. SMITH, *Associate Professor of Music* (1947)
B.M., Illinois Wesleyan; M.A., Carnegie Institute of Technology; Ed.D., Columbia University, Teachers College, 1949.

HERBERT W. SMITH, JR., *Assistant Professor of Modern Languages* (1956)
B.A., Brigham Young University; M.A., Ph.D., University of Wisconsin, 1956.

LEVI LESTER SMITH, *Assistant Professor, and Director of the Institute for Civic Education* (August 1956)
B.A., Columbia University; M.A., Columbia University, Teachers College, 1947.

[3]PAUL C. SMITH, *Associate Professor Emeritus of Electrical Engineering* (1925)
B.S.E.E., Purdue University, 1917; P.E., Ohio.

†DANIEL SONENSHINE, *Instructor in Biology* (1959)
B.A., City College of New York; Ph.D., University of Maryland, 1959.

HOWARD STEPHENS, *Assistant Professor of Chemistry and Administrative Assistant in the Institute of Rubber Research* (1950)
B.S., M.S., Ph.D., The University of Akron, 1960.

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[1] Retired July 1955.
[2] Retired June 1954.
[3] Retired June 1959.
† Resigned June 1961.
†† Resigned February 1961.

WILLIAM J. STEVENS, *Assistant Professor of English* (1950)
B.A., M.A., Dalhousie University, Halifax, N.S.; Ph.D., Western Reserve University, 1959.

THOMAS SUMNER, *Dean of Buchtel College of Liberal Arts and Professor of Chemistry* (1950)
B.S., Ph.D., Yale University, 1951.

LEONARD SWEET, *Assistant Professor of Mathematics* (1959)
B.A.Ed., The University of Akron; M.Ed., Kent State University, 1954.

ERNEST A. TABLER, *Associate Professor of Mathematics* (1935)
B.S., Kent State University; M.A., Western Reserve University, 1933.

†WILLIAM M. TAYLOR, *Associate Professor of Psychology* (1959)
B.A., Georgetown College (Ky.); M.S., Ph.D., Purdue University, 1953.

STUART M. TERRASS, *Assistant Registrar* (December 1957)
B.A., B.S., The University of Akron, 1955.

MRS. HELEN S. THACKABERRY, *Assistant Professor of English* (February 1940)
B.A., M.A., State University of Iowa, 1937.

ROBERT E. THACKABERRY, *Professor of English* (1938)
B.A., M.A., Ph.D., State University of Iowa, 1937.

ERNEST R. THACKERAY, *Professor of Physics* (1949)
B.A., M.A., University of Saskatchewan; Ph.D., University of Wisconsin, 1948.

HUGH THOMPSON, *Instructor in Physical Education* (August 1960)
B.S., B.A., Shepherd College; M.S., Pennsylvania State University, 1957.

EDGAR A. TOPPIN, *Assistant Professor of History* (1959)
B.A., M.A., Howard University; Ph.D., Northwestern University, 1955.

EVELYN M. TOVEY, *Associate Professor of Nursing Education* (1950)
B.S.N., M.S.N., Western Reserve University, 1950; R.N., Ohio.

MRS. AUDRA TENNEY TUCKER, *Associate Professor of Secretarial Science* (1926)
B.A., The University of Akron; M.A., New York University, 1936.

PAUL E. TWINING, *Professor of Psychology* (November 1941)
B.S., Ottawa University; M.A., University of Kansas; Ph.D., University of Chicago, 1938.

[1]CLARENCE R. UPP, *Associate Professor Emeritus of Mechanical Engineering* (1925)
M.E., Ohio State University, 1910; P.E., Ohio.

ULYSSES S. VANCE, *Associate Professor of Journalism and University Editor* (1923)
B.A., State University of Iowa, 1923.

DONALD S. VARIAN, *Associate Professor of Speech* (1934)
B.A., M.A., University of Wisconsin, 1934.

MARY ELIZABETH VERHOEVEN, *Instructor in Education* (1960)
B.S., Eastern Michigan University; M.A., University of Michigan, 1960.

HENRY S. VYVERBERG, *Associate Professor of History* (1957)
B.A., University of Rochester; M.A., Ph.D., Harvard University, 1950; University of Lausanne (Switzerland), Certificate in French Studies, 1947.

EDWIN E. WAGNER, *Assistant Professor of Psychology* (1959)
B.A., M.A., Ph.D., Temple University, 1959.

††MARVIN E. WALKER, *Assistant Registrar* (November 1959)
B.S.B.A., The University of Akron, 1957.

SHIRLEY G. WARREN, *Assistant Dietician* (June 1961)
B.S., The University of Akron, 1960.

NORMAN F. WASHBURNE, *Associate Professor of Sociology* (1960)
B.A., University of Missouri; M.A., New School of Social Research; Ph.D., Washington University, 1953.

JOHN STEWART WATT, *Associate Professor of Education* (1956)
B.A., The University of Akron; M.A., Ph.D., University of Chicago, 1950.

PAUL A. WEIDNER, *Associate Professor of Political Science* (1960)
B.A., M.A., University of Cincinnati; Ph.D., University of Michigan, 1959.

[1] Retired June 1952.
† Resigned August 1961.
†† Resigned February 1961.

BERNARD M. WEINER, *Assistant Professor of Art* (1953)
B.S., Cleveland Institute of Art and Western Reserve University; M.A., Western Reserve University, 1951.

FRANCIS J. WERNER, *Instructor in Psychology* (August 1950)
B.A., M.A., The University of Akron, 1952.

DAVID WESTNEAT, *Assistant Professor of Chemistry* (1960)
B.S., Allegheny College; Ph.D., University of Pittsburgh, 1956.

[1]GEORGE STAFFORD WHITBY, *Professor Emeritus of Rubber Chemistry* (1942)
A.R.C.Sc., B.S., University of London; M.S., Ph.D., D.Sc., McGill University, 1939; LL.D., Mount Allison University, New Brunswick, 1932; D.Sc., The University of Akron, 1958.

[2]MRS. FLORENCE N. WHITNEY, *Associate Professor Emeritus of English* (1936)
B.A., Dakota Wesleyan University; M.A., Columbia University, 1913.

[3]EARL R. WILSON, *Associate Professor Emeritus of Mechanical Engineering* (1929)
B.M.E., Ohio State University, 1916; P.E., Ohio.

MARY H. WILSON, *Assistant Professor of Home Economics* (April 1943)
B.S., Iowa State College, 1932.

DARREL E. WITTERS, *Assistant Professor of Music* (1941)
B.S.Ed., Bowling Green State University; M.S.Ed., The University of Akron, 1958.

[1] Retired June 1952.
[2] Retired June 1953.
[3] Retired June 1958.

PART-TIME FACULTY

(Day and Evening Credit)

1960-61

MRS. EDNA ARCHER, *Lecturer in Education*
B.E., The University of Akron; M.A., Columbia University, 1939.

GEORGE M. BAKER, *Lecturer in General Business*
B.S.C.E., Kansas State Teachers College, 1925.

FRANK S. BROWN, *Lecturer in General Business*
B.S.Ed., Kent State University, 1937.

RAYMOND R. BROWN, *Lecturer in Sociology*
B.S., The University of Akron, 1929.

FOSTER S. BUCHTEL, *Lecturer in Philosophy*
B.A., The University of Akron, 1960.

NATHAN F. CARDARELLI, *Lecturer in General Studies*
B.S., B.A., M.S., The University of Akron, 1958.

JOHN D. CHAPMAN, *Lecturer in General Business*
B.A., Yale University, 1947.

ROBERT B. COLE, *Special Instructor in Clarinet*
B.S.Ed., The University of Akron, 1938.

CHESTER F. CONNER, *Lecturer in General Business*
Ph.B., The University of Akron, 1906.

JAMES W. DANNEMILLER, *Lecturer in General Business*
B.S., The University of Akron, 1952.

HARMON O. DEGRAFF, *Professor Emeritus of Sociology*
B.A., M.A., State University of Iowa; Ph.D., University of Chicago, 1926.

STANLEY R. DENGLER, *Lecturer in Mathematics*
B.A.Ed., M.A.Ed., The University of Akron, 1953.

JOSEPH DILAURO, *Lecturer in Accounting*
B.S., The University of Akron, 1955.

PAUL H. DUNHAM, *Lecturer in Industrial Management*
B.A., Western Reserve University, 1947.

JAMES G. FRANCE, *Lecturer in Law*
B.A., Brown University; LL.B., Yale University, 1941.

JAMES E. GINTHER, *Lecturer in General Studies*
B.A., College of Wooster; M.A., Duke University; M.A., University of North Carolina, 1950.

JOHN M. GLENN, *Lecturer in Business Law*
B.A., University of Rochester; LL.B., Harvard University, 1957.

PATRICK J. GOODALL, *Lecturer in Electrical Engineering*
B.E.E., The University of Akron, 1948.

ANDREW B. GRIBLE, *Lecturer in Industrial Management*
B.S., The University of Akron, 1954.

MRS. BARBARA GSELLMAN, *Lecturer in Basic Engineering*
B.M.E., The University of Akron, 1950.

LUCILE GUSTAFSON, *Lecturer in Education*
B.S., Northwestern University; M.A., University of Chicago; Ph.D., New York University, 1957.

JAMES C. HALLETT, *Lecturer in Accounting*
B.S., The University of Akron, 1949.

*MRS. ADENA HANDWERK, *Lecturer in Secretarial Science*
B.A., The University of Akron, 1941.

MRS. S. BONNIE HANKAMMER, *Lecturer in General Studies*
B.S., M.A., Kent State University, 1954.

JAMES R. HODGE, *Lecturer in Psychology*
B.S., Franklin and Marshall College; M.D., Jefferson Medical College of Philadelphia, 1950.

HARRY H. HOLLINGSWORTH, *Lecturer in General Business*
B.S., The University of Akron; M.B.A., Northwestern University, 1950.

MARTHA HOSFELT, *Lecturer in General Studies*
B.A., The University of Akron, 1959.

JOSEPH C. HUBER, *Lecturer in Mathematics*
B.S.E.E., M.S.E.E., Massachusetts Institute of Technology, 1957.

MRS. ROSALIND IRISH, *Lecturer in English*
B.S., B.A., The University of Akron; M.A., Columbia University, 1924.

EDWARD C. KAMINSKI, *Lecturer in Business Law*
B.A., The University of Akron; LL.B., Western Reserve University, 1959.

FRANK KELLEY, *Lecturer in Chemistry*
B.S., M.S., Ph.D., The University of Akron, 1961.

JOHN T. KIDNEY, *Lecturer in Industrial Management*
Retired Manager, Employees Service Division, The Goodyear Tire and Rubber Company.

ROBERT O. KIRKHART, *Lecturer in Psychology*
B.S.Ed., M.A., Kent State University; Ph.D., Ohio State University, 1959.

LADONNA KOLEDIN, *Lecturer in General Studies*
B.A., M.A.Ed., The University of Akron, 1953.

JANKO P. KOVACEVICH, *Lecturer in Education*
B.S., Baylor University; M.A., The University of Akron, 1952.

ROSE MARY KRAUS, *Instructor in Education*
B.E., The University of Akron; M.A., Columbia University, 1926.

MRS. BEATRICE LAATSCH, *Lecturer in Secretarial Science*
B.S.Ed., The University of Akron, 1938.

WILLIAM R. LANTZ, *Lecturer in General Business*
The University of Akron.

* Deceased 1961.

CLARENZ LIGHTFRITZ, *Special Instructor in Piano*
Bowling Green State University; private instruction with Ernest White and Miss Rena Wills.

WALTER C. LIPPS, *Lecturer in Physical Education*
B.E., The University of Akron, 1928.

EVERETT LOWE, *Lecturer in Political Science*
B.A., The University of Akron; LL.B., Yale University, 1954.

LEE S. MCDONALD, *Lecturer in General Business*
B.A., Knox College; M.B.A., Miami University, 1950.

JULIA MCMILLEN, *Lecturer in General Studies*
B.A., College of Wooster, 1957.

EUGENE J. MEZEY, *Lecturer in Chemistry*
B.S., Ohio University; M.S., Ph.D., Ohio State University, 1957.

DONALD R. MORRIS, *Lecturer in General Business*
B.S., The University of Akron; LL.B., Akron Law School, 1942.

MARY MOSTENIC, *Lecturer in General Studies*
B.A., B.E., M.A., The University of Akron, 1951.

E. EARL MYERS, *Lecturer in General Studies*
B.A., M.A., Kent State University, 1950.

STANLEY D. MYERS, *Lecturer in Electrical Engineering*
B.E.E., The University of Akron, 1944.

MILTON NELSON, *Special Instructor in Trumpet*
B.S.Ed., The University of Akron, 1949.

MRS. BETTY OBLISK, *Lecturer in Secretarial Science*
B.S., The University of Akron, 1947.

VERNON L. ODOM, *Lecturer in General Studies*
B.A., Morehouse College; M.S.W., Atlanta University, 1950.

ANTHONY S. OLIVO, *Lecturer in Accounting*
B.S., The University of Akron, 1947.

ROBERT PAOLUCCI, *Special Instructor in Brass Instruments*
Juilliard School of Music.

MRS. IRJA PIIRMA, *Lecturer in Chemistry*
Diploma in Chemistry, Technische Hochschule of Darmstadt; M.S., Ph.D., The University of Akron, 1960.

THOMAS M. POWERS, *Lecturer in General Business*
B.A., Cornell University; LL.B., Cleveland Law School, 1927.

ARTHUR REGINALD, *Special Instructor in Piano*
New York University, Juilliard Graduate School of Music, Student of Madame Olga Samaroff.

KENNETH L. REYNOLDS, *Lecturer in General Business*
B.S., University of Illinois, 1927.

MARK A. RILEY, *Lecturer in General Business*
B.S., The University of Akron, 1959.

KARL R. ROHRER, *Lecturer in Basic Engineering*
B.S., The University of Akron, 1950.

EARL ROTTMAYER, *Lecturer in Mechanical Engineering*
B.S.M.E., The University of Akron; M.S.A.E., University of Michigan, 1941.

MRS. JULIET SALTMAN, *Lecturer in General Studies*
B.A., Rutgers University; M.A., University of Chicago, 1948.

LAWRENCE SCARPITTI, *Special Instructor in Violin*
B.S.Ed., The University of Akron, 1954.

BLIN B. SCATTERDAY, *Lecturer in Mathematics*
B.A., The University of Akron, 1950.

JAMES E. SHEARER, *Lecturer in Mechanical Engineering*
B.S.M.E., M.S., University of Tennessee, 1953.

JAMES J. SHIPMAN, *Lecturer in Physics*
B.S., M.S., The University of Akron, 1946.

ROBERT J. SIMMONS, *Lecturer in Accounting*
B.S.Ed., The University of Akron; M.Ed., Kent State University, 1953.

RONALD G. SNIDER, *Lecturer in General Studies*
B.A., M.A., The University of Akron, 1954.

JOHN F. STEIN, *Special Instructor in Voice*
Private instruction with Herbert Witherspoon, Enrico Rosati and Maria Kurenko.

LEONA STERLEY, *Lecturer in Secretarial Science*
B.S.Sec.Sc., The University of Akron; M.A.Bus.Ed., New York University, 1942.

HENRY C. STEVENS, *Lecturer in Chemistry*
B.S., Columbia University; M.S., Ph.D., Western Reserve University, 1951.

BARRY K. SUGDEN, *Lecturer in General Business*
B.S., University of California; M.B.A., Harvard University, 1948.

GEORGE SZOEKE, *Lecturer in Mathematics*
B.S.M.E., University of Budapest, 1951.

MRS. CATHRYN TALIAFERRO, *Lecturer in English*
B.A., The University of Akron; M.A., Radcliffe College, 1941.

L. BLAINE TEWKSBURY, *Lecturer in General Studies*
B.S., Ph.D., Yale University, 1941.

WELD W. TURNER, *Lecturer in Psychology*
B.S., University of Oklahoma; M.S., Ph.D., Purdue University, 1959.

SUMNER W. VANICA, *Lecturer in Education*
B.A., M.A., The University of Akron, 1941.

CARL W. VOBBE, *Lecturer in Industrial Management*
B.B.A., University of Toledo, 1932.

JOAN WARNER, *Lecturer in Secretarial Science*
B.S.Sec.Sc., The University of Akron, 1956.

LAURANCE R. WEBB, *Lecturer in Chemistry*
B.S., Western Kentucky State College; M.S., The University of Kentucky; Ph.D., Tulane University, 1951.

MIRIAM V. WEIN, *Lecturer in English*
B.A., The University of Akron; M.A., The University of Michigan, 1960.

WILLIAM R. WEISS, *Lecturer in Secretarial Science*
B.S.Ed., The University of Akron, 1957.

HERBERT P. WELLS, *Lecturer in Physical Education*
B.S., The University of Akron, 1957.

MRS. BETTY WETTSTYNE, *Lecturer in Secretarial Science*
B.S.Sec.Sc., The University of Akron; M.B.A., University of Chicago, 1942.

NELLIE WHITTAKER, *Special Instructor in Piano*
B.E., M.Ed., The University of Akron, 1935; Juilliard School of Music.

DAVID H. WILSON, *Lecturer in Law*
B.A., Amherst College; LL.B., Western Reserve University, 1948.

EDWIN A. YOUNG, *Lecturer in General Business*
B.A., The University of Akron; M.A., Ohio State University, 1932.

TEACHING FACULTY BY DEPARTMENTS
1960-1961 and 1961-1962
(All Colleges)

ACCOUNTING

Mr. Dennis Gordon, Head; Miss Frances Clark, Mr. Joseph DiLauro, Mr. Ossian Gruber, Mr. James C. Hallett, Mr. Robert Katzenmeyer, Mr. Charles Nagy, Mr. Anthony S. Olivo, Mr. Robert J. Simmons, Miss Mary V. Slusher.

ART

Miss Emily Davis, Head; Mrs. Edna Archer, Mr. Malcolm J. Dashiell, Mr. Bernard M. Weiner.

ASSOCIATE PROGRAMS

Mr. D. J. Guzzetta, Head; Mrs. Adena Handwerk,* Mrs. Beatrice Laatsch, Mr. E. Earl Myers, Mrs. Betty Oblisk, Mrs. Lucy Self, Miss Leona Sterley, Mrs. Audra Tucker, Miss Joan Warner, Mr. William R. Weiss, Mrs. Betty Wettstyne.

BIOLOGY

Mr. Roger F. Keller, Jr., Head; Mr. Paul Acquarone, Mr. Bruce Brandell, Miss Irene Horning, Mr. Dale Jackson, Miss Grace C. Kimball, Mr. Daniel Sonenshine.

CHEMISTRY

Mr. John Bachmann, Head; Mr. Walter A. Cook, Mr. Gerald Corsaro, Mr. William Feldman, Mr. Vaughn W. Floutz, Mr. H. James Harwood, Mr. Frank Kelley, Mr. Eugene Mezey, Mr. Maurice Morton, Mrs. Irja Piirma, Mr. Kenneth Scott, Mr. Howard Stephens, Mr. Henry C. Stevens, Mr. Thomas Sumner, Mr. Laurance R. Webb, Mr. David Westneat.

ECONOMICS

Mr. Emile Grunberg, Head; Mr. Robert R. Black, Mr. James McLain, Mrs. Annette K. Serry.

EDUCATION—ELEMENTARY

Mr. Hjalmer W. Distad, Head; Miss Helen R. Becker, Mr. William H. Beisel, Mr. Marvin Chrisp, Mr. Howard R. Evans, Miss Rose Mary Kraus, Mr. Oliver Ocasek, Mrs. Helen W. Painter, Mr. Sumner Vanica, Miss Mary Elizabeth Verhoeven.

EDUCATION—SECONDARY

Miss Mabel M. Riedinger, Head; Mr. James E. Doverspike, Miss Lucile Gustafson, Mr. D. J. Guzzetta, Mr. Leslie P. Hardy, Mr. Alfred Johnson, Mr. Janko P. Kovacevich, Mr. Joseph McMullen, Mr. Chester T. McNerney, Mr. William I. Painter, Mr. W. A. Rogers, Mr. L. L. Smith, Mr. John Watt.

ENGINEERING—CIVIL

Mr. Duane Keller, Head; Mr. David Anderson, Mr. William M. Glazier, Mr. R. D. Landon, Mr. George Manos, Mr. A. M. Richards, Jr.

ENGINEERING—ELECTRICAL

Mr. Kenneth Sibila, Head; Mr. Joseph Edminister, Mr. Patrick J. Goodall, Mr. Robert Grumbach, Mr. Paul Huss, Mr. Milton Kult, Mr. Stanley D. Myers.

ENGINEERING—MECHANICAL

Mr. William Petry, Head; Mr. Michael Bezbatchenko, Mr. Robert Bowers, Mr. Anil K. Chatterjee, Mrs. Barbara Gsellman, Mr. E. K. Hamlen, Mr. Richard Henry, Mr. Robert Peringer, Mr. K. R. Rohrer, Mr. Earl Rottmayer, Mr. James Shearer.

ENGLISH

Mr. Charles Duffy, Head; Mr. James Bailey, Mr. James E. Ginther, Mrs. Bonnie Hankammer, Mr. Alan J. Harmata, Miss Dorothy Hockey, Miss Martha Hosfelt, Mr. John Hull, Mrs.

* Deceased 1961.

Julia Hull, Mrs. Rosalind Irish, Mr. David L. Jones, Mr. Don A. Keister, Miss Ladonna Koledin, Mr. Sydney J. Krause, Mr. Walter D. Lehrman, Mr. Gerald Levin, Miss Julia McMillen, Miss Mary Mostenic, Mr. Edward A. Paul, Mrs. Phyllis Paul, Mr. John S. Phillipson, Mr. Frank Phipps, Mrs. Mary Pulleyn, Mrs. Ruth Putman, Mr. Edgar C. Roberts, Mr. Dale Ross, Mrs. Margaret Schoenberg, Mr. Ronald G. Snider, Mr. William J. Stevens, Mrs. Cathryn Taliaferro, Mrs. Helen S. Thackaberry, Mr. Robert E. Thackaberry, Mr. Ulysses S. Vance, Miss Miriam Wein.

GENERAL BUSINESS

Mr. Charles F. Poston, Head; Mr. George M. Baker, Mr. Frank S. Brown, Mr. Chester F. Conner, Mr. John D. Chapman, Mr. James W. Dannemiller, Mr. John M. Glenn, Mr. Harry Hollingsworth, Mr. Edward C. Kaminski, Mr. William Lantz, Mr. W. W. Leigh, Mr. Lee S. McDonald, Mr. Stewart M. McKinnon, Mr. George McManmon, Mr. Donald R. Morris, Mr. Thomas Powers, Mr. K. L. Reynolds, Mr. Mark A. Riley, Mrs. Margaret Rogler, Mr. Barry K. Sugden, Mr. Edwin A. Young.

GENERAL STUDIES

Mr. Don A. Keister, Head; Mr. Nathan F. Cardarelli, Mr. Vernon L. Odom, Mr. L. Blaine Tewksbury.

GEOGRAPHY

Mr. Edward Jones.

HISTORY

Mr. George Knepper, Head; Mr. Howard Allen, Mr. Donfred H. Gardner, Mr. Robert Howes, Mr. David C. Riede, Mr. Edgar Toppin, Mr. Henry S. Vyverberg.

HOME ECONOMICS

Miss Irene C. Bear, Head; Miss Dorothy Laubacher, Mrs. Johanna Mally, Miss Mary H. Wilson.

INDUSTRIAL MANAGEMENT

Mr. Frank Simonetti, Head; Mr. Donald Becker, Mr. Paul Dunham, Mr. Andrew B. Grible, Mr. John Kidney, Mr. Thomas K. Kim, Mr. Thomas Sharkey, Mr. C. W. Vobbe.

LATIN AND GREEK

Mr. Theodore Duke.

LAW

Mr. Stanley A. Samad, Dean; Mr. James G. France, Mr. Stephen Gorove, Mr. George D. Haimbaugh, Jr., Mr. Louis T. Marlas, Mr. Richard Marshall, Mr. Marvin M. Moore, Mr. David H. Wilson.

MATHEMATICS

Mr. Samuel Selby, Head; Mr. William Beyer, Mr. Ernest H. Cherrington, Jr., Mr. Richard C. Davis, Mr. Stanley Dengler, Mrs. Annabelle Henry, Mr. Joseph C. Huber, Miss Will Lipscombe, Miss Margaret E. Mauch, Mr. Louis Ross, Mr. Blin B. Scatterday, Mr. Leonard Sweet, Mr. George Szoeke, Mr. Ernest A. Tabler.

MODERN LANGUAGES

Mr. Arno K. Lepke, Head; Mr. Gerald E. Cook, Mr. Donato Internoscia, Mr. Robert T. Ittner, Mr. John Pulleyn, Jr., Mr. Howard S. Robertson, Mr. Herbert W. Smith, Jr.

MUSIC

Mr. Farley Hutchins, Head; Mr. Robert B. Cole, Mr. Clarenz Lightfritz, Mr. John MacDonald, Mr. Milton Nelson, Mr. Robert Paolucci, Mr. Arthur Reginald, Mr. Lawrence Scarpitti, Mr. Henry P. Smith, Mr. John F. Stein, Miss Nellie Whittaker, Mr. Darrel E. Witters.

NURSING EDUCATION

Miss Evelyn Tovey.

PHILOSOPHY

Mr. Laurence J. Lafleur, Head; Mr. Foster S. Buchtel, Mr. Tad Clements.

PHYSICAL EDUCATION

Mr. Kenneth Cochrane, Head; Mr. James D. Cook, Mrs. Elizabeth Davis, Mr. Thomas W. Evans, Mr. Gordon Larson, Mr. Anthony S. Laterza, Mr. Walter Lipps, Mr. Andrew Maluke, Mrs. Gay Nokes, Miss Wilma Ruman, Mr. Hugh Thompson, Mr. Herbert P. Wells.

PHYSICS

Mr. Ernest R. Thackeray, Head; Mr. Arnold Benton, Mr. Fred Bueche, Mr. Omer R. Fouts, Mr. Alan N. Gent, Mr. James J. Shipman.

POLITICAL SCIENCE

Mr. Roy V. Sherman, Head; Mr. N. P. Auburn, Mrs. Bette Daneman, Mr. David King, Mr. Everett Lowe, Mr. Paul Weidner.

PSYCHOLOGY

Mr. Howard Maher, Head; Mr. Peter J. Hampton, Mr. Robert T. Harris, James R. Hodge (M.D.), Mr. Robert O. Kirkhart, Mr. John A. Popplestone, Mr. William M. Taylor, Mr. Weld W. Turner, Mr. Paul Twining, Mr. Edwin E. Wagner.

SOCIOLOGY

Mr. Charles Rogler, Head; Mr. Raymond R. Brown, Mr. Harmon O. DeGraff, Mr. Morris Freilich, Mr. Samuel C. Newman, Mrs. Juliet Saltman, Mr. Norman F. Washburne.

SPEECH

Mr. Ray H. Sandefur, Head; Mr. Frank T. Alusow, Mr. James F. Dunlap, Mrs. Phyllis Hardenstein, Miss Elizabeth Hittle, Mrs. Margaret Lefevre, Mr. William Mavrides, Mr. Donald S. Varian.

LIBRARY

1960-62

DOROTHY HAMLEN, *Librarian and Professor of Bibliography* (February 1937)
B.A., The University of Akron; B.S.L.S., Western Reserve University, 1942.

JOHN B. ARMSTRONG, *Head, Technical Processes Department, and Assistant Professor of Bibliography* (June 1955)
B.S., University of Pittsburgh; M.L.S., Carnegie Institute of Technology, 1950.

MRS. HELEN ARNETT, *Education Librarian and Assistant Professor of Bibliography* (1953)
B.A., The University of Akron; B.S.L.S., Western Reserve University; M.A., San Jose State College (Cal.), 1952.

ROBERT BLANKENSHIP, *Head, Audio-Visual Services Department* (1952) (July 1956)
B.S.B.A., The University of Akron, 1959.

MRS. BARBARA CLARK, *Cataloger* (1948)
B.A., The University of Akron, 1950.

MRS. RUTH CLINEFELTER, *Social Sciences Librarian and Assistant Professor of Bibliography* (June 1952)
B.A., M.A., The University of Akron; M.A.L.S., Kent State University, 1956.

PAULINE FRANKS, *General Reference Librarian and Assistant Professor of Bibliography* (1950)
B.S.Ed., Kent State University; B.S.L.S., Western Reserve University, 1940.

VIRGINIA GARDNER, *General Periodicals Librarian* (March 1961)
B.A., The University of Akron, 1953.

MARY GRACE HARRINGTON, *Business Administration Librarian and Assistant Professor of Bibliography* (November 1960)
B.A., The University of Akron; B.A.L.S., University of Michigan, 1939.

MRS. SANDRA GATES, *Rubber Division Librarian* (June 1960)
B.A., Ohio University, 1960.

MRS. SARA JENKINS, *Cataloger and Instructor in Bibliography* (May 1961)
B.Ed., The University of Akron; M.A.L.S., University of Denver, 1960.

MRS. LOIS MYERS, *Humanities Librarian and Assistant Professor of Bibliography* (1946)
B.A., Wittenberg University; B.S.L.S., Carnegie Institute of Technology, 1939.

*GENIE J. PRESTON, *Associate Professor Emeritus of Bibliography* (1939)
B.A., Northwestern University; M.A., University of Illinois, 1936.

MRS. HELEN THORNBERG, *Serials Librarian and Instructor in Bibliography* (1959)
B.A., College of William and Mary; M.S.L.S., Western Reserve University, 1959.

RESERVE OFFICERS' TRAINING CORPS

DEAN D. H. GARDNER, *Civilian Coordinator*

1961

ARMY

HORACE D. HARBY, *Professor of Military Science* (July 1958)
B.S., Clemson College, 1936; Lieutenant Colonel, Infantry.

JAMES C. BAUER, *Assistant Professor of Military Science* (May 1960)
B.A., The University of Akron, 1951; Captain, Infantry.

LOUIS T. D'AVANZO, *Assistant Professor of Military Science* (October 1958)
B.A., St. Lawrence University, 1942; Major, Corps of Engineers.

GEORGE W. DAVIS, *Instructor in Military Science* (May 1959)
Master Sergeant.

ROBERT E. DOLLAR, *Administrative Assistant* (March 1961)
Sergeant First Class.

WALFRED J. HELBERG, *Assistant Professor of Military Science* (August 1960)
B.G.E., University of Omaha, 1959; Captain, Infantry.

CHARLES K. LIKENS, *Supply Sergeant* (June 1959)
Sergeant.

JOHN T. MURRAY, *Instructor in Military Science* (October 1959)
Master Sergeant.

JOHN H. STEELE, *Instructor in Military Science* (June 1957)
Georgetown University; Kent State University; The University of Akron; Master Sergeant.

AIR FORCE

TIMOTHY W. DONOHUE, *Professor of Air Science* (June 1961)
B.A., St. John's University; LL.B., Columbus University, 1955; Lieutenant Colonel, USAF.

DONALD E. BURNS, *Supply Sergeant* (July 1958)
Staff Sergeant, USAF.

GLEN C. CHILDS, *Assistant Professor of Air Science* (September 1959)
B.S., United States Military Academy, 1945; Major, USAF.

EARL H. COLEMAN, *Assistant Professor of Air Science* (December 1958)
B.S., Bemidji State College (Minnesota), 1951; Captain, USAF.

BENNETT K. HOISINGTON, *Administrative Assistant* (August 1959)
Airman First Class, USAF.

ROY C. JOHNSON, *Administrative Assistant* (June 1960)
Technical Sergeant, USAF.

LEONARD B. REDD, *Assistant Professor of Air Science* (June 1958)
B.S., Alabama Polytechnic Institute; LL.B., Jones Law School, 1951; Major, USAF.

JOHN W. RHOADES, *Administrative Assistant* (May 1960)
Staff Sergeant, USAF.

FORD H. SMART, *Assistant Professor of Air Science* (April 1958)
B.A., Ohio Wesleyan, 1952; Captain, USAF.

* Retired June 1955.

INSTITUTE OF RUBBER RESEARCH

1960-62

MAURICE MORTON, *Director of the Institute of Rubber Research and Professor of Polymer Chemistry* (October 1948)
B.S., Ph.D., McGill University, 1945.

G. STAFFORD WHITBY, *Consultant on Rubber Research and Professor Emeritus of Rubber Chemistry* (1942)
A.R.C.Sc., B.S., University of London; M.S., Ph.D., D.Sc., McGill University, 1939; LL.D., Mount Allison University, New Brunswick, 1932; D.Sc., The University of Akron, 1958.

*FRED J. BUECHE, *Research Associate and Professor of Polymer Physics* (1959)
B.S., University of Michigan; Ph.D., Cornell University, 1948.

ALAN N. GENT, *Research Associate and Professor of Polymer Physics* (April 1961)
B.S., Leicester Technical College and University College; B.Sc. (Special), Ph.D., University of London, 1955.

H. JAMES HARWOOD, *Research Associate and Assistant Professor of Chemistry* (October 1959)
M.S., The University of Akron; Ph.D., Yale University, 1956.

MRS. IRJA PIIRMA, *Research Associate* (December 1952)
Diploma in Chemistry, Technische Hochschule of Darmstadt; M.S., Ph.D., The University of Akron, 1960.

KENNETH W. SCOTT, *Research Consultant* (November 1958)
B.S., University of Michigan; M.A., Ph.D., Princeton University, 1949.

HOWARD L. STEPHENS, *Administrative Assistant and Assistant Professor of Chemistry* (1950)
B.S., M.S., Ph.D., The University of Akron, 1960.

DAVID F. WESTNEAT, *Research Consultant and Assistant Professor of Chemistry* (1960)
B.S., Allegheny College; Ph.D., University of Pittsburgh, 1956.

ROOP S. BHAKUNI, *Sohio Fellow for 1961-62* (1961)
B.Sc., M.Sc., D.S.B. Government College, India; M.Tech., Indian Institute of Technology, 1959.

NELSON C. BLETSO, *Research Chemist* (February 1960)
B.S., Youngstown University; M.S., University of Pittsburgh, 1953.

NISSIM CALDERON, *Research Chemist* (1959)
M.Sc., Hebrew University, Jerusalem, 1959.

MRS. PATRICIA M. DREYFUSS, *Sohio Fellow for* 1960-61; *National Science Foundation Fellow for 1961-62* (1960)
B.S., University of Rochester, 1954.

FREDERICK R. ELLS, *U. S. Rubber Fellow for 1960-61* (October 1959)
B.S., Lehigh University, 1956.

ROBERT F. FEDORS, *National Science Foundation Fellow for 1960-61* (1958)
B.S., Purdue University, 1955.

LEWIS J. FETTERS, *General Tire Fellow for 1960-61* (1959)
B.A., College of Wooster, 1958.

HOWARD K. FOLEY, *Research Chemist* (January 1961)
B.S., Youngstown University; M.S., The University of Akron, 1956.

SUDHESHCHANDRA GADKARY, *Research Chemist* (March 1960)
B.Sc., University of Poona, India; B.Sc. (Tech.), University of Bombay, India; M.S., The University of Akron, 1956.

WILLIAM M. GIFFEN, *Phillips Petroleum Fellow for 1960-61* (November 1959)
B.S., M.S., Ph.D., The University of Akron, 1961.

JERRY S. GLAZMAN, *Goodyear Fellow for 1960-61; National Science Foundation Fellow for 1961-62* (1960)
B.S., The University of Akron, 1960.

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* Resigned August 1961.

RUSSELL K. GRIFFITH, *Firestone Fellow for 1960-61* (1959)
B.A., Ohio Wesleyan University, 1959.

THADDEUS E. HELMINIAK, *Research Chemist* (February 1960)
B.S., M.S., John Carroll University, 1959.

FRANK N. KELLEY, *National Science Foundation Fellow for 1960-61* (1958)
B.S., M.S., Ph.D., The University of Akron, 1961.

GORDON L. JENDRASIAK, *Research Physicist* (1961)
B.S., M.S., Michigan State University, 1957.

ANTONY T. KANAKKANATT, *Union Carbide Corporation Fellow for 1960-61* (1960)
B.Sc., Madras University, India; M.S., Marquette University, 1960.

JAMES F. KENNEY, *Research Chemist* (1961)
B.S., M.S., Howard University, 1958.

VASANT V. KOLPE, *Research Chemist* (June 1960)
B.S.Ch.E., University of Bombay, India; M.S., The University of Akron, 1961.

BERNARD F. LOSEKAMP, *Research Chemist* (1961)
B.S., M.S., Xavier University, 1961.

JOSEPH F. MEIER, *Research Chemist* (January 1959)
B.S., John Carroll University; M.S., The University of Akron, 1960.

MARION C. MORRIS, *Research Chemist* (February 1958)
B.S., M.S., The University of Akron, 1960.

CLYDE H. NESTLER, *Research Chemist* (1961)
B.S., M.S., Western Illinois University, 1955.

RONALD L. RONGONE, *Richardson Fellow for 1960-61* (1960)
B.S., Kent State University, 1943.

DANIEL P. SHINE, *Phillips Petroleum Fellow for 1960-61* (1957)
B.S., M.S., Xavier University; Ph.D., The University of Akron, 1961.

TESTING LABORATORY

DAVID E. ANDERSON, *Director of the Testing Laboratory and Associate Professor of Engineering Materials* (1923)
B.A., Augustana College; M.S., University of Chicago, 1923.

INSTITUTE FOR CIVIC EDUCATION

L. L. SMITH, *Director of the Institute for Civic Education and Assistant Professor* (August 1956)
B.A., Columbia University; M.A., Columbia University, Teachers College, 1947.

WALTER C. BURKE, JR., *Assistant to the Director of the Institute for Civic Education* (February 1961)
B.A., The University of Akron, 1953.

BARBARA A. BANGHAM, *Administrative Assistant* (July 1960)
B.A., The University of Akron, 1960.

SPEECH AND HEARING CLINIC

RAY H. SANDEFUR, *Professor of Speech and Head of the Department* (1950)
B.A., B.S.Ed., Emporia State Teachers College; M.A., University of Colorado; Ph.D., State University of Iowa, 1950.

ELIZABETH J. HITTLE, *Director of the Speech and Hearing Clinic and Assistant Professor of Speech* (1950)
B.S.Ed., The University of Akron; M.A., Kent State University, 1949; Western Reserve University.

MRS. MARGARET LEFEVRE, *Speech Consultant and Assistant Professor of Speech* (February 1959)
A.B., Western Michigan University; M.A., University of Minnesota; Ph.D., Western Reserve University, 1957.

UNIVERSITY HEALTH SERVICE

WILLIAM REYNOLDS, M.D., *University Physician* (February 1956)
M.D., Wake Forest, 1948.

MRS. EMMA HENRY, R.N., *University Nurse* (1935) (1950) (1959)
Akron City Hospital, 1931.

PSYCHOLOGICAL SERVICES

PETER J. HAMPTON, *Director of Psychological Services and Associate Professor of Psychology* (August 1954)
B.A., M.A., University of Manitoba; Ph.D., Western Reserve University, 1950.

FRANCIS J. WERNER, *Office Manager and Instructor in Psychology* (August 1950)
B.A., M.A., The University of Akron, 1952.

PRESIDENTS OF BUCHTEL COLLEGE

*S. H. McCollester, D.D., Litt.D.	1872-1878
*E. L. Rexford, D.D.	1878-1880
*Orello Cone, D.D.	1880-1896
*Charles M. Knight, D.Sc. (ad interim)	1896-1897
*Ira A. Priest, D.D.	1897-1901
*A. B. Church, D.D., LL.D.	1901-1912
*Parke R. Kolbe, Ph.D., LL.D.	1913-1914

PRESIDENTS OF THE UNIVERSITY OF AKRON

*Parke R. Kolbe, Ph.D., LL.D.	1914-1925
*George F. Zook, Ph.D., LL.D.	1925-1933
*Hezzleton E. Simmons, M.S., D.Sc., LL.D.	1933-1951
Norman P. Auburn, A.B., D.Sc., Litt.D., LL.D.	1951-

DEANS OF THE COLLEGES OF THE UNIVERSITY OF AKRON

The Buchtel College of Liberal Arts

*Albert I. Spanton, M.A., Litt.D.	1913-1938
Charles Bulger, Ph.D., Litt.D.	1938-1948
Ernest H. Cherrington, Jr., Ph.D.	1948-1960
Thomas Sumner, Ph.D.	1960-

The College of Engineering

*Frederic E. Ayer, C.E., D.Eng.	1914-1946
R. D. Landon, C.E., M.S.	1946-

The College of Education

*W. J. Bankes, M.A.	1921-1931
*Albert I. Spanton, M.A., Litt.D. (acting)	1931-1933
Howard R. Evans, Ph.D.	1933-1942
Hjalmer W. Distad, Ph.D. (acting)	1942-1944
Howard R. Evans, Ph.D.	1944-1958
Dominic J. Guzzetta, Ed.D. (acting)	1958-1959
Chester T. McNerney, Ph.D.	1959-

The College of Business Administration

Warren W. Leigh, Ph.D.	1953-

The College of Law

Stanley A. Samad, LL.M.	1959-

The Graduate Division

Charles Bulger, Ph.D., Litt.D. (Dean of Graduate Work)	1933-1951
Ernest H.Cherrington, Jr., Ph.D. (Director of Graduate Studies)	1955-1960
Ernest H. Cherrington, Jr., Ph.D. (Dean of the Division)	1960-

The General College

Dominic J. Guzzetta, Ed.D.	1959-

The Evening and Adult Education Division

L. L. Holmes, M.A. (Director)	1927-1932
Richard H. Schmidt, M.A. (Director)	1932-1934
Leslie P. Hardy, M.S.Ed. (Director)	1934-1953
E. D. Duryea, Ed.D. (Dean)	1953-1955
Dominic J. Guzzetta, Ed.D. (Dean)	1956-1959
William A. Rogers, Ed.M. (Dean)	1959-

* Deceased

CURRENT MEMBERS OF COLLEGE ADVISORY COMMITTEES

The Buchtel College of Liberal Arts

Mr. Paul E. Belcher, Mrs. Richard Corns, Mrs. Sam DuPree, Dr. William H. Falor, Mr. Arden E. Firestone, Mrs. Lincoln Gries, Mr. Alfred Herberich, Mr. Robert S. Pflueger, Dr. Waldo L. Semon, Dr. Paul M. Zeis.

The College of Engineering

Mr. G. L. Bruggemeier, Mr. Russell DeYoung, Mr. J. Earl Gulick, Mr. Arthur Kelly, Mr. Thomas A. Knowles, Mr. Wendell R. LaDue, Mr. Vern Oldham, Mr. Clarence A. Palmer, Mr. Francis Stafford, Mr. Ernest S. Theiss.

The College of Education

Mrs. C. D. Barrett, Mr. Carl Coffeen, Mr. Ralph Ely, Mrs. Stanley Emmitt, Mr. Martin Essex, Dr. Richard P. Gousha, Mr. Vincent Johnson, Mr. Norman Malone, Mrs. Donald Minnig, Mr. T. O. Morgan.

The College of Business Administration

Mr. F. J. Carter, Mr. David C. Corbin, Mr. George Daverio, Mr. John N. Hart, Mr. Jerome J. Kaufman, Mr. Hesket H. Kuhn, Mr. Joseph A. Meek, Mr. M. G. O'Neil, Mr. M. S. Richardson, Mr. E. D. Warner.

The College of Law

The University of Akron College of Law Committee of the Akron Bar Association serves as Advisory Committee to the College of Law. Members are: Mr. Hugh Colopy, Mr. C. Blake McDowell, Sr., Mr. Raymond J. McGowan, Mr. James Olds, Mr. J. P. Riddle, Mr. Bernard J. Roetzel, Mr. Joseph Wise, Mr. John Wortman, chairman.

The Graduate Division

Dr. Karl Arnstein, Mr. E. A. Brittenham, Mr. Raymond Brown, Dr. James D. D'Ianni, Dr. John E. Hartzler, Dr. F. W. Stavely, Mr. Frank W. Steere, Jr., Dr. Guido H. Stempel, Dr. Franklin Strain, Dr. Rex H. Wilson.

The Evening and Adult Education Division

(The Evening College and The Community College)

Mr. R. W. Apple, Mr. Arthur Brintnall, Mr. Chester Conner, Mr. Joseph Glazer, Mr. R. E. Hanna, Mrs. George Leonard, Mrs. D. A. MacDougall, Mrs. Fred Nimmer, Judge Thomas Powers, Mr. T. W. Prior.

PUBLIC SCHOOL FACULTIES COOPERATING WITH THE COLLEGE OF EDUCATION

OFFICERS OF AKRON PUBLIC SCHOOLS

Martin Essex, M.A., Ped.D., LL.D. ..... *Superintendent of Schools*
Ralph Gillman, M.A. ..... *Assistant Superintendent*
William Root, Ph.D. ..... *Assistant Superintendent*
George F. Weber, M.A.Ed. ..... *Executive Director*
Jeannette Marsh, M.A. ..... *Principal of Spicer School*

OFFICERS OF OTHER COOPERATING SCHOOLS

Carl Coffeen, M.A.Ed., L.H.D. ..... *Superintendent of Schools, Summit County*
Richard P. Gousha, Ed.D. ..... *Superintendent of Schools, Cuyahoga Falls*
Ralph Ely, M.A. ..... *Superintendent of Schools, Barberton*
R. M. Erwine, M.A.Ed. ..... *Superintendent of Schools, Coventry Township*
Ralph C. Schlott, M.A. ..... *Superintendent of Schools, Norton Township*

TEACHERS IN SPICER DEMONSTRATION LABORATORY SCHOOL, 1960-1961

Mrs. Olga Adams (5th grade), Miss Alberta Banton (4th grade), Mrs. Florence Benson (7th grade), Mrs. Elsie Bowman (6th grade), Mrs. Mildred Collis (1st grade), Mr. Robert Eley (Inst. Music Aud.), Mrs. Joann Heck (Gym), Miss Jean Hutchinson (2nd grade), Miss Helen Kopmanson (3rd grade), Miss Rose Mary Kraus (2nd grade), Mrs. Andigoni Latrashe (French), Mr. B. Gene Leach (5th grade), Miss Virginia Lloyd (Principal), Mr. Louis Lore (7th grade), Mrs. Bessie Miller (1st grade), Mrs. Helen Mitchell (Music), Mr. Milton Nelson (Inst. Music Aud.), Miss Catherine Redinger (Kindergarten), Miss Edith Richards (Art), Miss Laura Roundy (1st grade), Miss Dorothy Schorle (2nd grade), Mr. Paul Spencer (6th grade), Miss Anne Sperry (3rd grade), Mrs. Marie Wilson (4th grade).

SUPERVISING TEACHERS SPRING, SUMMER AND FALL 1960, AND SPRING 1961

Zella Allard (Doylestown), Lillian Artola (Evening High-East), Bruce Averell (Schumacher), Mrs. Barbara Baird (South), Helen Baker (Rimer), Harold Bakewell (Spicer, Fraunfelter), Maryann Barbuzza (Central), Michael Barich (Simon Perkins), Elizabeth Barrow (Goodyear), Bonnie Battels (Lawndale), Edna Bauch (Schumacher), Louis Bauman (Kenmore), Florence Benson (Spicer), Doreen Bernel (Schumacher), Frances Biondo (Roswell Kent), Ruth Biondo (Simon Perkins), Vincent Biondo (Buchtel), James Blackstock (Garfield), William Blake (Thornton), Julia Blalock (Leggett), Zella Boedicker (Norton), Marilyn Bolender (Central), Twyla Book (Barberton), Meryl Boxler (Spicer), Ambrose Brazelton (Bryan), Richard Brindley (Barberton), Kenneth Brode (Cuyahoga Falls), Dorothy Browne (Voris), Fanny Brundage (Central), Paul Bryant (Ellet), Frank Buhas (Garfield), Helen Bunts (Lincoln), Sue Burns (Spicer), Louise Burton (Windemere), Dominic Cacioppo (Heminger), Marion Caldwell (Fairlawn), Ruth Camehl (Margaret Park), Janice Carroll (Windemere), Rollin Clayton (Bryan), Charlotte Claytor (Voris), Jack Coberly (Central), Mary Collins (Miller), Neal Collins (South), Anna Conti (Central), William Copeland (Kenmore), Ellen Cook (West), Donna Cooper (Margaret Park), Martha Crabbe (Hill), Mary Ann Culver (West Jr. High), Joanne Cutrone (Perkins), Nancy Daniel (Doylestown), Dorothy Darden (Barber), Juanita Davis (Central), Pauline DeLong (Fraunfelter), Robert Dengler (Garfield), Rita DeSantis (Lincoln), Lawrence Dessart (Goodyear), Joseph Dick (Central), Paul DiMascio (Robinson), Theodor Donn (Central), Emil D'Zurik (Barberton).

Jewell Ellet (Ellet), Adda Erwine (Thomastown), Janet Evans (East), Walter Evans (Mogadore), Rae Marie Fabre (Thomastown), Helen Fairbanks (Seiberling), Ernest Fenstermaker (South), Madeline Fifers (Perkins), Helen Fisher (Rankin), Madeline Foust (Fairlawn), Mary Gallagher (West), Philip Gertz (Mason), Myra Graham (Guinther), Lillie Greer (Smith), Belle Grensler (Lincoln), Rosemary Grube (Evening High), Eleanor Halas (Glover), Charles Hale (Goodrich), Elizabeth Hall, Vida Hall (South), Bonnie Hankammer (Board of Education), Cecelia Hanson (Hotchkiss), Frank Hanson (North), Dorothy Harold (Simon Perkins), John Harper (Firestone Park), Marjorie Harry (Barber), Elizabeth Harvey (Schumacher), Betty Heepe (Schumacher), Marian Hess (Schumacher), Josephine Hinsdale (Buchtel), Mary Hoffman (Barber), Leone Horning (Forest Hill), Alma Hose (Margaret Park), Jean Howes (East), Jerold Hupp (Cuyahoga Falls).

Marvel Jacobson (Erie Island), Iva James (Forest Hill), Barbara Johnson (Ellet), Margaret Johnson (Hatton), Olga Johnson (East), Richard Kaiser (Coventry Township), John Kane (Central), Mary Kapioltas (Kenmore), Donald Karaiskos (Thornton), Janie Kennedy (Perkins), Lois Keyly (Kenmore), Charles Kidder (Buchtel), Bess Krahl (Fairlawn), Grace Kyle (Portage Path), Tom Lanning (Barberton), Alvalyn Larson, Felix Latona (Central), Iva Leatherman (St. Paul's), Mary Leitch (Hyre), Joseph Lentine (North), Frances Lipovac (Kenmore), Jane Londa (Central), Peter Lukacik (Betty Jane), Buelah Luke (Kenmore), Ruth Lynch (Harris), Barbara Lynn (Windemere).

Hubert Mabe (Lincoln), Ruth Mahoney (Lincoln), John Marvin (West), A. H. Mase (West), Maryann Matzules (Central), Doris Maus (Perkins), Joanne Mazzaferro (Lincoln), Margaret McClain (Lane), Elaine McEldowney (Schumacher), Lillian McGuire (Ellet), Lucy McMurtrey (Fraunfelter), Nancy Mettler (Central), Gertrude Miller (Goodyear), Helen Mikolashek (Lincoln),

Marion Mondl (King-Garfield), Marjorie Moore (East), Jack Morganstern (Barberton), Kathleen Morris (Barber), Frances Moyer (Portage Path), Otto Muha (Voris), Jan Murphy (Hudson), Robert Murray (Doylestown), William Nicholson, Josephine Nitz (Central), Ethel Oakman (Firestone Park), Andrew Oravecz (Evening High), Marjorie Ormeroid (Lincoln), Moulton Ormeroid (Garfield), Romeo Parenti (Central), Dominic Patella (East), Noda Patella (Henry), Anne Perkins (Jackson), Wilbur Pierce (Garfield), Mary Plane (North), Eleanor Porr (Doylestown), Anthony Prasher (Norton), George Pryor (Kenmore).

Helen Rachita (Mason), Mary Reese (Windemere), Eugenia Rehm (Garfield), Helen Reid (Forest Hill), Katherine Rephann (Lawndale), Marjorie Rhoades (Barber), Maxine Riblet (Voris), Jeannette Richardson (Barber), Gloria Rittenhouse (Leggett), Reba Robinson (Barberton), Norma Rogers (Jennings), Irene Ruehle (Lincoln), Raymond Rush (Goodyear), Lela St. John (Jennings), Patricia Salem (Mason), Norge J. Santine (Innes), William Satterlee (South), Lawrence Scarpitti (Itinerant), Rosa Schroeder (Seiberling), Kathleen Scott (Spicer), Gene Scruggs (Allen, Miller), George Seigman (Ellet), Leroy Sellers (Barber), Fanny Severns (Mason), Dorothy Shank (North), Geraldine Shank (Schumacher), William Shaw (East), Mercedes Sheibley (Henry), Myron Shetler (Cuyahoga Falls), Joseph Siegferth (Central), Evelyn Smith (Central), Luther Smith (East), Mildred Snelling (Lawndale), Ronald Snider (North), Paul Spencer (Spicer), Marian Spicer (Kenmore), Beatrice Sprague (Central), Erma Stark (Forest Hill), Mildred Stebbins (King), Mildred Steese (Rankin), Leona Sterley (North), Barbara Stevic (Richardson-Cuyahoga Falls), Jean Stonestreet (Seiberling), Ethelyn Stueland (Smith), Freda Sullivan (Mason), Robert Summy (Cuyahoga Falls), Estella Swearingen (Cuyahoga Falls), Betty Sweeney (Kenmore), Frances Szoke (Kenmore), William Tenney (Perkins), Arnold Thomas (Ellet), Helen Thurston (Perkins), Dominic Triferro (Ellet), Isa Udell (Central), Wade Underwood (Goodrich), Gaynelle Upchurch (East).

Robert Vernon (Garfield), Eugene Vinciguerra (Ellet), Kate Vogel (Kent), Laurette Wages (Central), William Waggoner (Garfield), Helen Wagner (Jennings), Marian Wagner (Schumacher), Clyde Walchuk (Firestone Park), Blanche Walker (Rankin), Esther Wandes (Jennings), Charlene Weber (Windemere), Sarah Webster (Henry), William Weiss (North), Doris Wells (Rankin), Robert White (North), Parker Wilcox (North), Ella Williams (Barberton), James Wilson (Thornton), Marie Wilson (Spicer), Stella Wilson (Ellet), Janice Withcrow (East), Sara Wood (Schumacher), Nelle Yoder (Jennings), Estella Yonally (Voris), John Yovich (Goodrich), Mary Zigler (Mason).

THE ALUMNI ASSOCIATION

Graduates and former students are eligible for membership in The University of Akron Alumni Association, an active group with branches in about 20 cities in addition to Akron.

Current membership in the Akron area totals about 8,500 men and women. This is about half of the entire Alumni group all over the world.

Alumni members have shown their loyalty to their Alma Mater by making generous financial contributions to campus funds, attending campus functions, and supporting University projects. Alumni representatives on committees and boards help determine and carry out the philosophies of the University.

President of the Alumni Association: W. Richard Wright, Akron.

Presidents of Alumni Clubs in other cities and areas are: Eugene J. O'Neil (Boston), Lee Atwell (Canton-Massillon), L. F. Hampel (Chicago), Walter J. Dolan (Columbus), Don T. Carney (Denver), Robert F. Denholm (Detroit), Jack C. Looney (Elyria-Lorain), Donald W. Mills (Erie), Arthur Ranney (Florida), Arthur Croysdale (South Florida), Wade C. Ruble (Los Angeles), William T. Farmer (Minneapolis-St. Paul), Edward V. Baich (New York), Richard Wagner (Pittsburgh), Miss Josephine Amer (San Francisco), William R. Schueneman (Washington, D. C.).

Directory of

STUDENT ORGANIZATIONS

HONORARY

Alpha Chi Sigma (N) Chemistry; Alpha Lambda Delta (N) Freshman Scholastic; Alpha Sigma Lambda (N) Evening; A. E. Honorary Fraternity (L) Evening; Arnold Air Society (N) Advanced Air Force ROTC; Beta Delta Psi (L) Commerce; Kappa Delta Pi (N) Education; Omicron Delta Kappa (N) Men's Activities; Pershing Rifles (N) Basic Military; Phi Alpha Theta (N) History; Phi Eta Sigma (N) Freshman Scholastic; Phi Sigma Alpha (L) Liberal Arts Scholastic; Phi Sigma Society (N) Biological; Pi Kappa Delta (N) Forensic; Pi Omega Pi (N) Business Education; Pi Sigma Alpha (N) Political Science; Pierian (L) Senior Women's Activities; Psi Chi (N) Psychology; Sabre Squadron (L) Basic Military; Scabbard and Blade (N) Advanced Military; Sigma Pi Epsilon (L) Education; Sigma Tau (N) Engineering; Sigma Theta Tau (L) Secretarial Science; Sigma Xi Club (N) Tau Kappa Phi (L) Home Economics.

STUDENT CLUBS

American Institute of Electrical Engineers; American Society of Civil Engineers; American Society of Mechanical Engineers; Association for Childhood Education; Art Club; Biology Club; Blue and Gold Music Association; Campus Christian Fellowship; Chemistry Club; Christian Science Organization of The University of Akron; Commerce Club; Eastern Orthodox Christian Fellowship; Economics Association; Future Teachers of America; History Club; Home Economics Club; Independent Student Organization; Johnson Club; LeCercle Francais; Marketing Club; Newman Club; Ohio Society of Professional Engineers; Philosophy Club; Physical Education Club; Physical Education Society; Physics Club; Political Science Club; Psychology Club; Radio and Television Workshop; Secretarial Science Club; Society for Advancement of Management; Sociology Club; Speech Club; Student Bar Association; Tertulia Espanola; The United Nations Club; University Christian Fellowship; University Theatre; Varsity "A" Club; Women's Athletic Association; YMCA; YWCA.

SORORITIES

Alpha Delta Pi (N) Chartered 1938; Alpha Gamma Delta (N) Chartered 1922; Delta Gamma (N) Chartered 1879; Gamma Beta (L) Evening Session, Chartered 1935; Ivyettes (L) Chartered 1959, now affiliated with Alpha Kappa Alpha (N); Kappa Kappa Gamma (N) Chartered 1877; Phi Mu (N) Chartered 1912; Theta Phi Alpha (N) Chartered 1931; Theta Upsilon (N) Chartered 1939; Zeta Tau Alpha (N) Chartered 1929.

FRATERNITIES

Alpha Epsilon Pi (N) Chartered 1941; Alpha Phi Alpha (N) Chartered 1957; Lambda Chi Alpha (N) Chartered 1919; Phi Delta Theta (N) Chartered 1875; Phi Kappa Tau (N) Chartered 1938; Phi Sigma Kappa (N) Chartered 1942; Pi Kappa Epsilon (L) Chartered 1882; Tau Kappa Epsilon (N) Chartered 1948; Theta Chi (N) Chartered 1942; Chi Sigma Nu (N) (Evening Session) Chartered 1932.

(N) = National (L) = Local

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Formal Objectives of the University and of each College

GENERAL OBJECTIVES OF THE UNIVERSITY

The University of Akron is a municipal university supported in part by city taxes. It, therefore, plans its educational services especially to serve the people of Akron.

The University has as its aims:

To give students a survey of the chief fields of knowledge and thus acquaint them with the world of nature and human life; to develop their ability to make sound judgments and to profit from experience; to arouse their intellectual curiosity and stimulate their scholarly growth; to aid them in their physical well-being; to help them to appreciate beauty in all its forms and thus to furnish them with resources for enjoying leisure hours.

To develop and strengthen in students a sense of social responsibility so that they might have a proper regard for the rights of others; to prepare them for a sane and loyal family life and an active and intelligent citizenship.

To prepare students for greater social and individual effectiveness in public service, commerce and industry, and the professions; for entering the professional schools of law, medicine, and dentistry, and for advanced study in other fields; for careers in art, music, home economics, and secretarial science.

In the attainment of these objectives, the University will utilize its available resources to the utmost. Students will be expected to have a satisfactory degree of intellectual maturity, and adequate scholastic preparation along with the necessary aptitudes and interests. It is also expected that their educational objectives will harmonize with those of the University.

The University has further aims:

To offer students graduate education for which they may be qualified and which they may require for the full development of their scholarly and professional capacities, provided that such programs of study are determined to be academically sound and feasible.

To provide expert advice for various civic and educational agencies; to furnish a scientific testing service for commerce and industry; to offer educational programs for the dissemination of culture and knowledge.

OBJECTIVES OF THE BUCHTEL COLLEGE OF LIBERAL ARTS

To acquaint students with the world of nature and human life by introducing them to the chief fields of knowledge.

To train them in the scientific method, and help them form habits of clear thinking.

To arouse their intellectual curiosity and stimulate their scholarly growth.

To help them appreciate beauty in all its forms, and thus furnish them with resources for enjoying their leisure hours.

To develop and strengthen in them a sense of social responsibility in order that they may have a proper regard for the rights of others, and to prepare them for an active and intelligent citizenship.

To help them acquire poise and develop a moral strength adequate to cope with the various situations of life.

OBJECTIVES OF THE COLLEGE OF ENGINEERING

It is the aim of the College of Engineering to provide basic training for effective living in a modern society as well as to provide the fundamentals necessary for a career in engineering.

Since the fundamentals in all branches of engineering are identical, the program for the first two years is the same for all students. Upon satisfactory completion of this phase of the curricula, students select their field of specialization and are promoted to the Upper College department of their choice.

OBJECTIVES OF THE COLLEGE OF EDUCATION

The objectives of the College of Education are:

I. To prepare for our nation's schools teachers and other professional personnel who have the following competencies:
   A. An interest in Education as a field of study, an enthusiasm for teaching as a profession, and an acceptance of the teacher's obligation for continued intellectual and professional growth.
   B. A commitment to the free, public school system of the United States and an understanding of its vital role in a free society.
   C. Skill in directing the learning of immature persons which results from a knowledge of the principles of human growth and development, an understanding of the principles of teaching as applied to the planning, directing, and evaluating of learning on the academic level for which a student is preparing.
   D. An understanding of the fundamental problems of Education and some competence in the techniques of dealing with these problems.
   E. The integration of the foregoing understandings and skills in an actual teaching situation.

II. To provide the academic leadership in developing and maintaining University-wide programs which will lead the potential teacher to develop:
   A. The understandings, skills, and attitudes which characterize the liberally educated person.

B. Personal attributes and behavior traits which characterize the emotionally mature person.
C. Mastery of the subject matter he expects to teach and supporting knowledge of related fields.

III. To increase the competence and the intellectual and professional growth of teachers in service, and to prepare educators for advanced positions through a diversified graduate program.
IV. To provide community leadership in developing a variety of programs to encourage public study and understanding of American Education.
V. To provide expert advice and service to school systems and communities seeking help in solving educational problems.
VI. To contribute to the continued improvement of education and the profession by encouraging research, field service, and other scholarly activity by the faculty of the college.

OBJECTIVES OF THE COLLEGE OF BUSINESS ADMINISTRATION

The College of Business Administration is for men and women who plan to enter the fields of business administration, accounting, marketing and advertising, industrial management, or secretarial science. In addition to the four-year curriculums, short-term educational programs are offered in the day and evening sessions.

The management of business enterprise requires a broad social, economic, and political background; a trained mind; an inquiring attitude; a thorough knowledge of business fundamentals and skill in the uses of management tools and techniques. A program of business training directed toward the development of a high degree of intellectual and professional competence is therefore essential.

The primary aim of the College is to provide professional education at the upper university level. The lectures, problems, and inspection trips integrate theory and practice and assure thorough preparation. A capstone of business experience will provide professional background and bring out qualities of leadership. For those students who plan to teach or pursue advanced study, a solid educational foundation is provided.

The College maintains a sound balance between liberal education and professional courses. Students plan their programs so that approximately 50 per cent of their courses fall in the area of liberal education, about 25 per cent in general business subjects, and not more than 25 per cent in the specialized field of interest.

OBJECTIVES OF THE COLLEGE OF LAW

The University of Akron College of Law offers a four-year program of legal education leading to the Bachelor of Laws degree. The aims of the program of instruction are to prepare students for a learned profession, equipped to fulfill their roles as protectors of the rights of the public and of the individual, as officers of the courts, as leaders in governmental affairs, and as designers of a legal system to meet more effectively the changing needs of our society. In furtherance of these aims the program and methods of instruction are designed to impart information concerning legal institutions, jurisprudence, and basic principles of the substantive and procedural law, to develop the powers of legal analysis and legal reasoning, to develop an active and critical attitude rather than a passive approach toward law and its social implications, to instill a sense

of professionalism and a high sense of ethical values in the practice of law and to develop technical skills in legal advocacy, draftmanship, research and writing.

The casebook method of instruction is extensively employed throughout the four-year period of instruction. During the last half of the third year, and in the fourth year, in addition to the casebook method, the method of instruction of problem solving and discussion in small groups is provided, through seminars and a reasonable freedom in selection of electives.

OBJECTIVES OF THE R.O.T.C. PROGRAM

1. To develop character and good moral habits.
2. To inculcate good habits of citizenship in young men and acquaint them with the duties, responsibilities, and obligations of citizens.
3. To make R.O.T.C. an integral and useful part of the college and community.
4. To produce qualified career officers for the U.S. Army and U.S. Air Force.
5. To produce qualified reserve officers for the U.S. Army and U.S. Air Force.

OBJECTIVES OF THE GRADUATE DIVISION

The Graduate Division is organized for the purpose of providing properly qualified students with the graduate education which they may require for the full development of their scholarly and professional capacities, subject to the criteria that all such programs are determined to be academically sound and feasible.

Graduate education involves the extension of knowledge. However, it is by no means a mere continuation of undergraduate study. Graduate education is more concerned with the significance of facts than with their accumulation. While the latter usually constitutes a necessary portion of a graduate program, it must not be regarded as an end in itself. The primary purpose is to orient the student toward research in its broadest connotation and to give him experience in the methods by which information is evaluated and knowledge is acquired. At its best, graduate education is characterized by able and enthusiastic advanced students who join faculty leaders to form a community of scholars dedicated to the common pursuit of truth. Critical analysis, independence of thought, originality of method, intensity of purpose, freedom from bias, thoroughness of inquiry, keenness of perception and vital creativity all here combine to produce in the successful student both the professional competence and the breadth of understanding essential to leadership in all areas of human endeavor.

The administrative functions of the Graduate Division include establishment of suitable entrance requirements, admission of qualified students, maintenance of high quality instruction, and provision of minimum requirements for advanced degrees. The Division accomplishes its purpose through the individual and collective actions of the Members of the Graduate Faculty with the administrative assistance of the Dean.

UNIVERSITY CALENDAR

1961 Fall Semester

September 8, Friday	Registration for Day Classes Closes.
September 11-15, Monday-Friday	Orientation Classes; required of all new students.
September 15, Friday	Final Registration of Pre-Registered students only.
September 16 & 18-20, Saturday & Monday-Wednesday	Evening Class Registration
September 18, Monday	Day Classes begin
September 25, Monday	Evening Classes begin
November 13, Monday	Mid-semester grades due
November 22, Wednesday, 5 p.m	Thanksgiving recess begins
November 27, Monday, 8 a.m.	Classes Resume
December 13, Wednesday	Founders Day
December 20, Wednesday, 10 p.m.	Christmas recess begins

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January 2, Tuesday, 8 a.m.	Classes resume
January 15-19, Monday-Friday	Final Examination Week
January 22, Monday, 9 a.m.	Final Grades Due

Spring Semester

January 22-24, Monday-Wednesday	Orientation Classes; required of all new students.
January 26, Friday	Registration for Day Classes Closes.
January 27 & 29-31, Saturday & Monday-Wednesday	Evening Registration
January 29, Monday	Day Classes Begin
February 5, Monday	Evening Classes Begin
February 22, Thursday	Washington's Birthday—Holiday
March 26, Monday	Mid-Semester Grades Due
April 18, Wednesday, 10 p.m.	Spring Recess Begins
April 22, Sunday	Easter
April 26, Thursday, 8 a.m.	Classes Resume
May 11, Friday	May Day
May 18, Friday	Honors Convocation
May 23-29, Wednesday-Tuesday	Final Examination Week; final grades due within 48 hours of the time of the final examination.
May 30, Wednesday	Memorial Day
June 3, Sunday	Baccalaureate
June 4, Monday	Commencement

Summer Session

June 6-8, Wednesday-Friday	Registration for First Six Weeks Session—Day Classes
June 8-9, Friday-Saturday	Registration for Evening Classes
June 11, Monday	Classes Begin
July 4, Wednesday	Independence Day
July 20, Friday	End of First Six Weeks Session
July 20, Friday	Registration Second Six Weeks Session—Day Classes
July 23, Monday	Classes Begin—Second Six Weeks
August 3, Friday	End of Eight Weeks Session
August 31, Friday	End of Second Six Weeks Session

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