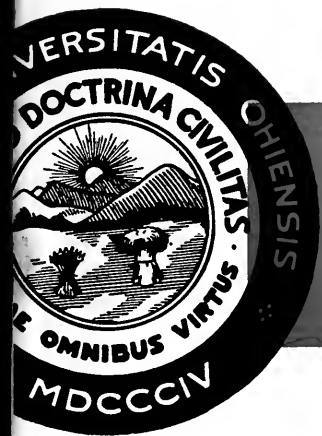


**OHIO
UNIVERSITY
BULLETIN**



58-60



GRADUATE COLLEGE

ATHENS, OHIO

ADMINISTRATIVE OFFICERS IN THE COLLEGES AND DIVISIONS

See inside back cover for directory of General Administrative Officers

- JOHN CALHOUN BAKER, M.B.A., D.C.S., LL.D. -----*President of the
University, Cutler Hall*
- THE UNIVERSITY COLLEGE -----Gauge Brue Paulsen, Ph.D., *Dean,
Cutler Hall*
- THE COLLEGE OF APPLIED SCIENCE ----Edwin James Taylor, Jr., M.S.,
Dean, Engineering Building
- THE SCHOOL OF HOME ECONOMICS ----Vivian Mae Roberts, Ph.D.,
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- THE COLLEGE OF ARTS AND SCIENCES -----Rush Elliott, Ph.D., *Dean,
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- THE SCHOOL OF MUSIC --Karl Ahrendt, Ph.D., *Director, Music Hall*
- THE SCHOOL OF PAINTING AND ALLIED ARTS -----
Frederick Darwin Leach, Ph.D., *Director, Ellis Hall*
- THE GRADUATE COLLEGE----Donald Roop Clippinger, Ph.D., LL.D., *Dean,
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*Professor of Military Science and Tactics,
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*Professor of Air Science,
Carnegie Hall*
- THE UNIVERSITY EXTENSION DIVISION ---Gilford White Crowell, Ed.D.,
Acting Director, Wilson Hall
- THE SUMMER SESSION --Gilford White Crowell, Ed.D., *Acting Director,
Wilson Hall*

OHIO UNIVERSITY BULLETIN

The Graduate College



OHIO UNIVERSITY
ATHENS, OHIO

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The programs and requirements contained in this bulletin are effective with the 1958 Summer Session. They are necessarily subject to change without notice at the discretion of the University. A supplemental announcement of changes and additions effective for the 1959-1960 school year will be issued in November 1958.

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OHIO UNIVERSITY
THE GRADUATE COLLEGE

Cutler Hall

JOHN CALHOUN BAKER, M.B.A., D.C.S., LL.D. ----- *President of the
University*

DONALD ROOP CLIPPINGER, Ph.D., LL.D.----- *Dean of the Graduate College*

LUELLA L. CLIFFTON, B.S.Ed. ----- *Secretary of the Graduate College*

MARGIE R. STRAKA, B.S.Ed. ----- *Secretary to the Dean of the
Graduate College*

CLARK EMERSON WILLIAMS, A.B. ----- *Director of Admissions and
University Examiner*

Cutler Hall

ROBERT ERNST MAHN, A.M. ----- *Registrar*
Ewing Hall

THE GRADUATE COUNCIL

DONALD R. CLIPPINGER, Ph.D., LL.D., Dean, Graduate College, Professor of Chemistry, chairman; PAUL R. MURPHY, Ph.D., Professor of Classical Languages, secretary; JOHN CADY, Ph.D., Professor of History; WILLIAM H. COOPER, Ph.D., Assistant Professor of Education; WILLIAM G. GAMBILL, JR., Ph.D., Associate Professor of Botany; L. L. KRANTZ, Ph.D., Associate Professor of Education; A. C. LAFOLLETTE, Ph.D., Professor of Dramatic Art and Speech; DAVID LEVINSON, Ph.D., Associate Professor of Economics; MAXWELL S. PULLEN, Ph.D., Associate Professor of Psychology; CHARLES RANDALL, JR., Ph.D., Associate Professor of Physics; GILBERT STEPHENSON, Mus.M., Ed.D., Associate Professor of Music Education.

PICTURES IN THE BULLETIN

(In order of appearance)

Edwin Watts Chubb Library

Electronic Computer Laboratory

Students from Abroad Visit with President Baker

Journalism Seminar

Research in Chemistry

Scene from a Theatre Production

Work in the Speech Clinic

Voigt Hall—A Residence Hall for Girls

CALENDARS FOR 1958-1959 AND 1959-1960

1958-1959

THE 1958 SUMMER SESSION

First term June 16 to July 18; second term July 21 to August 22.
For complete announcements see the Summer Session Bulletin.

FIRST SEMESTER 1958-1959

1958

| | | |
|----------|--------|--|
| Sept. 17 | Wed. | Registration for all students at time specified on registration time card. |
| Sept. 18 | Thurs. | Classes begin. |
| Sept. 29 | Mon. | Last day for registering for the semester. Last day for graduate student to apply for admission to candidacy. |
| Oct. 4 | Sat. | Last day for adding course by change order. Last day to withdraw from a course. |
| Oct. 6 | Mon. | Last day for filing application for graduation on January 31. |
| Oct. 11 | Sat. | Last day for partial refund of fees to students who withdraw. |
| Oct. 25 | Sat. | Last day for removing incomplete grades incurred during last session in residence. |
| Nov. 26 | Wed. | Thanksgiving recess begins at 12:00 noon. |
| Dec. 1 | Mon. | Classes resume at 12:00 noon. |
| Dec. 5 | Fri. | Advising for second semester; classes dismissed. |
| Dec. 12 | Fri. | Last day for all master's degree candidates to take comprehensive examination on major course work. Last day for master's degree candidates to present thesis in form for final typing to Thesis Director for approval. |
| Dec. 16 | Tues. | Christmas recess begins after last class. |
| 1959 | | |
| Jan. 5 | Mon. | Classes resume at 12:00 noon. |
| Jan. 21 | Wed. | Last day of classes. |
| Jan. 22 | Thur. | Reading and review day. Last day for master's degree candidates to take oral examination on thesis. |
| Jan. 23 | Fri. | Examinations begin. |
| Jan. 26 | Mon. | Theses due in library and abstracts due in Graduate College office. |
| Jan. 28 | Wed. | Candidates' grades due in Registrar's office, 4:00 p.m. |
| Jan. 29 | Thur. | Examinations end. |
| Jan. 31 | Sat. | Semester closes, commencement. |

SECOND SEMESTER 1958-1959

| | | |
|---------|-------|---|
| Feb. 2 | Mon. | Semester opens; advising. |
| Feb. 3 | Tues. | Registration. |
| Feb. 4 | Wed. | Classes begin. |
| Feb. 16 | Mon. | Last day for registering for the semester. Last day for graduate student to apply for admission to candidacy. |
| Feb. 21 | Sat. | Last day for adding course by change order. Last day to withdraw from a course. |
| Feb. 23 | Mon. | Last day for filing application for graduation on June 7. |
| Feb. 28 | Sat. | Last day for partial refund of fees to students who withdraw. |
| Mar. 14 | Sat. | Last day for removing incomplete grades incurred during last session in residence. |
| Mar. 25 | Wed. | Spring recess begins at 12:00 noon. |
| Apr. 1 | Wed. | Classes resume at 12:00 noon. |
| Apr. 28 | Tues. | Last day for master's degree candidates to present thesis in form for final typing to Thesis Director for approval. |
| May 7 | Thur. | Last day for all master's degree candidates to take comprehensive examination on major course work. |
| May 26 | Tues. | Last day for master's degree candidates to take oral examination on thesis. |
| May 27 | Wed. | Reading and review day; advising for September. |
| May 28 | Thur. | Examinations begin. |
| May 30 | Sat. | Memorial Day holiday. |
| June 1 | Mon. | Theses due in library and abstracts due in Graduate College office. |
| June 3 | Wed. | Candidates' grades due in Registrar's office, 4:00 p.m. |
| June 5 | Fri. | Examinations end. |
| June 7 | Sun. | Commencement. |

1959-1960
THE 1959 SUMMER SESSION

First term June 15 to July 17; second term July 20 to August 21.
For complete announcements see the Summer Session Bulletin.

FIRST SEMESTER 1959-1960

1959

| | | |
|----------|--------|---|
| Sept. 16 | Wed. | Registration for all students at time specified on registration time card. |
| Sept. 17 | Thurs. | Classes begin. |
| Sept. 28 | Mon. | Last day for registering for the semester. Last day for graduate student to apply for admission to candidacy. |
| Oct. 3 | Sat. | Last day for adding course by change order. Last day to withdraw from a course. |
| Oct. 5 | Mon. | Last day for filing application for graduation on January 30. |
| Oct. 10 | Sat. | Last day for partial refund of fees to students who withdraw. |
| Oct. 24 | Sat. | Last day for removing incomplete grades incurred during last session in residence. |
| Nov. 25 | Wed. | Thanksgiving recess begins at 12:00 noon. |
| Nov. 30 | Mon. | Classes resume at 12:00 noon. |
| Dec. 4 | Fri. | Advising for second semester; classes dismissed. |
| Dec. 11 | Fri. | Last day for all master's degree candidates to take comprehensive examination on major course work. |
| Dec. 14 | Mon. | Last day for master's degree candidates to present thesis in form for final typing to Thesis Director for approval. |
| Dec. 16 | Wed. | Christmas recess begins after last class. |
| 1960 | | |
| Jan. 4 | Mon. | Classes resume at 12:00 noon. |
| Jan. 20 | Wed. | Last day of classes. |
| Jan. 21 | Thur. | Reading and review day. Last day for master's degree candidates to take oral examination on thesis. |
| Jan. 22 | Fri. | Examinations begin. |
| Jan. 25 | Mon. | Theses due in library and abstracts due in Graduate College office. |
| Jan. 27 | Wed. | Candidates' grades due in Registrar's office, 4:00 p.m. |
| Jan. 28 | Thur. | Examinations end. |
| Jan. 30 | Sat. | Semester closes, commencement. |

SECOND SEMESTER 1959-1960

| | | |
|---------|-------|---|
| Feb. 1 | Mon. | Semester opens; advising. |
| Feb. 2 | Tues. | Registration. |
| Feb. 3 | Wed. | Classes begin. |
| Feb. 15 | Mon. | Last day for registering for the semester. Last day for graduate student to apply for admission to candidacy. |
| Feb. 20 | Sat. | Last day for adding course by change order. Last day to withdraw from a course. |
| Feb. 22 | Mon. | Last day for filing application for graduation on June 5. |
| Feb. 27 | Sat. | Last day for partial refund of fees to students who withdraw. |
| Mar. 12 | Sat. | Last day for removing incomplete grades incurred during last session in residence. |
| Apr. 13 | Wed. | Spring recess begins at 12:00 noon. |
| Apr. 20 | Wed. | Classes resume at 12:00 noon. |
| Apr. 27 | Wed. | Last day for master's degree candidates to present thesis in form for final typing to Thesis Director for approval. |
| May 5 | Thur. | Last day for all master's degree candidates to take comprehensive examination on major course work. |
| May 24 | Tues. | Last day for master's degree candidates to take oral examination on thesis. |
| May 25 | Wed. | Reading and review day; advising for September. |
| May 26 | Thur. | Examinations begin. |
| May 30 | Mon. | Memorial Day holiday. |
| May 31 | Tues. | Theses due in library and abstracts due in Graduate College office. |
| June 1 | Wed. | Candidates' grades due in Registrar's office, 4:00 p.m. |
| June 3 | Fri. | Examinations end. |
| June 5 | Sun. | Commencement. |

THE UNIVERSITY

Ohio University is state-supported. Its more than 7000 men and women students have available to them in a compact campus setting the finest in instructional, residential, cultural, and recreational facilities.

Home of the University in scenic southeastern Ohio is Athens, a city of 10,000. Athens is conveniently accessible by automobile on U.S. Routes 33 and 50 and State Route 56. It is on the main New York-St. Louis route of the Baltimore and Ohio Railroad. North and south bus service is provided by the Lake Shore System and Zane Transit Lines; east and west service, by the Capital Greyhound Lines.

Ohio University has a rich heritage. Considered its co-founders are Dr. Manasseh Culter of Ipswich, Massachusetts, and General Rufus Putnam of Rutland, Massachusetts. It was Cutler who in 1787 signed the Ohio Company's contract with Congress for the purchase of land in the Northwest Territory. The contract set aside two townships of land in the center of the purchase tract as the gift of the United States Government for the founding of a University. It was adding reality to Cutler's words which had been incorporated in the Ordinance of 1787 for the government of the Northwest Territory: "Religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools, and the means of education shall forever be encouraged." It was Putnam who in 1799, after delay caused by the Indian Wars, laid out the town of Athens and the College Green. On March 1, 1803, Ohio, the first of five states to be formed from the Northwest Territory, entered the Union, and on February 18, 1804 its Legislature provided for the establishment of "an University—in the town of Athens—by the name and style of the Ohio University." Thus Ohio University became the first institution of higher learning in the Northwest Territory and the vast region beyond. It has grown with the Nation and the State into a diversified and effective institution of higher education.

ACCREDITATION

Ohio University is accredited by the North Central Association of Colleges and Secondary Schools, and by the recognized professional accrediting associations identified with its major academic divisions. It holds membership in the leading state and national educational and professional associations in its major areas of interest.

FACILITIES AND SERVICES

Graduate students have full use of all University facilities and may avail themselves of all its services.

UNIVERSITY LIBRARY

The Edwin Watts Chubb Library houses the main collection of more than 275,000 volumes, including periodical sets, documents, and pamphlets. The collection is shelved chiefly in the stacks to which all students have direct access. A reference collection of several thousand volumes is in the Reading Room and current issues of more than 1,200 periodicals

and newspapers are in an adjoining Periodical Room. The Library is equipped with both microfilm and microcard readers. Collections of specialized material are administered by the College of Commerce, School of Music, Department of Chemistry, Department of Physics, and the University Health Center.

UNIVERSITY HEALTH CENTER

The Center includes a complete clinic with X-ray and minor surgery, a forty-bed infirmary with an isolation wing, and a physiotherapy department. The staff includes four full-time doctors and nine registered nurses.

COUNSELING SERVICE

Complete vocational counseling is available to interested students. Educational and vocational plans are developed on the basis of a survey of the abilities, interests, aptitudes and achievements and also on the basis of the requirements for the occupations and their training programs. A fee of \$5 is charged to cover the costs of tests and scoring. Application for this service may be made by contacting the staff of the Testing and Counseling Service in Carnegie Hall.

BUREAU OF APPOINTMENTS

Through the Bureau of Appointments, located in Cutler Hall, students, former students, and graduates of the University may obtain assistance in securing positions in teaching, business, and industry. There is no registration charge made for this service while an applicant is enrolled as a student in the University or during his first year out of school. After the one year period, a charge of \$2 a year is made for each year in which assistance is requested.

The Bureau maintains and promotes all possible connections with prospective employers for the benefit of persons seeking initial placement and for those looking toward advancement to better positions.

LIVING ARRANGEMENTS

HOUSING: The University provides three cottages for graduate students. Accommodations are available for twenty women students in Chubb House and Kahler Cottage, and for thirteen men in Matthews Cottage. Those applying for these facilities must agree to a year's residence and take their meals in the Ohio University Center Cafeteria. The rental rate is \$144.00 for each student for a semester; the board charge is \$216.00 for a semester. Application should be made to the Director of Housing, Ohio University, Athens, Ohio.

SINGLE STUDENTS: Rooms in private residences are listed with the Director of Housing and have been inspected and approved by the University. Graduate students are not restricted to the homes on the approved list, but may reside in apartments or residences not approved for

undergraduate students. A student renting a room in a private home is expected to remain in the home for one semester unless satisfactory arrangements are made with the householder.

FAMILIES: Married students and their families may find accommodations in University apartments or in accommodations afforded by the community.

The University has 112 apartment units located on East State Street, approximately two miles from The Green. Each of these apartments consists of a living room, bedroom, kitchen, and bathroom with an abundance of closet space, and is equipped with a gas cooking range and a gas heating unit. Tenants must arrange to supply the additional needed articles. The rent is \$39.00 a month, payable in advance. The rental charge includes all utilities.

In addition, there are 17 furnished (except for refrigerator) two-room prefabricated units which accommodate a like number of families. The rent for each unit is \$30.00 a month, payable in advance. The rental charge includes gas and water. Each family unit is compact, efficient, and quite livable.

Married veterans are given preference in the assignment of these University facilities.

The University Trailer Park, which will accommodate 36 privately-owned trailers, is located on East State Street, adjacent to the University Airport. Space rental for a trailer is \$10.00 a month, which includes water and sewerage service. Excellent toilet, bathing, and laundry facilities are provided for all trailer occupants. The rental charge does not cover electricity.

TRANSPORTATION: Convenient bus service is maintained by the University, on an hourly schedule when classes are in session, at no cost to the occupants of the East State Street Area.

APPLICATION FOR HOUSING: At the time application for admission to the Graduate College is made the student should communicate with the Director of Housing, Ohio University, Athens, Ohio, indicating his requirements for housing.

BOARD: Students living in private homes may arrange to eat in a University dining hall, but must continue with such arrangements throughout the semester.

The cost of board in University halls is \$216.00 a semester for 21 meals a week. Meals are served throughout the academic year except during the Thanksgiving, Christmas, and spring recesses. Board rates are subject to revision, in accordance with prevailing economic conditions.

CULTURAL-RECREATIONAL ACTIVITIES AND FACILITIES

SOCIAL POLICY

The students, faculty, and administrative officers of Ohio University and the community of Athens are united in their interest in maintaining a moral tone and a social pattern that is in keeping with good taste and acceptable social practice anywhere among educated people.

THE UNIVERSITY CENTER

The University Center provides facilities for the cultural, social, and recreational benefit of students. The building contains three beautiful lounges, a large ballroom, dining rooms, cafeteria, snack bar, library and record listening room, television, conference rooms, and recreational areas for bowling, billiards, table tennis, and cards.

CULTURAL PROJECTS

In addition to bringing many distinguished persons to the campus for limited engagements, the University each year invites one or more guest artists to spend periods of time during which they lecture or appear in recitals and counsel informally with interested students.

The Athens Community Concert Association and the Athens Chamber Music Society each sponsor a concert series, bringing to the campus internationally-famous instrumentalists and vocalists, symphony orchestras, opera and ballet companies, and chamber music groups. Special arrangements are made for the admission of students.

The College of Fine Arts plans many events of a cultural nature each year. In addition to the numerous concerts and plays which are presented by the students and faculties of the School of Dramatic Art and Speech and the School of Music, the two schools cooperate in campus-wide productions of outstanding musicals.

Since 1943, the School of Painting and Allied Arts has sponsored the Ohio Valley Oil and Water Color Show, a competition open to artists of Ohio, Illinois, Indiana, Kentucky, West Virginia and Pennsylvania. The University is building a permanent collection of paintings, many of which are purchased from this show. An art gallery is maintained in the Edwin Watts Chubb Library in which a program of exhibitions is conducted throughout the year. Other exhibitions are scheduled from time to time in other parts of the library and in the University Center.

The Ohio Valley Summer Theatre, sponsored by the School of Dramatic Art and Speech, produces annually a series of six outstanding plays.

RECREATION

Among other recreational facilities of interest to graduate students is the University's Natatorium, the indoor ice-skating rink, its nine-hole golf course which is adjacent to the campus, and its tennis and handball courts.

Under the sponsorship of the Men's Independent Association, feature motion picture productions are shown three nights each week in Alumni Memorial Auditorium.

Not many miles distant from Athens, and suitable as weekend diversions, are the attractions of four of the state's most scenic areas—Dow Lake, a new lake just east of Athens, within a 2000 acre state park area, which is used by the University for educational and research projects; Lake Hope, in the heart of the Zaleski State Forest; the caves and gorges of the Hocking Park Area; and Burr Oak Lake, near Glouster.

THE GRADUATE PROGRAM

The graduate program at Ohio University provides advanced professional training in the area of a student's field of specialization and affords opportunities for the conduct of research and special investigations in these same areas. The program of graduate study should become an initiation into methods of intensive study and research in some selected area of knowledge. It is the objective of the Graduate College to provide its students with a high degree of professional competence.

Contributing to the areas of study in the Graduate College are the Colleges of Applied Science, Arts and Sciences, Commerce, Education, and Fine Arts, and the Division of Physical Education and Athletics. Degrees granted are Master of Arts, Master of Education, Master of Science, Master of Fine Arts, Master of Business Administration, and Doctor of Philosophy.

The degree of Doctor of Philosophy is granted in certain selected areas of study. At present these are Chemistry, Public Address, and Speech and Hearing Therapy.

YEAR-ROUND STUDY OPPORTUNITIES

The sessions of the University consist of two eighteen-week semesters and a summer session of two five-week terms. Students are admitted at the beginning of each of these sessions or terms, and degrees are awarded at their close. Many students find it advantageous to register for all sessions which provides the opportunity for unbroken year-round study and research. The graduate assistant has the added opportunity of study with waiver of the general registration fee during the summer sessions immediately preceding and following the period of his appointment.

The summer program affords teachers and school administrators an opportunity to engage in advanced study. Course offerings in the Summer Session represent a cross section of the total program of the University in all of its divisions.

TRAVEL-STUDY PROGRAM IN FRANCE OR SPAIN

Students and teachers of French or Spanish who are interested in combining a program of graduate study with travel in France or Spain during the summer are invited to communicate with the Director of Foreign Study, Ohio University, Athens, Ohio, for further details.

In brief, the program consists of five weeks in and about Paris or Madrid with the time divided between classwork and educational and recreational activities. The dates of the program coincide fairly well with those of the regular summer session.

Up to four hours of graduate credit may be earned in French or Spanish. Those who wish to register as auditors may do so, but will pay the same fee as those registered for credit.

The group will be under the guidance of one of the regular staff members, and instruction will be given by native French or Spanish teachers. There will, of course, be ample opportunity for the use of the broken language.

FEEES

REGISTRATION FEES

Payment of all assessed fees at the time of registration is prerequisite to official enrollment. Checks and money orders should be drawn in favor of Ohio University in the exact amount of the fees. Post-dated checks are not acceptable. Checks not paid on presentation to the bank will automatically cancel any receipts given and result in assessment of penalties. It is important that the student retain his receipt, for it must be presented at the time the activity card is issued.

Ohio University reserves the right to make, without prior notice, any fee adjustments that may become necessary.

| The Semester: | Resident of Ohio | Non- Resident |
|--|---------------------|------------------|
| Comprehensive fee for load of 12 to 16 hours, inclusive Includes the general registration fee of \$75.00; the student activity fee; student service fees such as health, library, and testing; and course and laboratory fees. Excludes fees for private instruction, as in music, which are listed in the course descriptions. | \$110.00 | \$235.00 |
| Fee for each hour for load of 7 to 11 hours, inclusive | 10.00 | 20.00 |
| Fee for each hour for load of 1 to 6 hours, inclusive The fee for 1 to 6 hours does not carry with it the privilege of a student activity card or the use of the Health Service. | 8.00 | 20.00 |

Auditors pay fees in full as above.

The Summer Session:

Fees for each term are proportionate amounts of the semester fees. See Summer Session bulletin for details.

Extension Class:

| | | |
|---|-------|-------|
| Registration fee, each semester hour ----- | 10.00 | 20.00 |
| Fee is increased if class is organized with an enrollment below the required quota. | | |

REFUND OF FEES. Voluntary and official withdrawal from the University entitles the student to a refund of 80% of the comprehensive fee if he withdraws within the first and second weeks of a semester, and 50% if he withdraws within the third and fourth weeks. A week is interpreted to mean a calendar week and ends at noon on Saturday.

If a student withdraws from the University before he pays his registration fees or before he completes the payment of his registration fees, he is considered indebted to the University for the amount determined according to the refund regulations.

DOMICILE (LEGAL RESIDENCE): The general registration fee for non-residents of the State of Ohio is higher than for the residents of the State.

1. No student shall be considered eligible to register in the University as a resident of the State of Ohio unless he has had bona fide domicile in the state twelve consecutive months before he registers at the University. There is a strong presumption that one who comes into the state to attend college has a temporary residence, not a domicile.

2. No student whose domicile was outside the State of Ohio in the year preceding his original enrollment in the University shall be considered a resident unless it can be clearly established by him that his former domicile has been abandoned and a new domicile established in the State of Ohio and maintained for at least twelve consecutive months. No application for residence standing of one whose legal residence is not determined by his parents or legal guardian can be considered until the applicant is 22 years of age.

3. No student whose domicile was outside the State of Ohio at any time after his original enrollment in the University shall be considered a resident unless he has established his domicile as stated in paragraph 2 above.

4. **WIVES:** A wife shall be classed as a resident student for registration purposes if her husband has had a bona fide residence in the State of Ohio for a period of at least twelve months preceding her registration and is a resident of the state at the time of her registration.

5. **LOSING OHIO CLASSIFICATION:** A student, who at time of entrance is classified as an Ohio resident, loses his Ohio classification if his legal residence is changed to another state, but not until one year has elapsed.

MISCELLANEOUS FEES

| | |
|--|------------|
| Change of course | \$ 2.00 |
| Duplicate official forms, fee receipts, grade report, etc. | 1.00 |
| Examination for advanced standing, each semester hour | 5.00 |
| Graduation— | |
| Application for degree | 10.00 |
| Re-application | 2.00 |
| Penalty for late application | 5.00 |
| Diploma mailing fee for those excused from commencement | 2.00 |
| Late registration or late payment of fees—\$3.00 Minimum, \$10.00 Maximum | 3.00-10.00 |
| Microfilming fee, required of Ph.D. candidates | 25.00 |
| Thesis Editing and Abstract Printing | 5.00 |
| Thesis Binding, Each copy | 2.50 |
| Transcript of record, after first transcript request | 1.00 |
| Group requests of five to ten copies, \$5.00; five to twenty copies, \$10.00 | |

FINANCIAL AIDS

See also GRADUATE APPOINTMENTS, page 21, and SCHOLARSHIPS, page 22.

AMERICAN BANKERS ASSOCIATION SCHOLARSHIP

The American Bankers Association Foundation for Education in Economics allocates annually a \$250 loan scholarship to the College of Commerce. This scholarship is awardable to a deserving student of senior or graduate rank whose major course is in banking, economics, or related subjects.

FULBRIGHT OR MARSHALL SCHOLARSHIPS

Graduate students who are interested in applying for Fulbright or Marshall Scholarships should consult Dr. B. A. Renkenberger, Chairman of the Foreign Study Committee. Application blanks are available at the opening of the academic year each September.

THE HENRY STRONG EDUCATIONAL FOUNDATION LOAN FUND

Ohio University is one of the select list of colleges and universities which is granted an allotment from The Henry Strong Educational Foundation. Loans up to \$600 for an academic year may be obtained by graduate students under twenty-five years of age who are superior risks on the basis of scholarship, character, and future financial ability. Foundation loans bear an interest rate of 3% per annum.

A person desiring further information or a loan application form should direct his request to the Director of Student Financial Aids, Ohio University, Athens, Ohio.

AREAS OF GRADUATE STUDY

| | |
|-----------------------------|--------------------|
| Art | Human Relations |
| Bacteriology | Industrial Arts |
| Botany | Journalism |
| Chemistry | Management |
| Classical Languages | Mathematics |
| (minor work only) | Music |
| Commerce and Business | Philosophy |
| Dramatic Art | Photography |
| Economics | Physical Education |
| Education and School | and Athletics |
| Administration | Physics |
| Engineering, Electrical and | Public Address |
| Mechanical | Psychology |
| English | Radio-Television |
| Geography | Romance Languages |
| (minor work only) | Sociology |
| Geology | Speech and |
| German | Hearing Therapy |
| Government | Zoology |
| History | |
| Home Economics | |

DESCRIPTION OF AREAS OF GRADUATE STUDY

ARTS AND SCIENCES. Qualified students may pursue graduate study leading to the Master of Arts degree in one of the following areas of instruction:

| | |
|------------|-------------------|
| Economics | Human Relations |
| English | Philosophy |
| German | Psychology |
| Government | Romance Languages |
| History | Sociology |

The Master of Science degree is granted to candidates whose undergraduate preparation provided the Bachelor of Science degree or its equivalent and whose graduate major is in one of the following areas of instruction:

| | |
|--------------|-------------|
| Bacteriology | Mathematics |
| Botany | Physics |
| Chemistry | Psychology |
| Geology | Zoology |

The Doctor of Philosophy degree is granted in Chemistry.

Modern, and in many instances new, facilities are available to the student in the above areas for the conduct of advanced study and research. The recent acquisition by the University of an electronic computer is evidence of the type of facility afforded for both instruction and research.

The members of the graduate faculty assigned to direct the work of the graduate students have demonstrated their qualifications for this service by their own writing and research.

COMMERCE. The Master of Business Administration degree is granted in this field.

Students who have completed an undergraduate degree in business or commerce or who have accumulated 30 semester hours of undergraduate credit with some work in the areas of accounting, economics, finance, marketing, advertising, statistics, business law, and management may be admitted to this degree program. Areas in which major fields of study may be developed are:

| | |
|-----------------------|------------|
| Accounting | Finance |
| Economics | Management |
| Marketing-Advertising | |

Graduate study in economics leading to the Master of Arts degree provides, through advanced work in economic theory, the essential background for work in business and government in the fields of economic and market analysis.

EDUCATION. Graduate students directing their efforts toward advanced professional training for administrative and teaching positions in the elementary and secondary schools may receive the Master of Edu-

education degree. This degree is granted to those completing graduate programs in:

Administration

School Supervision

Elementary or Secondary School Teaching

Guidance Counseling

Descriptions of these programs are given on pp. 49-51.

The Center for Educational Service is designed to make available the resources of the College of Education and of the University to educational workers—teachers, administrators and supervisors. These resources are also available to boards of education and to the public in communities served by Ohio University.

The resources of the Center for Educational Service and the projects which it conducts offer opportunities for graduate students in the use of these practical materials and in participation in field studies of realistic school problems.

FINE ARTS. The degree Master of Fine Arts may be granted to graduate students who major in one of the following areas of study. The degree Doctor of Philosophy is also granted in Public Address and Speech and Hearing Therapy.

Dramatic Art and Speech. The program of dramatic art and speech is centered in the new Speech and Theatre Building, equipped with modern facilities for the University Theatre, the University Speech and Hearing Clinic, the radio station—Woub, Woui—AM and FM, television laboratory, and special rooms for the forensics program. Graduate students may participate in production, directing, technical work, costuming, make-up, house-management or promotion of the presentations of the University Theatre.

Graduate students in speech therapy acquire firsthand experience in working with all types of defective speech in both the university clinic for students and the children's clinic. Mature students may be given some supervisory responsibility.

An extensive program of first-year debating and varsity intercollegiate debating for both men and women, together with intercollegiate contests in oratory and interpretation, provides ample opportunities for graduate students in public address to gain practical experience in the direction of a forensics program.

Music. The School of Music offers the degree of Master of Fine Arts, and the degree of Master of Education, or Master of Science. For the degree of Master of Fine Arts the major field may be in composition, music literature, music education, or applied music (voice, piano, violin, cello, brass, woodwind, and percussion instruments). For the Master of Science degree, a joint program of training in music therapy and psychotherapy is offered. The Master of Education degree may be granted to those majoring in music education.

Painting and Allied Arts; Photography. Programs of study are provided to meet the needs and preparation desired by the graduate

student. Fields of interest and training can be selected from art history, commercial design, decorative design, industrial design, painting, illustration, photography, sculpture and ceramics.

Radio. Ohio University operates an AM and FM station. Most of the responsibility for the operation of the station and the preparation and production of its programs is in the hands of advanced students who work under close faculty supervision.

INDUSTRIAL ARTS. The basic objective of this department is to serve teachers who desire to upgrade their work by more intensive study in the field of industrial arts. The graduate courses have been developed to give the latitude necessary to meet the variations in undergraduate preparation and in the student's professional objectives. Students in this area become candidates for the Master of Education degree.

PHYSICAL EDUCATION. A graduate student may work toward either the Master of Science or Master of Education in this area depending on his background of preparation and program of graduate study.

Students who want graduate study in physical education and the related subjects of health education and recreation may combine these interests into a major of 12 to 16 course hours and a thesis. One or two other areas will be associated with this major to complete 32 course hours including the thesis.

Associated areas or minors may be selected from any graduate course offerings in the University, with the understanding that a minimum of 6 or more hours of prerequisite study are usually required before graduate study is permitted.

The following minors are commonly selected: educational administration, history, human relations, social science, biological science, psychology, or industrial arts. The student, however, is in no way limited to these areas.

ENGINEERING. A program of graduate study leading to the master of science degree in electrical engineering with options in electronics, servomechanisms, automatic control, or power is available. A program in mechanical engineering is also provided in new engineering laboratories.

HOME ECONOMICS. The School of Home Economics offers a broad and extensive program in home economics and related fields leading to the master of science or master of education degrees. Major work at the graduate level is offered in four fields—*foods and nutrition, textiles and clothing, child development and family life* including nursery school training, and *home economics education*.

JOURNALISM. The master of science degree is granted graduate students in this area. The Ohio University School of Journalism is one of a select group of schools or departments of journalism that have been accredited by the American Council on Education for Journalism. Journalism has five areas or sequences available for graduate study

leading to the Master of Science degree: *advertising-management, magazine journalism, news writing and editing, public relations, and radio-television news.*

The School of Journalism has its own complete laboratory facilities and also has access to the offices and equipment of the independently-owned daily, *The Athens Messenger*. United Press wire service, an AM and FM radio station, a television studio, type laboratory, dark rooms, an offset press, and engraving plant are a part of the university equipment available.

ADMISSION REQUIREMENTS AND STUDY REGULATIONS

ADMISSION. Students holding a bachelor's degree from an accredited college or university who have attained an undergraduate scholastic point-hour ratio of 2.5 or better on hours attempted, and preferably a 3.0 in the area of the proposed major, may be admitted and granted *regular status* in the Graduate College. (Point-hour ratio is computed on a 4-point system: A=4, B=3, C=2, D=1.) Further supporting evidence of the student's ability in the form of the Graduate Record Examination or other college ability tests and letters of recommendation may be requested.

Students holding a bachelor's degree from unaccredited institutions or persons whose undergraduate preparation is deficient will be required to supplement their undergraduate record with a satisfactory score on an acceptable standard college ability test.*

Students with a master's degree will be admitted to graduate study for the doctorate with the amount of graduate credit accepted, by transfer, subject to review and recommendation by the graduate committee of the department concerned.

All correspondence pertaining to the admission of a student to the Graduate College should be addressed to the Director of Admissions and University Examiner, Ohio University, Athens, Ohio.

Students are accepted for admission in advance of the beginning of each of the semesters of the regular year and of the summer session.

Application for admission consists of the presentation of an application blank filled in by the applicant, an official transcript of college credit, two small photographs of the applicant, a vaccination blank certified by a physician, and a medical history blank filled in by the applicant and completed by a physician. The vaccination and medical history blanks are not required if a student plans to attend the summer session *only* as a special student.

*Information regarding these examinations may be had at the office of the Director of Admissions or the office of the Supervisor of Testing Service. While it is not required, except as indicated above, applicants for admission may submit their scores on the Graduate Record Examination as valuable evidence of fitness for admission. The Graduate Record Examination is a test of general intellectual ability. Those who have taken this test are urged to have the Graduate Record Office report their scores to the Director of Admissions. Examinations will be given in January, April, July, and November. Further information about the Graduate Record Examination may be obtained by writing to the Educational Testing Service, P.O. Box 592, Princeton, New Jersey. Applicants in the West Coast region should write to Educational Testing Service, P.O. Box 27896, Los Angeles 27, California.

A graduate student who is attending another university may be admitted for the summer session as a special transient student by presenting an official statement of good standing from the university in which he is enrolled. Admission for the summer session only as a special student does not constitute admission to the regular academic year.

Admission to the Graduate College does not imply admission to candidacy for a degree. The student is referred to a subsequent paragraph on the requirements for admission to candidacy.

For information concerning application for living quarters, see "Living Arrangements" on page 9.

CLASSIFICATIONS OF STUDENTS ADMITTED TO GRADUATE STUDY

1. Those students approved by the major department and the Dean of the Graduate College for unqualified admission to graduate study are granted *regular status*.
2. Students admitted under the provisions of *special status* may include those who wish to pursue course work with no intention of qualifying for a degree, those students who are transient registrants, those who fail to qualify for admission to candidacy, and those with some deficiency in entrance requirements. Students in this last category may achieve regular status after the satisfactory completion of a prescribed program of study to remove deficiencies.

SENIORS AND GRADUATE STUDY. A student who is within 9 hours of completing all requirements for the bachelor's degree at Ohio University may take courses applying toward the master's degree, provided he otherwise meets the requirements of admission and secures the written recommendation from the dean of his college, the chairman of his major department, and the approval of the Dean of the Graduate College. Request for the above privilege must be made in advance of registration through the Graduate College office.

REGISTRATION AND ASSIGNMENT TO ADVISERS. A student who qualifies for admission to the Graduate College receives a permit to register. He then confers with the Dean of the Graduate College concerning the general nature of his interests in graduate study and is directed to the departmental chairman or chairman of the graduate committee who has supervision over the subject matter in the area of major interest. The chairman, together with the Dean of the Graduate College, will assign a faculty adviser in the major and minor fields to counsel with the graduate student and prepare the outline of graduate study. The outline is returned to the Graduate College office where it is filed and becomes a part of the record of the graduate student.

STANDARDS OF WORK. All work submitted for graduate credit shall be of high quality. *The minimum standard acceptable is a point-hour ratio of 3.0 in all courses attempted in fields chosen to meet degree requirements, with no grade below C, and not more than 20 per cent of the work accepted with a grade of C.* A minimum average grade of B is required in all courses taken at Ohio University for application on the degree requirements. The designation of "pending" on a problem, re-

search, or seminar course must, by arrangement with the instructor, be removed within one year after the official closing of the session in which the course was taken. An incomplete in all other courses must be removed within six weeks after the opening of the next session in which the student is in residence. No grade for thesis is indicated until the completion of the thesis.

COURSES FOR GRADUATE STUDY. Credit toward a graduate degree is given for the completion of courses designed for graduate students (numbered 400-499) and courses designed for advanced undergraduates and graduates (numbered 300-399), provided the courses are included in the student's approved program of study.

APPLICATION FOR GRADUATION; COMMENCEMENT EXERCISES. The student must apply for graduation through the office of the Registrar at the time indicated in the University Calendar. If the requirements for the degree are not fulfilled within the designated semester the student must reapply for graduation.

The university graduation exercises are conducted to honor those who have achieved their degrees. The graduate student is required to attend the commencement exercises. Academic costumes with the appropriate hoods are worn by the candidates as a part of the ceremony. The candidate will make his own arrangements for procurement of the appropriate academic costume through the campus agency provided for this service.

GRADUATE APPOINTMENTS

GRADUATE ASSISTANTSHIPS AND FELLOWSHIPS. A number of graduate assistantships and fellowships are available in the Graduate College of Ohio University. Persons receiving these appointments are selected on a basis of merit from students who have received the baccalaureate degree from approved institutions and who wish to pursue work leading to the graduate degree.

Graduate assistantships provide a stipend of \$1600 to \$1800 for the academic year of two semesters and waiver of all fees, resident and non-resident, with the exception of a \$25 incidental fee. The graduate assistant is required to give approximately 18 hours of service weekly to the University, and is permitted to carry 9 to 12 hours of graduate work, the hours in excess of 9 being subject to the approval of the Dean of the Graduate College and the chairman of the department in which the student is serving as an assistant.

The general registration fee will also be waived during the summer sessions directly preceding and following the period of a graduate assistant's appointment.

A graduate assistant continuing study for a second year is eligible for a second appointment to the assistantship. The assistant who has completed two semesters of service with an exceptionally good record may, on the recommendation of his department, be reappointed for a second year at an increased stipend with waiver of the fee as noted above. Reapplication must be made annually.

Graduate assistantships are usually available to qualified students in the following fields: accounting, bacteriology, botany, business education, chemistry, dramatic art and speech, economics, education, electrical engineering, English, finance, fine arts, government, history, home economics (including nursery school), human relations, industrial arts, journalism, management, mathematics, music, philosophy, photography, physical education, physics, psychology, Romance languages, sociology, and zoology.

A number of teaching fellowships in chemistry, public address, and speech therapy leading to the doctorate are awarded to persons in advanced graduate study who have completed the master's degree or its equivalent and who have some teaching experience. The stipends, based upon both experience and teaching responsibility, range from \$1800 to \$2200 for two semesters of service with the same provisions for waiver of fees as the graduate assistantships.

Research fellowships are established on the basis of grants-in-aid to the University for the conduct of research. Appointees to these fellowships must show exceptional aptitude for research. Their obligation involves the promotion of the research program of the department through which the grant is made. Fellows have no instructional service to perform and may normally carry 9 to 12 semester hours of work toward the completion of their graduate program. In general, the stipend and waiver of fees will be the same as those of an assistantship.

APPOINTMENTS IN PERSONNEL WORK. Positions are open annually for graduate assistants who will be appointed to assist the Personnel Deans. These assistants may pursue graduate work in human relations, psychology, and related fields. Stipend and other terms are the same as those of other graduate assistants.

Graduate appointments are also available to married men, with no children, as Heads of Residence in the dormitories for men. The compensation for this service is a furnished apartment and board for the man and wife, a stipend of \$700 per year plus the waiver of fees as indicated for the graduate assistant. The Head of Residence will supervise the functions of the dormitory and coordinate the responsibilities of graduate assistants assigned to work with him. He is limited to 9 hours of course work per semester.

Applications for all graduate appointments must be filed with the Dean of the Graduate College by March 1. Application blanks may be obtained from the office of the Graduate College. Appointments are made about April 1.

SCHOLARSHIPS. University scholarships are available to college graduates who have maintained a high scholastic record. These permit full-time study and pay the registration (resident or non-resident) fee. Information may be obtained by addressing the Director of Student Financial Aids, Ohio University, Athens, Ohio.

THE MASTER'S DEGREE

RESIDENCE AND CREDIT. At least 32 semester hours of credit are required for the master's degree. A maximum of 8 semester hours

of graduate credit with A or B grades may be accepted by transfer from approved institutions which offer the master's degree, provided the transferred course work is acceptable to the student's adviser and is *not more than five years old*. Credit for courses taken by correspondence is not accepted toward the degree. *A maximum of 6 semester hours taken off-campus is accepted toward the master's degree, provided the courses are conducted by instructors who regularly teach them on the campus.* A graduate student who is employed full time may, with the approval of his major adviser and the Dean of the Graduate College, carry a maximum of 6 hours of credit in a semester or summer session.

After securing a bachelor's degree, an adequately prepared student engaged in full-time study may be able to complete the work for the master's degree in one year of two semesters, in three ten-week summer sessions, or six five-week summer terms. Many students find it necessary to take two semesters and a summer session for the course work and the thesis. The normal residence requirement is 30 weeks. A transfer student is required to have a minimum residence at Ohio University of one semester and one ten-week summer session, or two summer sessions of ten weeks and one five-week term, or the equivalent of at least 25 weeks. A student who takes courses for graduate credit in off-campus classes is required to have minimum residence at Ohio University of one semester and a ten-week summer session, or two ten-week summer sessions and one five-week term or at least 25 weeks.

PROGRAM OF STUDY AND STUDENT LOAD. A student's program of study is made up of two parts, a major and a minor, unless a program otherwise arranged is approved by the adviser and the graduate committee of the department. Since graduate work implies advanced study and some degree of specialization, a certain amount of undergraduate preparation in a subject or field of study is presupposed before graduate study may be undertaken in that subject or field. Naturally, the undergraduate preparation required to begin a graduate major is greater than that required to begin a graduate minor. In most departments a minimum of 18 semester hours of undergraduate work is required to begin a graduate major, while 6 to 12 semester hours are required for the minor. The student is referred to the requirements listed by departments. The program in the major field varies from 12 to 20 semester hours exclusive of research and thesis (under the thesis plan), with a total of 4 to 6 semester hours allowed for research and the thesis. The minor field in such cases makes up the remainder of the 32 semester hours required for the degree and is selected from one or two fields of instruction closely related to the major field. A minimum of 8 or 9 semester hours constitute the requirement for a single minor and a minimum of 6 semester hours in each of two areas of study the requirement for a joint minor. All of the work for the master's degree may be done in one department, school, or field on recommendation of the adviser and with the approval of the graduate committee of the department.

A program of graduate study without the thesis requirement is now available to graduates preparing for educational work in the public schools. Students desiring the Master of Education degree may have a

program of study arranged with or without thesis, provided the program is approved by the committee on graduate study in the major department.

The full-time load for a graduate student is considered to be 16 credit hours per semester (12 hours in the summer session of ten weeks).

Graduate assistants or research fellows normally carry a load of 9 hours, though, with the approval of the department chairman and the Dean of the Graduate College, additional work not exceeding a total of 12 hours a semester may be carried.

REQUIREMENTS FOR THE MASTER'S DEGREE. For the M.A., M.S., M.F.A., or M.B.A. degree, as partial fulfillment of the requirements for the master's degree, each candidate shall prepare a thesis* under the direction of his adviser on a subject approved by the committee on graduate study in the department of his major and the Graduate Council. A student under the thesis plan is expected to pass creditably two examinations: (a) a general *major course examination* on the subject matter of his major field, and (b) an *oral examination* on the thesis. For the M. Ed. degree optional programs are available. One involves the writing of a thesis in which the student completes the usual 32 semester-hour program as described above. The other is a 34 semester-hour program in which the thesis requirement is excluded. Details of these programs may be found on p. 47.

EXAMINATIONS. The *major course examination*, which must be taken approximately one month before the oral examination on the thesis, may be a written or a combination written and oral examination as may be determined by the committee on graduate study in the department concerned. The student makes application for the examination through his major adviser. The chairman of the committee on graduate study or the major adviser shall arrange for and supervise this examination. The arrangements for the examination shall be completed through the Graduate College office. The details of the examination, including time and place, will be sent to the examiners and the student from the Graduate College office. Within one week after the examination, the instructor in charge shall file a copy of the written examination questions and the student's examination papers in the office of the Graduate College, together with the report on the student's examination. A candidate who fails the major course examination may retake the examination at the discretion of the committee on graduate study in the department concerned.

An *oral thesis examination* shall be given not later than one week before the degree is to be conferred. The examining committee shall be composed of the director of the thesis as chairman, two or more additional members from the major department, and a representative of the Graduate Council as appointed by the Dean of the Graduate College.

*For the M.A. degree in the Department of English, provision is made for a creative writing option in which the candidate submits poetry, a short story, novel or play in lieu of thesis. Students in applied music who take the M.F.A. degree may offer a public recital and a recording in lieu of thesis. Students in Painting, Sculpture and Photography may give a show in partial fulfillment of the thesis requirement.

THESIS. The candidate prepares his thesis under the direction of his thesis director on a subject in the field of his major work. The thesis provides an opportunity for the student to formulate and express the results of his research and study. With the approval of the Graduate Council, the thesis requirement may be met by the presentation of the results of a creative activity in literature, music, fine arts, or industrial arts, together with a written essay indicating the purpose, procedure, bibliography, and problems involved in the work. The format which gives directions and style for writing the thesis and abstract is obtained in the office of the Graduate College.

A list of competent thesis typists is available in the Graduate College office. It is recommended that the manuscript be put in final typed form by one who has had experience in thesis typing.

The thesis shall be presented to the thesis director in form for final typing at least five weeks in advance of the date of the commencement at which the candidate expects to receive his degree. At this time the thesis director will certify approval of the thesis in this form and will constitute the committee and arrange a date for the oral thesis examination through the Graduate College office. The Graduate College provides for editing of the manuscript before it is put into final typed form.

The finished typed copies of the thesis must be available one week prior to the date of the oral examination in order that adequate review of the manuscript may be made by the examining committee prior to the final oral examination.

After the thesis and abstract are approved by the Graduate College and not later than five days before the degree is conferred, the candidate files two unbound copies of the thesis with the university librarian and one bound copy of the thesis with the office of the Graduate College. The two copies filed with the university librarian are bound and retained in the university library, and the copy filed with the Graduate College is presented to the school or department in which the work has been done.

If the student desires a bound copy of his thesis, arrangements for this service can be secured through the library.

ADMISSION TO CANDIDACY. Admission to the Graduate College does not constitute admission to candidacy for a degree. In order to be admitted to candidacy for the master's degree, a student must have demonstrated ability and fitness to pursue graduate work in his chosen field by completing a minimum of 12 semester hours of graduate work with a scholastic average of 3.0 or above within his program of graduate study. A further condition of admission to candidacy is the selection of a thesis subject acceptable to the thesis director and approved by the Graduate Council, or, under the nonthesis program in Education, the selection of a problem for investigation to be presented in the seminar.

The student must apply for admission to candidacy as soon as he has met these preliminary requirements, not later than two weeks (one week in the summer session) following the opening of his next session of residence. A student not eligible for candidacy, on completion of 12 semester hours, by reason of a scholastic average below 3.0 in all gradu-

ate work completed prior to application for candidacy, or because of failure to select an approved thesis topic, will have his qualifications reviewed and may be denied the opportunity to pursue further work, or may be classified as a special student. Application forms for admission to candidacy are obtained at the Graduate College office.

TIME LIMIT FOR THE MASTER'S PROGRAM. The maximum time allowed between the date when a student is admitted to the Graduate College and begins graduate study and the date when the requirements for the master's degree are completed is six years. Students who do not complete their requirements for the degree within the six-year period may be permitted to continue in graduate study only if exceptional circumstances are associated with the delay in progress. An extension of time is automatically granted to those students whose programs have been interrupted by military service.

OUTLINE OF PROCEDURE FOR THE MASTER'S DEGREE

1. Admission to the Graduate College is secured in advance of the opening of the session in which graduate work is begun.
2. During the registration period the student confers with the Dean of the Graduate College relative to a program of study. The student will be referred to the chairman of the graduate committee or chairman of the department of major interest for assignment of adviser.
3. In consultation with the advisers the student is provided with a program of course work for the current semester. At the same time, the advisers, with the student, will formulate an outline of courses which is to become the basis of work for the master's degree. This outline must be submitted on a form provided by the Graduate College office and, when approved by the advisers, is to be returned to this office within a month after the program of study is begun.
4. A thesis topic is selected during the initial semester of study. This is done in conference and consultation with the major adviser or the staff member of the department designed to serve as the thesis director.
5. Application for admission to candidacy is made on completion of the first 12 hours of graduate study toward the degree.
6. Application for graduation and payment of the graduation fee are made in the Registrar's office at the time indicated in the University Calendar. Failure to meet graduation requirements necessitates re-application.
7. Examinations are taken as required under the plan chosen as prescribed on pages 24 and 47. The graduate student, whether following the thesis or nonthesis program, makes application through his major adviser at the proper time for his examination on the major course work. The committee for the oral examination on thesis is constituted when the thesis is submitted in form for final typing, five weeks prior to the date of commencement. See regulation on page

24. Notices of all examinations are sent to the student and committee members by the Graduate College.
8. When the thesis manuscript is ready for typing in final form the manuscript is brought to the Graduate College office for editorial review.
9. Two copies of the finished thesis are filed in the library after securing the signature of the Dean of the Graduate College and after leaving one copy of the thesis and two copies of the abstract in the office of the Graduate College.
10. The fees for binding copies of the thesis and printing the abstract are paid before the final week of the term. If a recital has been given, the fees for the recording and the printing of the program in the *Abstracts of Master's Theses* are paid.

THE DOCTOR OF PHILOSOPHY DEGREE

The doctor's degree is granted on the basis of evidence that the candidate has achieved a high level of scholarship and proficiency in research rather than solely on the basis of successful completion of a prescribed amount of course work. The proficiency of the student and his ability to work independently and write creatively are established by a series of qualifying and comprehensive examinations and the quality of a dissertation submitted as an account of the student's original research.

RESIDENCE AND CREDIT. A minimum of six semesters of study and research beyond the bachelor's degree is needed to meet the requirements of the doctor's degree. At least two semesters of the doctoral program of study shall be in continuous residence at Ohio University, preferably the last semesters of study for the degree. The continuous residence requirement applies to the period of graduate study following the completion of the master's degree or the equivalent of the initial 32 semester hours of graduate study.

The amount of credit accepted by transfer from another university will be determined by the graduate committee of the department concerned and the Dean of the Graduate College.

PROGRAM OF STUDY. The graduate program for the doctor's degree will usually include, in addition to the major subject, at least two minor subjects of study, one of which may be in the field of the major with the other in a field distinct from but related to the major. The student will be assigned an adviser by the chairman of the major department who will outline the proposed program of study for the degree. The courses will be indicated on a special form supplied for this purpose and must be filed in the Graduate College office. A minor will normally involve a minimum of 12 semester hours of study.

ADVISORY COMMITTEE. During the first semester of the student's study the Dean of the Graduate College will select a staff member from each area of minor study to serve with the adviser in the major field as the student's graduate advisory committee. The duties of this committee are defined in terms of the subsequent requirements for the degree.

COMPREHENSIVE EXAMINATIONS. Toward the end of the student's fourth full semester of graduate study, or when course work is virtually completed, and upon the recommendation of the student's advisory committee, arrangements are made through the Graduate College office for the comprehensive examination. This examination consists of both oral and written coverage of the areas of study pursued by the student in his graduate program and is given for the purpose of establishing the student's comprehension of the fields of specialization.

The committee for these examinations consists of the student's advisory committee and two members of the major department appointed by the chairman of the major department. Other members of the faculty are free to participate in the oral phase of this examination. Members of the committee will be notified of their responsibility from the Graduate College office.

LANGUAGE REQUIREMENT. Prior to admission to candidacy the student must give evidence of a reading knowledge of two foreign languages, usually French and German. However, the languages required may be established in terms of the student's interests and objectives. In certain areas of study a department may substitute another research tool for one language, such as demonstrated proficiency in statistics. Approval of such a substitution will require Graduate Council action.

The language examinations are given at stated intervals under the supervision of the language departments.

ADMISSION TO CANDIDACY. Upon successful completion of the comprehensive examinations, fulfillment of the language requirement, and approval of a research proposal by the Graduate Council, a student may by recommendation of the advisory committee be admitted to candidacy. Candidacy must be obtained at the beginning of the last two semesters of residency for the degree.

DISSERTATION. A dissertation which is the scholarly account of an investigation or research in a new area of knowledge is submitted by each candidate. The dissertation in form for final typing shall be presented to the director and major adviser six weeks in advance of the commencement date on which the candidate expects to receive the degree. At this time the examining committee and the date of the oral dissertation examination will be established.

No later than one week prior to the date of the oral examination at least three typed copies of the finished manuscript must be available for review by members of the examining committee. The first copy is brought to the Graduate College office for the member of the Graduate Council who will serve on the examining committee.

At least one week before the close of the semester in which the candidate receives his degree all approved copies of the dissertation, together with two copies of an abstract of not more than 500 words, are submitted to the Dean of the Graduate College for final approval.

At this time the first and second copies of the dissertation and a copy of the abstract are filed with the university library. A binding fee of \$2.50 per copy and a microfilming fee of \$25 are paid to the treasurer of the University.

The first copy of the dissertation will be given to the University Microfilms for purposes of editing and microfilming and made available for use by inter-library exchange. It is then returned to the Edwin Watts Chubb Library at Ohio University. The abstract will be submitted to University Microfilms, Ann Arbor, Michigan, for publication in *Dissertation Abstracts*. The second copy of the dissertation will be bound by the library and submitted to the student's major department. If the student desires a bound copy of his dissertation, arrangements for this service may be secured through the library.

COURSES OF INSTRUCTION

EXPLANATION

CATALOG NUMBER. Courses numbered 300-399 are for advanced undergraduates and graduates; those numbered 400-499 are for graduates.

In general, an odd number indicates the first semester of a two-semester course; an even number, the second semester.

Two numbers at the beginning of a course indicate a two-semester or year course. A *hyphen* between the numbers indicates that the course is a continuous course; that is, the first semester course is a prerequisite for the second semester. A *comma* between the numbers indicates that although the course is a two-semester course, the first semester course is not a prerequisite for the second semester.

CREDIT. All credit is designated in semester hours. Credit for a course is indicated by the number or numbers in parentheses following the course title, and in case of a year course, is shown for each semester. In a semester course it may be expressed thus: (3), (1 to 3), or (2 or 3); in a year course, (3-3), (3, 3), (1 to 3—1 to 3), or (2 or 3—2 or 3).

In a course carrying variable credit the credit may be expressed thus, (1 to 4), usually indicating that one hour is the minimum and four hours the maximum amount of credit allowed for the course. In those instances where a student may enroll for a course with a variable credit a number of times, the maximum credit available is indicated in the course description.

COURSE PREREQUISITES. The minimum undergraduate preparation for beginning graduate study is stated at the head of each subject matter field. Specific additional requirements are indicated at the end of course descriptions following the abbreviation, "Prereq." In general only graduate level courses that are prerequisite to other courses are listed, since students admitted to an area of graduate study will have completed the basic undergraduate courses that constitute preparation for advanced study in the area.

CLASS SCHEDULE. A Schedule of Classes is available from the Registrar for each session.

FACULTY. Listing is as of November 1957.

ACCOUNTING

Professors Ray, Beckert (chairman)
Associate Professors Fenzel, Reininga
Assistant Professor Via
Instructor McLaren

In order to begin a graduate major or minor in accounting, a student should have at least 30 hours in commerce and/or economics, including Intermediate and Cost Accounting.

305-306. ADVANCED ACCOUNTING (3-3) McLaren

Problems peculiar to partnerships, receiverships, fiduciaries, installment sales, consignments, insurance, estates and trusts; compound interest applications; governmental accounting; branches, consolidations, and mergers; and foreign exchange.

324. STANDARD COSTS AND BUDGETS (3) Ray

The establishment of standard costs, preparation of budgets, and analysis of cost variances.

343. FEDERAL INCOME TAX ACCOUNTING (2) Reininga
Study of advanced tax problems of individuals, partnerships, and corporations including tax planning and administration.
355. INDUSTRIAL AUDITING AND INTERNAL CONTROL (3) Beckert
Study of types of internal audits, audit reports, fraud, and an appraisal of the standards of internal auditing as a profession. Basic and internal controls are studied in their relation to the auditor's program.
356. AUDITING PRINCIPLES AND PRACTICE (3) Beckert
Purposes and scope of audits and examinations; audit principles and procedures; application of audit principles to practice material based on actual audit; and audit reports and certificates.
378. C.P.A. PROBLEMS (3) Reininga
The accounting profession; C.P.A. coaching; analysis, interpretation, and solution of state board problems. Prereq., 305-306 and 356.
379. CONTROLLERSHIP (3) Reininga
Case method study of problems and policy-forming decisions of the controllership function comprising the fields of general accounting, internal control, budgeting, taxes, cost control, and financial reporting. Prereq., 324 which may be taken concurrently.
381. RESEARCH IN ACCOUNTING (1 to 8) Staff
Prereq., 306, 324 and permission.
391. SEMINAR IN ACCOUNTING (2 to 4) Staff
Maximum credit in course, 10 hrs. Prereq., permission.
495. THESIS (1 to 6) Staff
Prereq., permission.

ADVERTISING—See Marketing-Advertising

ARCHITECTURE

Associate Professor Denison
Assistant Professor Olpp
Lecturer LeBoutillier

301. PROBLEMS IN ARCHITECTURE (1 to 3) Staff
Supervised individual projects. Maximum credit in course, 12 hrs.
375. ARCHITECTURE IN THE UNITED STATES (2) Denison
Development of architecture from colonial times.

ART

Professors Mitchell, Way, Leach (director)
Associate Professors Willis, Work
Assistant Professors C. L. Smith, Olpp, Hostetler, D. O. Roberts
Instructor Toth
Lecturers Mutchler, Kelly

To begin a graduate major or minor in the School of Painting and Allied Arts, a student must present at least twelve hours of undergraduate credit in the field of the major or the minor.

ART HISTORY

302. THE NORTHERN RENAISSANCE (3) Leach
The Renaissance as it appeared in the Netherlands, Germany, France, and England in the fifteenth and sixteenth centuries.

303. ITALIAN RENAISSANCE PAINTING (3) Olpp
Painting in Italy from the early Florentine and Sienese schools through the fifteenth and sixteenth centuries.
304. MANNERISM AND THE BAROQUE (3) Leach
Origin and development in Italy subsequent to 1520 with attention to variations in the North of Europe and in England.
371. LATIN-AMERICAN ART (3) Olpp
Architecture, sculpture, and painting of the Hispanic Southwest, Mexico, Central America, the Caribbean area, and South America from Pre-Columbian times to the present.
381. IMPRESSIONISM AND POST-IMPRESSIONISM (3) Olpp
Emphasis on developments in French art between the 1848 Revolution and 1900. The problems of the Academy, Romanticism, Classicism, Realism, Impressionism, Post-Impressionism, Cezanne, and the Symbolists.
382. CUBISM, EXPRESSIONISM, AND LATER DEVELOPMENTS (3) Leach
Appearance and development of basic artistic expressions from the beginning of the twentieth century to the present.
390. SEMINAR IN ART HISTORY (2 or 3) Staff
Individual and group problems on periods and movements. Detailed reports. Recommended for graduate students in the process of writing a thesis. Prereq., 18 hrs., and permission.

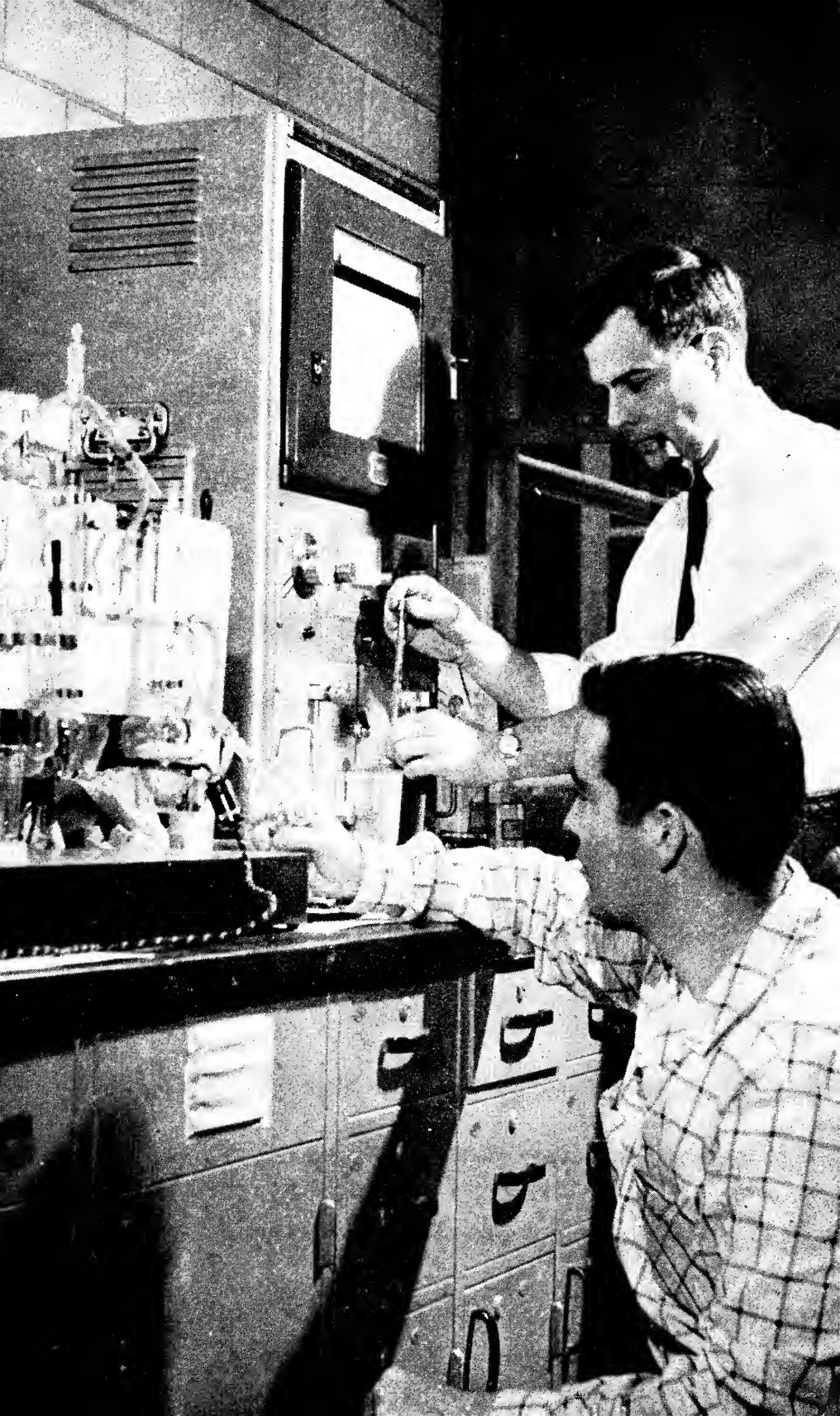
ART

301. INDIVIDUAL PROBLEMS (1-3) Staff
Registration for individual instruction. Maximum credit in course, 12 hrs. Prereq., permission.
- 309-310. PRINTS (3-3) Roberts
Silk screen, linoleum and wood blocks, etching, aquatint, dry point, lithography, and other related media. 2 lec., 4 lab. Prereq., permission.
313. ADVANCED INTERIOR DESIGN (3) Way
Research is stressed and original adaptations are made from styles of important periods. Maximum credit in course, 12 hrs. 2 lec., 4 lab. Prereq., permission.
315. ADVANCED FORM AND COMPOSITION (2) Staff
Maximum credit in course, 4 hrs. Prereq., permission.
316. ADVANCED CERAMICS (3) Hostetler
Advanced production methods. Construction of potter's wheel, ball mill, and electric kilns. Advanced glaze and clay testing techniques. Maximum credit in course, 12 hrs. Prereq., permission.
- 317-318. ADVANCED ADVERTISING DESIGN (3-3) Smith
Magazine, newspaper, direct mail, and display layout.
321. ADVANCED FASHION DESIGN AND ILLUSTRATION (2) Way
Maximum credit in course, 10 hrs. 1 lec., 3 lab.
325. ADVANCED JEWELRY (2) Willis
Maximum credit in course, 6 hrs. 1 lec., 3 lab.
327. ENAMELING (2) Hostetler
Design and construction of metallic objects toward ceramic application of enamels. 1 lec. and 3 lab.















328. FIGURE PAINTING (3) Mutchler
Painting from the nude or costumed figure. A study of the plastic qualities in oil painting in relation to the personal objectives of the individual student. Maximum credit in course, 12 hrs. Prereq., permission.
341. ADVANCED PAINTING (2 or 3) Staff
Maximum credit in course, 12 hrs. Prereq., permission.
- 351-352. INDUSTRIAL DESIGN (2 or 3-2 or 3) Toth
Design and presentation of industrial products with emphasis on function, appearance, and material. 4 lab.
- 365-366. ILLUSTRATION (3-3) Mutchler
Accent on student practice. Story and commercial illustration using present-day techniques. Maximum credit in course, 9 hrs. Prereq., Art 328 and permission.
381. RESEARCH (1-5) Staff
Individual problems of theory and practice involving research techniques. Prereq., permission.
428. FIGURE PAINTING (3) Mutchler
Advanced work from the nude or costumed figure. Maximum credit in course, 12 hrs. Prereq., Art 328 or equivalent.
431. PRINTMAKING (1-5) D. Roberts
Experimental work in various print media and their combinations. Maximum credit in course, 12 hrs. Prereq., Art 309, 310, permission.
436. SCULPTURE (1-5) Hostetler
Advanced work in plaster, wood, stone, direct steel, and ceramic media. Maximum credit in course, 12 hrs. Prereq., permission.
451. INDUSTRIAL DESIGN (1-5) Toth
Advanced problems in the design and presentation of industrial products. Maximum credit in course, 12 hrs. Prereq., Art 351 or equivalent.
471. PAINTING (1-5) Staff
Advanced work in traditional and contemporary media. Solutions to the student's problems are sought in relation to his personal objectives. Maximum credit in course, 12 hrs. Prereq., permission.
495. THESIS (1-6) Staff
Prereq., permission.

BOTANY Associate Professors Blicke, Wallace (chairman), Gambill
Assistant Professors Vermillion, Wistendahl

To begin a graduate major in botany the student must have completed a minimum of 24 hours in botanical courses including the following fields of preparation: morphology, 6 hours; physiology, 7 hours; systematic botany, 6 hours; and approved equivalents.

To begin a graduate minor in botany the student should have completed a minimum of 12 hours in approved course work in botany and/or zoology.

304. FOREST ECOLOGY (3) Wistendahl
The ecological foundations of forestry, site factors, the forest environment and methods of studying it, growth and development of trees

and stands; the origin, development, and classification of forest communities. 2 lec. and 2 lab. (2nd sem., 1959-60.)

307. ADVANCED PLANT PHYSIOLOGY (4) Wallace

An advanced study of plant processes with special emphasis on techniques employed in research. 2 lec. and 4 lab. (2nd sem., 1958-59.)

311. PALEOBOTANY (3) Blicke

A study of the fossil representatives of the greater plant groups and the sequence of fossil floras throughout geological time. Two Sat. field trips required. (2nd sem., 1958-59.)

314. ADVANCED PLANT MORPHOLOGY (3) Blicke

A course specifically for botany and forestry majors embodying detailed analyses of seed plant gross structures and their comparative evolutionary relations. 2 lec. and 2 lab. (2nd sem., 1959-60.)

315. SYSTEMATIC BOTANY (3) Gambill

A study of the systematics, nomenclature and phylogeny of the higher plants beginning with the ferns; relationship of the principal orders and families; problems of nomenclature, identification of specimens. 2 lec. and 2 lab. Two Sat. field trips required. (1st sem., 1958-59.)

316. TAXONOMY OF THE NONVASCULAR PLANTS (3) Gambill

A course dealing with the classification and phylogeny of the bryophytes and lichens. 2 lec. and 2 lab. Two Sat. field trips required. (2nd sem., 1959-60.)

318. WOOD TECHNOLOGY (3) Blicke

The structure, identification, properties and uses of North American forest products, with special attention given to the macroscopic and microscopic structure. 1 lec. and 4 lab. (2nd sem., 1958-59.)

324. FOREST PATHOLOGY (3) Vermillion

A study of the various types of diseases of forest and shade tree species, their economic importance, prevention and control. 2 lec. and 2 lab. (2nd sem., 1958-59.)

325. MYCOLOGY (3) Vermillion

A course designed to acquaint the student with ways in which man makes use of fungi in agriculture, medicine, and industry. The physiology of fungi is stressed. 2 lec. and 2 lab. (2nd sem., 1959-60.)

343. BOTANICAL STUDIES (2 to 4 a semester in any of the following)

Semi-independent studies supervised by the instructor. May include inter-departmental projects. Maximum credit in any listed area, 4 hrs., total 8 hrs. Prereq., permission.

- a. *Plant Morphology*—studies of the fundamental plant form, structure, life cycles, and reproduction. Blicke.
- b. *Plant Physiology*—studies in the primary functions, processes, and growth phenomena of plants. Wallace.
- c. *Plant Ecology*—studies of the interrelations of plants to one another and to the environment. Wistendahl.
- d. *Plant Classification*—studies in the principles, theories, and systems of plant classification. Gambill.
- e. *Plant Diseases*—studies in the nature, prevention, cause, and control of plant diseases. Vermillion.

f. *Plant Breeding*—the study of the several methods of hybridization of higher plants, polyploidy and speciation. Wallace.

g. *Mycology*—advanced studies of nonpathogenic macrofungi and microfungi. Vermillion.

381. RESEARCH PROBLEMS (1 to 4) Staff
Independent research. Maximum credit in course, 6 hrs. Prereq., permission.
- 391, 392. SEMINAR IN BOTANY (1, 1) Staff
Advanced study and original research. Required of all major and graduate students. Prereq., permission. (Yearly.)
495. THESIS (1 to 6) Staff
Prereq., permission.

BUSINESS EDUCATION

Associate Professor Sponseller (chairman)
Assistant Professors Via, Appel, Weaver

The student interested in a major in business education should enroll in Plan B of the program for the Master of Education degree. In addition to having met the entrance requirements for this program, the student planning to major in business education should have completed at least 28 hours or the equivalent in commerce and secretarial subjects.

The student planning to minor in business education should have completed 20 hours or the equivalent in commerce and secretarial subjects.

335. COMMERCIAL CURRICULUM CONSTRUCTION (2) Appel
Principles and factors necessary in the construction of a curriculum of commercial courses in the high schools of varied communities.
387. RESEARCH IN BUSINESS TEACHING PROBLEMS (1 to 8) Weaver
Prereq., permission.
391. SEMINAR IN BUSINESS TEACHING PROBLEMS (2 to 4) Weaver
Maximum credit in course, 10 hrs., Prereq., permission.
437. ADMINISTRATION IN BUSINESS EDUCATION (3 to 6) Sponseller
Problems involved in planning, administering and supervising a business education program in the high school. Prereq., permission.
Other courses to make up the total hours required for a major or minor may be selected, according to the student's interest and background and on the advice of the counselor, from the graduate offerings in commerce and education.

BUSINESS LAW

Assistant Professor Howard (chairman)
Instructor Willier

342. LAW OF REAL ESTATE (2) Howard, Willier
Deeds, mortgages, leases, and other interests in real property, and the relationships between landlord and tenant.
381. RESEARCH IN LAW (1 to 8) Staff
A study of selected cases and current litigation in any field of law of particular interest to the student. Prereq., permission.

CERAMICS—See Art

CHEMICAL ENGINEERING—See Engineering

CHEMISTRY

Professors Clippinger, Eblin (chairman)
Associate Professors Day, Huntsman, Kline, Ingham
Assistant Professors Sympson, W. B. Smith, Brooks, Tong

To begin a graduate major in chemistry the student must have completed a full year's work in Quantitative Analysis (8 hours), Organic Chemistry (10 hours), and Physical Chemistry (6 hours). Calculus (8 hours) and Physics (8 hours) are also required.

The minimum undergraduate preparation for a graduate minor in chemistry includes General Chemistry and introductory courses in analytical and organic chemistry.

Students beginning graduate work in chemistry are required to take an entrance examination covering inorganic, analytical, organic and physical chemistry. This examination is administered during registration week and the results are consulted in planning the course work of the students. Students are invited to familiarize themselves with the type and style of examination questions prior to the beginning of their graduate work. Sample questions and additional information about the examination are available upon request from the chairman of the Department of Chemistry.

303. ADVANCED QUANTITATIVE ANALYSIS (3) Sympson

A lecture course in classical analytical chemistry designed for entering graduate students needing further training in analytical chemistry. (Yearly.)

305. INSTRUMENTAL ANALYSIS (4) Sympson

Methods of instrumental analysis. Electrometry, polarography, coulometry, emission and absorption spectroscopy. Prereq., permission. (Yearly.)

313-314. PHYSICAL CHEMISTRY (3-3) Brooks, Day, Eblin

Not open to graduate students majoring in chemistry. (Yearly.)

315-316. PHYSICAL CHEMISTRY LABORATORY (2-2) Eblin

6 lab. Prereq., 313 or with 313. (Each semester.)

317. CHEMICAL THERMODYNAMICS (3) Brooks, Day, Tong

Prereq., 314 with a grade of C or better. (1st sem., yearly.)

321. QUALITATIVE ORGANIC ANALYSIS (4) Huntsman, Ingham, Smith

The separation and identification of organic compounds. Preliminary to research in chemistry. 2 lec. and 6 lab. (2nd sem., yearly.)

333. INORGANIC CHEMISTRY (3) Kline, Tong

Inorganic chemical reactions and structure. (1st sem., yearly.)

337. INORGANIC CHEMISTRY LABORATORY (2) Kline

Practical laboratory work in inorganic chemistry including the preparation of typical inorganic substances and an introduction to the chemical literature. Prereq., 333 or with 333. 6 hrs. lab. (Yearly.)

351. SPECIAL PROBLEMS IN CHEMISTRY (2 or 3) Staff

Minor research with laboratory and library work. Maximum credit in course, 6 hrs. Prereq., 24 hours in chemistry with a B average. (Given on sufficient demand.)

418. CHEMICAL KINETICS (3) Day, Tong
The purpose of the course is to gain insight into the mechanisms by which chemical reactions occur, and the energies involved, through interpretation of data on rates of reactions. Prereq., 314. (2nd sem., yearly.)
425. QUANTUM CHEMISTRY (3) Brooks
The fundamentals of quantum theory and their application to some simple systems of chemical interest. Prereq., 314. (Alternate years.)
427. SPECIAL TOPICS IN PHYSICAL CHEMISTRY (2-4) Brooks, Day, Tong
Deals with a special phase of physical chemistry such as kinetic theory of gases, statistical thermodynamics, molecular structure, or applications of thermodynamics. Prereq., 317.
434. ADVANCED INORGANIC CHEMISTRY (3) Kline, Tong
Modern theoretical inorganic chemistry. Prereq., 333. (2nd sem., yearly.)
435. SPECIAL TOPICS IN ORGANIC CHEMISTRY (2 or 3) Kline, Tong
Deals with a special phase of inorganic chemistry such as the less familiar elements, radiochemistry, or the chemistry of coordination compounds and complex ions. Prereq., 333.
- 445-446. ADVANCED ORGANIC CHEMISTRY (3-3) Huntsman, Ingham, Smith
Modern aspects of organic chemistry with emphasis on the relationships between structure and reactivity. (Yearly.)
- 451, 452. SEMINAR IN CHEMISTRY (1, 1) Staff
Selected topics. Required of all graduate students in chemistry each semester in residence. (Yearly.)
471. SPECIAL TOPICS IN ORGANIC CHEMISTRY (2 or 3) Huntsman, Ingham, Smith
Deals with a special phase of organic chemistry such as physical organic chemistry, heterocyclic compounds, steroids or terpenes.
481. RESEARCH IN CHEMISTRY (1 to 4) Staff
Prereq., 36 hrs.
495. THESIS OR DISSERTATION Staff
Prereq., permission.

CIVIL ENGINEERING—See Engineering

CLASSICAL LANGUAGES

Professor Murphy (chairman)
Instructor Hultgren

Major work on the graduate level in Greek and Latin is not offered at present.

The prerequisite for a graduate minor in Latin is 12 hours of Latin above two high school units.

The prerequisite for a graduate minor in Greek is 12 hours of Greek.

GREEK

309. ADVANCED GREEK READINGS (1 to 3) Murphy, Hultgren
Selections from the poets, dramatists, orators, and philosophers to fit the interests and needs of students. Maximum credit in course, 9 hrs. (Offered on demand.)

LATIN

303. **PLINY AND MARTIAL** (3) Murphy
Letters and epigrams revealing the human side of Roman life and society from Nero to Trajan. (1st sem., 1959-60.)
304. **LIVY AND OVID** (3) Murphy
The legendary history of early Rome and mythology in verse. (2nd sem., 1959-60.)
311. **CICERO (LETTERS) AND CATULLUS (POEMS)** (3) Hultgren
(1st sem., 1958-59.)
318. **READINGS IN LATIN LITERATURE** (1 to 4) Murphy, Hultgren
Selections from a wide range of Latin literature according to the needs and interests of students. Maximum credit in course, 10 hrs. (2nd sem., 1958-59.)
331. **THE LIFE OF THE ROMANS*** (2) Hultgren
The social customs of the Romans: the family, the house, transportation, public amusements, and related features. Illustrations from the archaeological evidence. (Given on sufficient demand.)
333. **ADVANCED LATIN SYNTAX** (2) Murphy
(Given on sufficient demand.)
340. **SPECIAL WORK IN LATIN** (1 to 4) Murphy, Hultgren
Individual work. Maximum credit in course, 8 hrs.

DESIGN—See Art

DRAMATIC ART AND SPEECH

Professors Staats,
Kantner (director), Seigfred, Andersch, LaFollette
Associate Professor Jukes
Assistant Professors Lane, Wiseman, Penson,
Hahne, Ludlum, Catalano, Watkins, Ham, Greer
Instructors Trisolini, Johnson

PROGRAM OF STUDY FOR THE MASTER'S DEGREE

Prospective graduate students in Dramatic Art and Speech should present a minimum of 18 hours of undergraduate work, including basic speech courses and courses in any or all of the following: Public Address, Speech and Hearing Therapy, Audiology, Speech Science and Phonetics, Theatre, Oral Interpretation, Radio-Television, and Speech Education. Other things being equal, preference will be given to those applicants who present 24 or more hours of work well distributed among the areas named above. Academic ability, experience records and personal recommendations are also considered in the selection of the students to be admitted for graduate study.

Those accepted with less than the minimum course requirements will be expected to make up the deficiency through further work at the undergraduate level or additional graduate courses according to the needs of the individual student.

General requirements for the Master's degree normally include Speech 401—Introduction to Graduate Work, Speech 462—Speech and

*No knowledge of Latin required.

Higher Education, and at least one course taken either as an undergraduate or at the graduate level in Public Address, Speech and Hearing Therapy, Theatre, and Radio-Television.

After fulfilling these general requirements, the student may elect to follow a comprehensive major in the broad field of speech or to specialize within a given area. The program of study also includes a minor of from 6 to 12 hours of related course work either within the field of speech or in another discipline. Students with deficiencies in preparation, whether for a specific course at the graduate level or for specialization in the major or minor areas, will be expected at the discretion of the departmental Graduate Committee to take appropriate additional course work.

A student majoring in another discipline and wishing to minor in Dramatic Art and Speech will normally be expected to complete from 6 to 12 hours of work, preferably concentrated in a given area or in closely related areas, and to meet the prerequisites for the courses chosen.

THE DOCTORAL PROGRAM

Applications for admission to graduate study at the doctoral level will be considered individually by a departmental committee established for this purpose. To be eligible for admission without conditions, an applicant must have completed the Master's Degree in the field of speech, or the substantial equivalent of the course requirements for this degree and show evidences of superior scholarship, a genuine interest in research, good character and other personal attributes appropriate to a potential member of a learned profession.

The doctoral program stresses the acquisition of a relatively broad scholarly background in the general field of speech as a basis for concentrated study in one or more areas of special interest. Upon admission, a guidance committee will be appointed for each student to plan with him a program intended to provide: (1) a reasonably comprehensive understanding of the field of speech as a whole, (2) an acceptable level of personal speech proficiency and, (3) special competence in at least one area. This special competence is to be achieved through specialization and research in a major area of study and in closely related minors.

Major areas of study presently available are: (1) Public Address and Interpretation, (2) Speech Pathology and Correction, Audiology, Speech Science and Phonetics and, (3) A combination of the above. The program of study will also include at least two minor areas with not less than 12 hours of course work in each. One of these minors may be closely related to the area of specialization. However, minors in other related disciplines that contribute to a broad cultural and scholarly background are encouraged. Within the School of Dramatic Art and Speech, minors may be taken in either of the major areas named above or in Theatre, Radio-Television, or Speech Education.

DRAMATIC ART

300. ADVANCED ACTING (3) Lane

Creation of roles in plays of different types, styles, and periods. Study of dialects. Laboratory experience in rehearsal and performance. 1 lec., 4 lab. Prereq., permission.

306. ADVANCED STAGECRAFT (3) Catalano

Theories and problems involved in scenic decor. The results of experimentation with paint and structure on the model set are applied to full-scale scenery. 1 lec., 4 lab.

- 321, 322. DRAMATIC COMPOSITION (3, 3) Trisolini
Theory of playwriting. Practical experience in the writing and re-writing of plays. Scripts of sufficient merit are produced under the writer's supervision by the University Playshop. Prereq., 6 hrs. and 12 hrs. of English and/or journalism.
323. SCENE DESIGN AND PAINTING (3) Catalano
Theories of the designing and painting of stage settings; effect of stage lighting on scenery and make-up; practical experience. 1 lec., 4 lab.
339. ACTING FOR LYRIC DRAMA (3) Trisolini
Advanced techniques of acting in relation to the form and content of lyric drama. Laboratory experience in the creation of roles. Special emphasis on the Elizabethan with some attention to Greek and 20th century authors. 1 lec., 4 lab. Prereq., 300.
- 350-351. PLAY DIRECTION (3-3) Lane
Preparation of plays for public performance; analysis of the script, methods of casting and rehearsal. Capable students direct one-act plays presented by the University Playshop. 1 lec., 4 lab. Prereq., 300 and permission.
353. MASTERS OF THE THEATRE (3) Lane
Techniques for the production of historical plays. Preparation of the director's manuscript and actual supervision of production. Open only to majors in dramatic art. Prereq., 351, and permission.
355. THEATRE MANAGEMENT (2) Seigfred
Organization and business management of theatres. Prereq., permission.
377. PERIOD COSTUME DESIGN (3) Andersch
An intensive study of the history of costuming from the time of the Egyptians through the 19th century. Emphasis on the use of color, line, and texture and adaptation in the designing of period clothes for the stage. Discussion of the relationship between the political and social trends, the architecture, interior design, etc. of the period and the clothes worn. Prereq., permission.
425. CONTEMPORARY THEATRE (3) Lane
Trends of modern world theatre beginning with the contributions of Saxe-Meiningen and the growth of realism.
435. ADVANCED LIGHTING (3) Catalano
Lighting design, history of stage lighting. Advanced technical consideration of instruments, control equipment and color media. Production experience. 2 lec., 2 lab. Prereq., 323 or with 323 or equivalent.
480. SEMINAR IN TECHNICAL THEATRE OR COSTUMING (3 or 4) Staff
Independent research projects in scene design, lighting, scenery construction or costuming. To be arranged with supervising faculty member in advance of registration. Prereq., 18 hrs. including 323 or equivalent.
481. SEMINAR IN DIRECTING OR THEATRE MANAGEMENT (3 or 4) Staff
Conferences, independent research or experimentation, and summary reports. Independent research projects must be approved prior to registration. Prereq., 18 hrs. including 351 or equivalent.
494. RESEARCH (1-12) Staff
Individual, guided research on special problems. Projects must be approved prior to registration. Prereq., permission.

495. THESIS (1 to 6) Staff
Prereq., permission.

RADIO-TELEVISION

301. PRINCIPLES OF TELEVISION PRODUCTION (3) Johnson

History of television, its impact upon society and other media of communication, production aspects of television, general principles of transmission and reception. Prereq., permission.

302. TELEVISION PRODUCTION LABORATORY (2) Johnson

Laboratory experience in the production of basic television program types. The problems of camera, audio pick-up, and floor managing as they relate to the formats of specific television productions. Prereq., 301.

- Jour. 309. RADIO-TV ADVERTISING AND MANAGEMENT (3) Turnbull

A study of the business principles and practices in the broadcasting industry, dealing with problems in radio and TV station operation, with major emphasis on time sales. Prereq., permission.

316. CONTINUITY WRITING (2) Johnson

Writing of scripts including continuity, straight and dramatized commercials, original and short sketches and stories.

331. DIRECTING FOR TELEVISION (3) Greer

Analysis and application of the theory and techniques of directing for television with special attention to the problems involved in the basic formats. 2 lec., 4 lab. Prereq., 301, 302 or equivalent.

332. DRAMATIC PRODUCTION FOR TELEVISION (3) Johnson

Television techniques as they apply to the dramatic form. Rehearsal, performance, and technical work connected with the production of the dramatic script. 2 lec., 4 lab. Prereq., 301, 331, or Dram. A. 350.

375. PROGRAM PLANNING AND BUILDING (3) Greer

A thorough study of all aspects of radio station operation with particular reference to programming, costs, staff, program building and series planning. Case study of a specific situation. Prereq., Jour. 309 or equivalent.

385. RADIO AND TELEVISION IN EDUCATION (3) Johnson

The use of educational radio and television programs in the classroom and in the home. Study of the problems in broadcasting and televising high school and college courses. Practical application in setting up programs. Prereq., 12 hrs. Radio-TV or 12 hrs. Education and permission.

483. SEMINAR IN RADIO AND TELEVISION (3) Jukes

Individual projects and advanced research in production problems, music, directing, writing, announcing and the evaluation of radio and television programs. Special emphasis on the problems and the potentialities of educational television. Prereq., permission.

484. SEMINAR IN TELEVISION PRODUCTION (3) Jukes

Current literature and advanced research in television production problems. Individual reading projects and use of laboratory facilities for research of an exploratory or experimental nature. Class discussions and reports. Prereq., 301, 302, and permission.

494. RESEARCH (1-12) Staff

Individual, guided research on special problems. Projects must be approved prior to registration.

495. THESIS (1 to 6) Staff
 Prereq., permission.
 Suggested courses: E. E. 325—Acoustics; Jour. 375—Specialized Journalism.

PUBLIC ADDRESS, ORAL INTERPRETATION, AND SPEECH EDUCATION

303. ADVANCED ORAL INTERPRETATION (3) Trisolini, Hahne
 A study of the principles of types of literature from the standpoint of the oral interpreter. Emphasis on the development of skill in the interpretation of various forms of poetry, prose, and dramatic literature.
305. PROBLEM SOLVING THROUGH GROUP DISCUSSION (3) Wiseman
 Social responsibility, ethical problems and standards; application of the principles of general semantics and group dynamics; purposes, types, and methods of discussion; frequent class practice.
309. CLASSICAL RHETORICAL THEORY (3) Staats
 The principles of rhetoric based upon the theories of Aristotle, Cicero, Quintilian, and Adams. Speeches of eminent orators are analyzed.
325. DIRECTION OF FORENSIC PROGRAMS (3) Wiseman, Ludlum
 Organization of forensic programs in high schools and colleges, management of inter-school contests and tournaments, coaching of debate, discussion and individual events, and principles of judging. Practical application in the university forensic program. Prereq., 305 or equivalent.
333. ORAL INTERPRETATION OF DRAMATIC LITERATURE (3) Trisolini
 A study of the principles of drama from the standpoint of the oral interpreter. Special emphasis on the modern period from Ibsen and Chekov to the present. Prereq., Speech 303, or Dram. A. 339.
349. RHETORICAL CRITICISM (3) Watkins
 Theories and critical methods of Plutarch, Cicero, Goodrich, Brougham and selected modern writers. Application through original critiques of selected speeches. Prereq., 309, or equivalent.
401. INTRODUCTION TO GRADUATE WORK (3) Kantner
 Men, movements, and professional literature in the field of speech. Conduct of research and selection of a thesis problem.
412. ADVANCED SPEECH COMPOSITION AND DELIVERY (3) Staats
 Advanced study of content, organization, composition and delivery of lecture-length speeches. Prereq., 309, or equivalent.
440. APPLICATIONS OF GENERAL SEMANTICS TO SPEECH (3) Wiseman
 The chief formulations from general semantics which underlie the synthesis of communication methodologies and personal integration through communication will be presented. Special emphasis on the application of these principles to the field of speech. Prereq., 10 hrs. of speech or permission.
462. SPEECH AND HIGHER EDUCATION (3) Andersch
 Philosophy and function of speech as an academic discipline, relationships to other areas of study, inter-relationships of various areas within the field, problems in the teaching of speech at the college level. Required of all graduate students in speech.
471. AMERICAN PUBLIC ADDRESS (3) Staats
 The history of public address in America from colonial times to the present. Analysis of selected speeches. Practice in the organization, composition, and delivery of speeches of substantial length.

472. BRITISH AND FRENCH PUBLIC ADDRESS (3) Watkins

A study of the pulpit and political orators of the French revolutionary period and the British parliamentary orators of the 18th and early 19th centuries. Prereq., 309 or equivalent.

475. GREEK, ROMAN AND PATRISTIC PUBLIC ADDRESS (3) Staats

Historical and cultural aspects of public address in the Greek, Roman and Patristic periods. Outstanding speakers and speeches of each period analyzed in terms of the issues of the time. A knowledge of the history of the periods studied is essential. Prereq., 309, or equivalent.

485. CONTEMPORARY STUDIES IN PUBLIC ADDRESS (3) Ludlum

Review of selected studies in public address and communication emphasizing the experimental and descriptive methods and the more significant findings of contemporary research. Prereq., 401.

490. SEMINAR IN PUBLIC ADDRESS (3) Staats, Wiseman

Advanced study in the history of public address, rhetorical theory, or rhetorical criticism and speech analysis. Class discussions and reports. Prereq., 309 or 471, or equivalent.

491. SEMINAR IN SPEECH EDUCATION (2 or 3) Andersch

Problems in the teaching of basic speech courses at the college level, evolution of the speech curriculum. Assigned problems. Prereq., 15 hrs.

494. RESEARCH (1-12) Staff

Individual, guided research on special problems. Projects must be approved prior to registration. Prereq., permission.

495. THESIS OR DISSERTATION Staff

Prereq., permission.

SPEECH AND HEARING THERAPY

307. CLINICAL METHODS (3) Ham

Basic orientation to speech therapy. Observation of children with normal and defective speech. Clinical work in the school situation and in the Children's Speech Clinic.

310. SPEECH PATHOLOGY (3) LaFollette

Anatomy of the vocal mechanism and study of organic speech disorders, such as stuttering, aphasia, cleft palate speech, spastic speech, and speech of the hard of hearing.

312. PHONETICS (3) Kantner

The study of speech sounds from sociological, physiological, and acoustical points of view. Mastery of the international phonetic alphabet. Training in phonetic transcription. Prereq., permission.

319. AUDIOMETRY AND SPEECH AND HEARING PROBLEMS (3) LaFollette

Techniques of audiometric testing with clinical practice; interpretation of audiograms; criteria for educational placement and referral; principles of hearing aid selection; public school hearing conservation programs. Prereq., permission.

320. ADVANCED CLINICAL METHODS (3) LaFollette

Methods in speech correction for adults; survey of current literature; clinical experience with adults in such problems as articulatory disorders, stuttering, aphasia, cerebral palsy, cleft palate and loss of hearing. Prereq., 310.

323. LIP READING (3) LaFollette
The basic principles of understanding language by observing the speaker's lips and facial expression. Emphasis on both theory and practice of speech reading. Special attention given to teaching methods.
335. DIAGNOSTIC PROCEDURES IN SPEECH AND HEARING THERAPY (3) Ham
The role of diagnosis in speech and hearing therapy; conducting the speech examination; the nature, purpose, administration and interpretation of the more important diagnostic tests and procedures related to the speech problem. Preparation of the case history. Prereq., 320 or with 320.
345. STUTTERING AND PSYCHOGENETIC SPEECH DISORDERS (3) Penson
A detailed study of literature in the field with emphasis on the nature, causes, development, and treatment of stuttering and other speech defects with psychogenic implications. Extensive case studies. Prereq., 310, 320 or with 320.
392. SPEECH SCIENCE (3) Penson
Structure and function of the mechanism for speech and hearing. Anatomical, physiological and neurological considerations. Laboratory projects.
405. CLINICAL PROGRAMS IN SPEECH AND HEARING THERAPY (3) LaFollette
Organization and administration of clinical programs in speech and hearing therapy. Administrative structures, services, professional standards and underlying philosophies in speech and hearing clinics, both public and private. Prereq., 310, 319, 320.
455. LANGUAGE FOR THE DEAF AND HARD OF HEARING (3) LaFollette
Stage-by-stage instruction for the teaching of speech to deaf and hard of hearing children of all ages. Consideration of basic problems, specific techniques and special equipment. Students with severe hearing losses may audit this course by special permission without the prerequisites. Prereq., 307, 319, 323 or equivalent.
465. LANGUAGE PROBLEMS OF THE BRAIN INJURED (3) Ham
Consideration of the neurological basis, pathological causes and speech and psychological implications of cerebral palsy, aphasia, and other types of brain injury, together with methods of therapy. Prereq., 310, 320, 392, or with 392.
476. RESEARCH DESIGN IN SPEECH SCIENCE (3) Penson
Scope and philosophy of speech science. Instrumentation, research designs, areas of research and significant findings in selected contemporary studies. Group or individual research projects in speech pathology, audiology and phonetics. Prereq., 392.
492. SEMINAR IN SPEECH CORRECTION (3) Penson, LaFollette
Current literature and advanced research in the field of speech correction. Individual reading projects. Class reports and discussions.
494. RESEARCH (1-12) Staff
Individual, guided research on special problems. Projects must be approved prior to registration. Prereq., permission.
495. THESIS OR DISSERTATION Staff
Prereq., permission.

ECONOMICS

Professors Gubitz, Hellebrandt, Picard (chairman)
Associate Professors Crewson, Levinson
Assistant Professors Witte, Olsen

To begin a graduate major or minor in economics, a student seeking the M.A. degree should have at least 30 hours in commerce and/or economics and/or related social sciences, including Principles of Economics.

A student seeking the M.B.A. degree with a major or minor in economics should have at least 30 hours in commerce and/or economics, including Principles of Economics and the other requirements stated on page 16.

305. ECONOMICS OF TRANSPORTATION (2 or 3 as scheduled) Olsen

The social, political, and economic aspects of transportation. The economic characteristics of transportation rates and the machinery developed for their determination and adjustment are emphasized.

309. PUBLIC UTILITIES (2 or 3 as scheduled) Levinson

The economic basis of the public utility concept and its relation to business organization. The nature, scope, development, legal organization and regulation of public utilities.

315. PUBLIC FINANCE (3) Picard

Analysis of spending and taxing functions of federal, state, and local governments. The growing importance of fiscal policy in determining level of employment. The economic effects of the various taxes of federal, state, and local governments.

320. ORGANIZATION AND STRUCTURE OF INDUSTRY (3) Olsen

Emphasizes the economic characteristics of the principal manufacturing and processing enterprises, and considers their historical development, financial organization, and legal aspects.

329. COMPARATIVE ECONOMIC SYSTEMS (2 or 3 as scheduled) Crewson

An analysis of the institutional framework of the following systems: modified capitalism, socialism, communism, and fascism. Special emphasis is given to the prevailing economic institutions in the United States, Great Britain, Russia, and Spain.

330. HISTORY OF ECONOMIC THOUGHT (2 or 3 as scheduled) Hellebrandt,
Picard

The historical evolution of the major economic doctrines; mercantilists and cameralists, physiocrats, Adam Smith and the classical school, the historical school, the Austrian school, Alfred Marshall and the neoclassicists.

332. MODERN ECONOMIC THOUGHT (2 or 3 as scheduled) Picard, Witte

An analysis of the contributions to economics of the most significant writers since Alfred Marshall.

333. ECONOMIC THEORY (2 or 3 as scheduled) Witte

An intensive study of the price system as an allocative mechanism. This includes the price and production policies of individual firms under alternative market conditions and an analysis of the effect of these policies on the social efficiency of resource allocation.

335. LABOR ECONOMICS (3) Levinson

Survey of the economic forces generating modern labor problems. Among the topics considered are: history of the labor movement, labor in politics, labor-management relations, wages, and full employment.

338. LABOR LEGISLATION (2 or 3 as scheduled) Levinson

Survey of the law bearing upon labor problems. Among the topics considered are labor-relations legislation, old-age and unemployment insurance, workmen's compensation, and wages-and-hours legislation. Prereq., 335.

342. INTERNATIONAL ECONOMICS (2 or 3 as scheduled) Crewson

A study of the economic relations of nations of the world. Some of the topics considered are: the economic basis for international trade and investment; the mechanics of international exchange; tariffs, quotas, exchange control, cartels, and state trading as devices of economic nationalism; and international economic cooperation with special reference to organizations affiliated with the United Nations.

350. NATIONAL INCOME AND EMPLOYMENT ANALYSIS (3) Witte

A study of the factors which determine the level of the nation's economic activity and which are responsible for growth and stability in the nation's economy. Part of the course is devoted to measures of the national income while the remainder consists of an analysis of the interrelationships among production, price levels, relative prices, employment, and capital formation.

355. ECONOMIC HISTORY OF THE UNITED STATES (3) Staff

A study of the economic factors in the development of the United States including the historical growth of economic institutions such as banking, manufacturing, labor unions, and agriculture from colonial times to the present.

375. ECONOMIC DEVELOPMENT (3) Crewson

An analysis of the nature of, obstacles to, and future possibilities for the economic growth of nations. Special emphasis is given to the problems of the underdeveloped countries. Studies of selected countries are utilized.

381. RESEARCH IN ECONOMICS (1 to 8) Staff
Prereq., permission.**391. SEMINAR IN ECONOMICS (2 to 4) Staff**
Maximum credit in course, 10 hrs. Prereq., permission.**495. THESIS (1 to 6) Staff**
Prereq., permission.**EDUCATION**

Professors Morton, Hansen, Benz,
Shoemaker, Hill, Hamblin
Associate Professors Quick, C. H. Roberts, McKelvey,
Krantz, Crowell, Felsing, Evans, Lynn
Assistant Professors Deland, Cooper, Bean, Shuster,
Sligo, Chase, Ploghoff

Students wishing to major in education will be required to have sufficient undergraduate preparation in education to qualify them for the Ohio provisional certificate or its equivalent. This teaching credential is based upon an approved program of four years of college work including certain professional courses.

Students wishing to minor in education will be required to have 12 hours of undergraduate work in education or closely related fields.

The Master of Education degree affords optional plans of study— (Plan A) 28 semester hours of course work and a thesis for which 4 credit hours are allowed, (Plan B) 34 semester hours of course work.

The student electing to follow Plan A leading to the M.Ed. degree will comply with the requirements stipulated on page 24. Not later than one month before the oral examination on thesis, the candidate must take a written comprehensive examination. This examination will consist of two parts, (1) questions pertaining to the candidate's major field of study, and (2) questions pertaining to the three courses which are listed as general requirements for majors in Education. See page 48 for these general requirements.

The program for the Master of Education degree under Plan B is designed especially for teachers, administrators, and others engaged in and preparing for educational work in the public schools. Though the program is available to any student who is preparing to teach in the public schools, it will be of interest to students in education, physical education, industrial arts, home economics, and business education. Other areas of study may be included. The degree program under Plan B is available under the same requirements as Plan A except for the following provisions:

1. The student must be approved for the program by the committee on graduate study in his major department. This approval is given only if, after a review of the student's educational aims and interests, the program seems to fit his needs.
2. The student's major or minor program must be in the area of education. If the professional work is taken in the minor, it must consist of not fewer than 8 or 9 hours. This professional work may be taken in the College of Education, or any other department or division offering professional courses for teachers, if this work better suits the student's needs.
3. The student must complete a minimum program of 34 semester hours of credit for the degree. Training in research methods and writing appropriate to the work of teachers, administrators, and other educational workers will be initiated in the course, Introduction to Graduate Study, and will culminate in a required Seminar course or courses (2-4 semester hours).
4. The student must pass a written comprehensive examination (4 to 6 hours) based on his major field of study and the courses which are general requirements for majors in Education. The major fields of study are: School Administration, Secondary School Administration, Secondary Education, Elementary School Administration, Elementary Education, Guidance Counseling, and Teacher Counseling. The courses which are general requirements for majors in Education are described below. This written comprehensive examination must be taken as directed by the major department and not later than four weeks before the date when the degree is conferred.

The programs for various special areas of professional education cover the most common interests of graduate students in education. A general major in "education" can be planned for any student not interested in these specializations. Such a major would include the "general requirements" plus additional courses selected to fit the student's needs.

The "suggested electives" in these programs are not rigidly restrictive. Other courses can be added or substituted, with the approval of the adviser.

A minor in education will be arranged for interested students, with choice of courses to suit individual needs.

The College of Education has established patterns of training for candidates who wish to be recommended for administrative and supervisory certificates in the State of Ohio. The selection of courses can be planned to meet state and degree requirements.

General Requirements for Majors in Education:

To provide a common basis in fields underlying all aspects of education, all majors in any phase of education are required to complete the following:

- Ed. 350-355, History and Philosophy of Education (Select one) 3 hrs.
- Ed. 428—Advanced Principles of Teaching ----- 3 hrs.
 (Students who have a strong background in the field of instruction and teaching methods may fulfill this requirement by taking a qualifying examination. Suggested readings are available and the examination can be arranged through the student's major adviser. Under no circumstances, however, can credit be earned in Ed. 428 by examination only.)
- Ed. 488—Introduction to Graduate Study -----3 hrs.
 (To be taken, if possible, in first term of residence.)

SCHOOL ADMINISTRATION

General Requirements: (9 hours as outlined on page 48.)

Major Requirements:

| | Hours | | Hours |
|--|-------|--|-------|
| Ed. 410—Administration of the Elementary School | 2 | Ed. 442—School Finance and Business Administration | 2 |
| Ed. 430—High School Administration | 2 | Ed. 443—School Law | 2 |
| Ed. 440—Local School Administration | 3 | Ed. 446—Supervision of Instruction | 2-4 |
| Ed. 441—State and National School Administration | 3 | Ed. 495—Thesis (or, if nonthesis, 4 hrs. from electives) | 4 |

Suggested Electives:

| | | | |
|---|-----|--|-----|
| Ed. 332—The High School Curriculum | 3 | Ed. 385—Educational Measurements | 3 |
| Ed. 340—School Public Relations | 2 | Ed. 403—Advanced Studies of Children | 3 |
| Ed. 350—History of Education | 3 | Ed. 411—Problems in Elementary Curriculum | 3 |
| Ed. 352—Comparative Education | 3 | Ed. 412—Seminar in Elementary Education | 2-4 |
| Ed. 353—Evolution of Educational Thought | 3 | Ed. 444—Human Problems in School Administration | 3 |
| Ed. 354—Philosophy of Education | 3 | Ed. 445—School Building Planning | 2 |
| Ed. 360—Guidance Principles | 3 | Ed. 446—Supervision of Instruction | 2-6 |
| Ed. 361—Guidance Practice | 1-3 | Ed. 447—Personnel Administration in Public Schools | 3 |
| Ed. 362—Information Service in Guidance | 2 | Ed. 470—Seminar in Secondary Education | 2-4 |
| Ed. 374—Improvement of Reading in Secondary Schools | 2 | Ed. 484—Research in Education | 1-6 |
| Ed. 381—Educational Statistics | 3 | | |

SECONDARY SCHOOL ADMINISTRATION

General Requirements: (9 hours as outlined on page 48.)

Major Requirements:

| | | | |
|------------------------------------|---|--|-----|
| Ed. 332—The High School Curriculum | 3 | Ed. 446—Supervision of Instruction | 2-4 |
| Ed. 360—Guidance Principles | 3 | Ed. 495—Thesis (or, if nonthesis, 4 hrs. from electives) | 4 |
| Ed. 430—High School Administration | 2 | | |
| Ed. 440—Local Administration | 3 | | |

Suggested Electives:

| | | | |
|--|---|---|-----|
| Any course(s) from division of History and Philosophy of Education | | Ed. 374—Improvement of Reading in Secondary Schools | 2 |
| Ed. 340—School Public Relations | 2 | Ed. 381—Educational Statistics | 3 |
| Ed. 350—History of Education | 3 | Ed. 385—Educational Measurements | 3 |
| Ed. 352—Comparative Education | 3 | Ed. 444—Human Problems in School Administration | 3 |
| Ed. 353—Evolution of Educational Thought | 3 | Ed. 470—Seminar in Secondary Education | 2-4 |
| Ed. 354—Philosophy of Education | 3 | Ed. 484—Research in Education | 1-6 |
| Ed. 362—Information Service in Guidance | 2 | Psych. 310—Mental Hygiene | 3 |

SECONDARY EDUCATION

(A major for teachers)

General Requirements: (9 hours as outlined on page 48.)

Major Requirements:

| | | | |
|------------------------------------|---|--|-----|
| Ed. 332—The High School Curriculum | 3 | Ed. 470—Seminar in Secondary Education | 2-4 |
| Ed. 360—Guidance Principles | 3 | Ed. 495—Thesis (or, if nonthesis, 4 hrs. from electives) | 4 |
| Ed. 385—Educational Measurements | 3 | | |

Suggested Electives:

| | | | |
|--|---|---|---|
| (to complete at least 20 hours for the major) | | Ed. 353—Evolution of Educational Thought | 3 |
| Any course(s) from division of History and Philosophy of Education | | Ed. 354—Philosophy of Education | 3 |
| Ed. 340—School Public Relations | 2 | Ed. 362—Information Service in Guidance | 2 |
| Ed. 350—History of Education | 3 | Ed. 374—Improvement of Reading in the Secondary Schools | 2 |
| Ed. 352—Comparative Education | 3 | Ed. 381—Educational Statistics | 3 |
| | | Psych. 310—Mental Hygiene | 3 |

Minor: (8-12 hours in high school teaching subject or subjects)

GUIDANCE COUNSELING

(A major for professional guidance workers)

General Requirements: (9 hours as outlined on page 48.)*Major Requirements:*

| | Hours | | Hours |
|----------------------------------|-------|-------------------------------------|-------|
| Ed. 360—Guidance Principles | 3 | Ed. 495—Thesis (or, if nonthesis, | |
| Ed. 361—Guidance Practice | 1-3 | 4 hrs. from electives) | 4 |
| Ed. 362—Information Service in | | Psych. 303—Mental Measurements | 3 |
| Guidance | 2 | Psych. 320—Personnel and Vocational | |
| Ed. 385—Educational Measurements | 3 | Counseling | 3 |

Suggested Electives:

| | | | |
|--|---|---------------------------------------|---|
| Any course(s) from division of History and Philosophy of Education | | H.R. 304—Human Relations | 3 |
| Ed. 374—Improvement of Reading in | | H.R. 493—Seminar in Student Personnel | |
| Secondary Schools | 2 | Administration | 3 |
| Ed. 381—Educational Statistics | 3 | H.R. 494—Seminar in Student Personnel | |
| Ed. 460—Seminar in Guidance | 3 | Administration | 3 |
| Ed. 462—Field Experience in Guidance | 2 | Psych. 310—Mental Hygiene | 3 |
| H.R. 303—Human Relations | 3 | Psych. 337—Counseling and | |
| | | Psychotherapy | 3 |

TEACHER COUNSELING

(A major for teachers)

General Requirements: (9 hours as outlined on page 48.)*Major Requirements:*

| | | | |
|----------------------------------|---|-----------------------------------|---|
| Ed. 360—Guidance Principles | 3 | Ed. 495—Thesis (or, if nonthesis, | |
| Ed. 385—Educational Measurements | 3 | 4 hrs. from electives) | 4 |

Suggested Electives:

| | | | |
|---|-----|--------------------------------------|---|
| (to complete at least 20 hours for the major) | | Ed. 460—Seminar in Guidance | 2 |
| Ed. 361—Guidance Practice | 1-3 | Ed. 462—Field Experience in Guidance | 2 |
| Ed. 362—Information Service in | | Psych. 303—Mental Measurements | 3 |
| Guidance | 2 | Psych. 310—Mental Hygiene | 3 |
| | | Psych. 320—Personnel and Vocational | |
| | | Counseling | 3 |

Minor: (8-12 hours in teaching field or fields)

ELEMENTARY SCHOOL ADMINISTRATION

General Requirements: (9 hours as outlined on page 48.)*Major Requirements:*

| | | | |
|--------------------------------------|---|-------------------------------------|-----|
| Ed. 403—Advanced Studies of Children | 3 | Ed. 440—Local School Administration | 3 |
| Ed. 410—Administration of the | | Ed. 446—Supervision of Instruction | 2-4 |
| Elementary School | 2 | Ed. 495—Thesis (or, if nonthesis, | |
| Ed. 411—Problems in Elementary | | 4 hrs. from electives) | 4 |
| Curriculum | 3 | | |

Suggested Electives:

| | | | |
|--|---|-----------------------------------|-----|
| Any course(s) from division of History and Philosophy of Education | | Ed. 360—Guidance Principles | 3 |
| Ed. 340—School Public Relations | 2 | Ed. 381—Educational Statistics | 3 |
| Ed. 350—History of Education | 3 | Ed. 385—Educational Measurements | 3 |
| Ed. 352—Comparative Education | 3 | Ed. 389—Supervision of Arithmetic | 2 |
| Ed. 353—Evolution of Educational | | Ed. 412—Seminar in Elementary | |
| Thought | 3 | Education | 2-4 |
| Ed. 354—Philosophy of Education | 3 | Ed. 444—Human Problems in School | |
| | | Administration | 3 |
| | | Ed. 484—Research in Education | 1-4 |

ELEMENTARY EDUCATION

(A major for teachers)

General Requirements: (9 hours as outlined on page 50.)*Major Requirements:*

| | | | |
|--------------------------------------|---|-----------------------------------|-----|
| Ed. 385—Educational Measurements | 3 | Ed. 412—Seminar in Elementary | |
| Ed. 403—Advanced Studies of Children | 3 | Education | 2-4 |
| Ed. 411—Problems in Elementary | | Ed. 495—Thesis (or, if nonthesis, | |
| Curriculum | 3 | 4 hrs. from electives) | 4 |

| Hours | Hours |
|--|---|
| * Suggested Electives: | Ed. 381—Educational Statistics ----- 3 |
| (to complete a minimum of 11 hours) | Ed. 385—Educational Measurements -- 3 |
| Any course(s) from division of History | Ed. 389—Supervision of Arithmetic --- 2 |
| and Philosophy of Education | Ed. 410—Administration of the |
| Ed. 350—History of Education ----- 3 | Elementary School ----- 2 |
| Ed. 352—Comparative Education ----- 3 | Ed. 484—Research in Education ----- 1-4 |
| Ed. 353—Evolution of Educational | Psych. 304—Psychology of Exceptional |
| Thought ----- 3 | Children ----- 2 |
| Ed. 354—Philosophy of Education ---- 3 | Psych. 310—Mental Hygiene ----- 3 |
| Ed. 360—Guidance Principles ----- 3 | Psych. 315—Social Psychology ----- 3 |

GENERAL EDUCATION

(A general major to meet the individual requirements not previously listed)

General Requirements: (9 hours as outlined on page 48.)

All other courses to be selected with approval of the adviser.

(COURSE OFFERINGS)

ELEMENTARY EDUCATION

311. PROBLEMS IN ELEMENTARY TEACHING PRACTICES (3) Staff

Open only to students with the bachelor's degree who are preparing for elementary certification, and who have no student teaching credit. To be given only in connection with the supervision of the student's on-the-job teaching experience. Maximum credit in course, 6 hrs. Prereq., permission.

389. SUPERVISION OF ARITHMETIC (1 to 3) Benz

A summary of research, the implications of educational psychology, and a survey of current trends in the teaching and supervision of arithmetic.

403. ADVANCED STUDIES OF CHILDREN (3) Quick

An intensive study of certain basic research in child development and its implications for education. Prereq., permission.

411. PROBLEMS IN THE ELEMENTARY CURRICULUM (3) Quick

A critical study of the basic issues and theories underlying curriculum development. Prereq., permission.

412. SEMINAR IN ELEMENTARY EDUCATION (2 to 4) Staff

A course designed for teachers and administrators who wish to extend their professional preparation through individual research, group study, and planning in the areas of elementary education. Maximum credit in a semester, 2 hrs. Prereq., permission.

GUIDANCE AND COUNSELING

360. GUIDANCE PRINCIPLES (3) Hill

The need for guidance in the schools. The nature of guidance. The major services, their operation, organization, and evaluation.

361. GUIDANCE PRACTICE (1 to 3) Hill and Staff

Directed practice in counseling and other personnel services in cooperating schools to develop greater familiarity and skill in some of the commoner guidance services. Prereq., 360 and permission.

*As an alternative to this group of electives, the student may complete a minor in an area other than education or in a combination of education and some other subject-matter field.

362. INFORMATION SERVICE IN GUIDANCE (2) Hill
The collection, evaluation, and use of occupational, educational and related information in the school guidance program. Prereq., 360.
460. SEMINAR IN GUIDANCE (2) Hill and Staff
Advanced study of special problems in guidance. Prereq., 360, 361, or equivalent.
461. WORKSHOP IN GUIDANCE (By special arrangement in Summer Session and Extension only) (1 to 3) Hill and Staff
A concentrated study program for school workers with special attention to guidance problems in the participant's school. Prereq., 360 or equivalent, and permission.
462. FIELD EXPERIENCE IN GUIDANCE (2) Hill and Staff
Supervised field work in schools in some guidance service. Periodic campus conferences and visitation conferences in the schools are required. Prereq., 361.
Related graduate courses:
Ed. 381—Educational Statistics, Ed. 385—Educational Measurements, H.R. 303-304—Human Relations, H.R. 493, 494—Seminar in Student Personnel Administration, Psych. 303—Mental Measurements, Psych. 316—Psychology of Individual Differences, Psych. 320—Personnel and Vocational Counseling, Psych. 337—Counseling and Psychotherapy.

HISTORY AND PHILOSOPHY

350. THE HISTORY OF EDUCATION (3) Shoemaker
Studies the agencies of education and the social forces which have conditioned them during ancient, medieval, and modern times.
351. THE SCHOOL IN THE SOCIAL ORDER (3) Shoemaker
Education in the United States from the colonial period to the present. The social, political, economic, religious, and philosophical foundations which have conditioned the evolution of the public schools.
352. COMPARATIVE EDUCATION (3) Shoemaker
A study of the educational systems of various countries and the extent to which they meet the needs of the people.
353. THE EVOLUTION OF EDUCATIONAL THOUGHT (3) Shoemaker
Deals solely with the educational writings of such theorists as Plato, Aristotle, Quintilian, Montaigne, Locke, Comenius, Rabelais, Rousseau, Pestalozzi, Froebel, Herbart, and Dewey.
354. PHILOSOPHY OF EDUCATION (3) Shoemaker
A comparison of pragmatism, idealism, and realism as philosophical bases for education. Each student is helped to formulate his philosophy of education.
355. SOCIAL FOUNDATIONS OF EDUCATION (3) Shoemaker
The interactions between the school and the social order in which it exists. The role of the school will be studied in various types of contemporary societies.
358. WORKSHOP IN ECONOMIC EDUCATION (Summer Session and Extension only) (1 to 3) Bean
A study of basic economic concepts and practical economic problems with the view to their integration into the school curriculum. Prereq., permission.

450. HIGHER EDUCATION (2) Staff

A survey of the background and growth of higher education in the United States. Present status of various types of institutions will be studied. Prereq., permission.

RESEARCH AND SCIENTIFIC TECHNIQUES**381. EDUCATIONAL STATISTICS (3) Sligo**

The tabulation and graphical representation of frequency tables, measures of central tendency, percentiles and percentile curves, measures of variability, probability and the normal curve, and correlation.

382. ADVANCED EDUCATIONAL STATISTICS (3) Sligo

Nonlinear relations, partial correlation, multiple correlation, regression, transmutation of scores, reliability, and the interpretation of correlation coefficients. Practice in the use of logarithms, statistical tables, and calculating machines. Prereq., 381.

395. EDUCATIONAL MEASUREMENTS (3) Sligo

The improvement of the essay examination; criteria for evaluating tests; teacher-made objective tests; standardized tests; elementary statistical procedures.

388. CONSERVATION EDUCATION WORKSHOP (Summer Session only) (5) Staff

A field course designed primarily for teachers in service. Relationships between conservation and the natural sciences primarily for the elementary and junior high school teacher. Prereq., approval of adviser.

483. RESEARCH IN EDUCATIONAL STATISTICS (1 to 6) Sligo

An advanced course in statistics dealing with the derivation of formulae, the analysis of relationships, and the interpretations of results. Prereq., 382 and permission.

484. RESEARCH IN EDUCATION (1 to 6) Staff

Students are directed in the investigation of selected phases of educational theory and practice. Prereq., permission.

488. INTRODUCTION TO GRADUATE STUDY (3) Hill, Sligo

Methods of research in education and the selection, planning and evaluation of research problems. The history and purposes of graduate education. Required of all graduate students in education. Prereq., open to all graduate majors and minors in education and to others by permission.

495. THESIS (1 to 6) Staff

Prereq., permission.

SECONDARY EDUCATION**374. THE IMPROVEMENT OF READING IN SECONDARY SCHOOLS (2) Staff**

The extension of the reading program beyond the elementary school; the teaching of reading as a developmental process.

428. ADVANCED PRINCIPLES OF TEACHING (3) Hill, C. Roberts

A critical appraisal of teaching in the light of available research on learning and teaching.

470. SEMINAR IN SECONDARY EDUCATION (2 to 4) Staff

A course designed for teachers and administrators who wish to extend their professional preparation through individual research, group study and planning in the areas of secondary education. Maximum credit in a semester, 2 hrs. Prereq., permission.

SCHOOL ADMINISTRATION AND SUPERVISION

332. THE HIGH SCHOOL CURRICULUM (3) C. Roberts
The high school program of studies, contributions of various subjects, theories of curriculum construction, curriculum research, and desirable steps in the reorganization of the high school curriculum.
340. SCHOOL PUBLIC RELATIONS (2) Staff
The function of public relations in school administration in public understanding of the school's work, development of the media for effective communication, and furthering lay participation in determination of school policy.
410. ADMINISTRATION OF THE ELEMENTARY SCHOOL (2) Ploghoft
The responsibilities of both teachers and principal in democratic administration in such areas as curriculum construction, supervision, plant management, public relations. Practical problems used as a basis of study. Prereq., 440.
430. HIGH SCHOOL ADMINISTRATION (2) Lynn
The program of studies, the program for health, vocational education, guidance, extracurricular activities, provisions for individual differences, the selection and assignment of teachers, and the school schedule. Prereq., 440.
440. LOCAL SCHOOL ADMINISTRATION (3) Krantz
Emphasis upon local and community school administration, including the administrative process, democratic school administration, the role of leadership, structural organization of schools, the board of education, and the superintendency.
441. STATE AND NATIONAL SCHOOL ADMINISTRATION (3) Krantz
Emphasis upon state and national school administration, including the state program of education, state responsibility, educational organization, certification and tenure, national educational services, federal relations to education and national problems in education. Prereq., 440.
442. SCHOOL FINANCE AND BUSINESS ADMINISTRATION (2) Chase
Local, state and federal finance, with problems in the financing of schools; business management in such areas as the school budget, financial reports, school purchasing, transportation and insurance. Prereq., 440.
443. SCHOOL LAW (2) Bean
The constitutional basis for education, schools and their legal setting, school legislation and court decisions, with special reference to Ohio school law. Prereq., 440.
444. HUMAN PROBLEMS IN SCHOOL ADMINISTRATION (3) Benz
A course dealing with problems of human relations in school administration. Prereq., 440 and permission.
445. SCHOOL BUILDING PLANNING (2) Chase
The planning of new school buildings and sites, plant evaluation, rehabilitation, maintenance problems, and school equipment. Prereq., 440.
446. SUPERVISION OF INSTRUCTION (2 to 6) Felsing, Shuster
The principles underlying democratic supervision and techniques which promote the growth of teachers in service. Laboratory experiences in analysis of teaching situations. Prereq., 410, or 332 and 430.

447. PERSONNEL ADMINISTRATION IN PUBLIC SCHOOLS (3) Krantz

Designed to prepare administrators to meet their personnel problems including the underlying philosophy of personnel administration, development of policies covering selection, classification, certification, tenure, contracts, in-service training programs, and placement of teaching and non-teaching personnel in the schools.

472. LABORATORY SCHOOL PROBLEMS (2) Staff

For critic teachers, demonstration teachers, directors of student teaching in teacher-training institutions, and for those desiring to prepare for such positions. Prereq., permission.

473. SUPERVISION OF STUDENT TEACHING (2 to 6) Staff

Designed to prepare students for the work of the supervising teacher in a college or university. Major emphasis will be upon directing student teachers in learning to teach children. Prereq., permission.

SPECIAL EDUCATION — ELEMENTARY**321. ORGANIZATION OF SPECIAL EDUCATION FOR EXCEPTIONAL CHILDREN (2) DeLand**

Educational needs of those who differ markedly from normality—the slow-learning, the retarded, and the gifted; the physically handicapped; the emotionally unstable and socially maladjusted; their characteristics and incidences. Adjustments within regular classrooms, special classes, and special schools; individual child study, classification, and follow-up.

325. PROBLEMS IN SPECIAL EDUCATION —THE SLOW LEARNER (2 to 6) DeLand

Designed for the regular classroom teacher in elementary and secondary education who might have retarded or slow learners in with average and rapid learners. How to locate their needs and what to do about them.

ELECTRICAL ENGINEERING—See Engineering**ENGINEERING**

Professors Green, P. H. Black
Associate Professors Badger, Quisenberry,
Selleck, G. E. Smith, Curry, Hicks
Assistant Professors Niesse, Lindley, Russ
Instructor Bjerre
Lecturer Cartland

Programs of graduate study may be formulated with majors in either electrical or mechanical engineering. Course offerings in civil and chemical engineering are limited to the minor.

The standard four-year course in engineering or its equivalent as offered in institutions approved by the Engineers' Council for Professional Development is a general prerequisite for graduate study. Graduates in science and other fields of engineering whose programs have included sufficient courses in mathematics, physics, chemistry, the humanities and the social sciences may be accepted as graduate students. Such students must take such undergraduate courses in basic engineering subjects as the staff may require.

381. RESEARCH (1 to 6) Staff

Prereq., approval by chairman of department in which work is performed.

390. SPECIAL INVESTIGATIONS IN ENGINEERING (1 to 3) Staff

Individual work or work in small groups, under guidance, in research or advanced study in a particular field of engineering. Maximum credit in course, 6 hrs. Prereq., approval by chairman of department in which work is performed.

391. SEMINAR (1 to 3) Staff

Prereq., approval by chairman of department in which work is performed.

495. THESIS (1 to 6) Staff

Prereq., approval by chairman of department in which work is performed.

CHEMICAL ENGINEERING

(Dr. Curry, Chairman)

310-311 UNIT OPERATIONS (3-3) Staff

A study of the fundamental principles of fluid flow, heat transfer and other basic unit operations with problems to illustrate the principles. Prereq., Chem. 313 (for 310), 314 (for 311).

312. UNIT OPERATIONS LABORATORY (2) Staff

Laboratory practice to illustrate the principles of selected unit operations and unit processes and to aid students in gaining confidence in the handling of pilot plant equipment. Development of ability to devise workable procedures and to conduct experiments with minimum supervision is stressed. Improvement of skill in oral and written reporting is a parallel objective. 6 lab. Prereq., 310 and with 311 and 320.

320. UNIT PROCESSES (3) Staff

Investigation of typical industrial chemical processes with respect to the unit steps such as nitration, sulfonation, reduction and hydrolysis, which arranged in varying sequence constitute the processes. Consideration is also given to sources of raw material and energy, to types of equipment, and to the role of economics. Prereq., 310.

340. DESIGN AND INSTRUMENTATION (5) Staff

Project work involving chemical process design, including evaluation and extension of fundamental data by calculation, choice of operating conditions, estimation of costs, selection of equipment, and the application of automobile controls. 3 lec., 6 lab. Prereq., 311, 320 and Chem. 314.

For Research, Special Investigations, Seminar, and Thesis in Engineering, see pages 55 and 56.

CIVIL ENGINEERING

(Mr. Badger, Acting Chairman)

313. ADVANCED SURVEYING PROBLEMS (2) Staff

Principles and practices in calculations for azimuth, latitude, and longitude by observations on Polaris and the sun with the transit. Land surveying problems, contour lines, use of the plane table. 1 lec., 3 lab.

314. PHOTOGRAMMETRY (3) Staff

Equipment and methods used in aerial photography. Use of map-making equipment and study of specialized equipment used by private aerial survey organizations and government agencies.

326. ADVANCED STRENGTH OF MATERIALS (3) Staff

Curved bars; stresses in flat plates; buckling of bars, plates, and shells; theories of strength. Prereq., Math. 315 or with Math. 315.

330. STRUCTURAL ANALYSIS II (4) Russ
Theory of analysis of structures for which the conditions of static equilibrium are not sufficient to obtain a solution.

331. STRUCTURAL DESIGN II (3) Lindley
A study of the design of reinforced concrete members and structures, and a continuation of steel design. Prereq., 330 or with 330.

For research, Special Investigations, Seminar, and Thesis in Engineering, see pages 55 and 56.

ELECTRICAL ENGINEERING

(Dr. Green, chairman)

301-302. COMMUNICATION ENGINEERING (4-4) Green
A study of the fundamentals of communication engineering at radio and telephone frequencies. Network theorems, resonance, transmission lines, filters, and coupled circuits. Impedance matching, amplifiers, modulators, radiation, and applications to radio and telephone apparatus. 3 lec., 2 lab. Prereq., 308.

303-304. ELECTRICAL MACHINES (5-5) Selleck
Characteristics and performance of direct and alternating current motors and generators and single and polyphase static transformers. 4 lec., 2 lab.

307-308. ENGINEERING ELECTRONICS (3-3) Smith
A comprehensive theoretical and practical treatment of the fundamentals of electronics and the general properties of electronic tubes with application to engineering. 2 lec., 2 lab.

309. APPLIED ELECTRONICS (3) Cartland
Fundamental network analysis, vacuum and gas diodes, triodes, welding timers and pulse circuits, induction heating, industrial electronic control, magnetic-amplifiers, strain gages. Not open to Electrical Engineering majors. 2 lec., 2 lab.

310. SEMI-CONDUCTORS (3) Bjerre
Physics of semi-conductors. Transistor equivalent circuits, amplifiers, oscillators, modulation and detection. 2 lec., 2 lab. Prereq., 307 or with 307.

321-322. HIGH-FREQUENCY CIRCUITS AND ELECTROMAGNETIC RADIATION (3-3) Green
Application of electronic and communication principles to high-frequency circuits and a study of electromagnetic radiation and antennae. Prereq., 308 or 309 or permission.

323, 324. ADVANCED RADIO LABORATORY (1 to 4, 1 to 4) Green
Special problems of current interest in the field of radio engineering. 2-8 labs.

325. ACOUSTICS (3) Green
Principles of sound generation and propagation in free space and in enclosures, methods of sound measurement; characteristics of speakers, microphones and receivers; design of horns; acoustics of auditoriums, theaters and broadcasting studios; public address systems. 2 lec., 2 lab.

328. ILLUMINATING ENGINEERING (3) Staff
Principles of light and radiation; various light sources, their characteristics and efficiencies; principles and practice of photometry; design of illumination for various types of homes and industries. Laboratory gives practice in illumination measurements. 2 lec., 2 lab.
331. SERVOMECHANISMS (3) Quisenberry
Automatic controller design, including the study of viscous output damping, error rate damping, integral control, error rate stabilization networks and transfer functions. Prereq., 304.
332. CONTROL OF ELECTRICAL MACHINERY (3) Selleck
Magnetic and electronic motor controllers, including a study of control theory and applications to given problems. Prereq., 304.
334. ADVANCED CIRCUITS (3) Quisenberry
The Laplace Transform applied to transient solutions of linear systems. Special attention is given to electromechanical systems, including feedback and vacuum tube amplifiers. Prereq., Math. 315.
335. ELECTRIC AND MAGNETIC FIELDS (3) G. E. Smith
A study of electrical phenomena from the viewpoint of field theory. Prereq., Math. 315.
341. ELECTRICAL TRANSMISSION OF POWER (3) Selleck
Economic and electrical principles of transmission of electrical power, line equations and calculations, hyperbolic solution of long lines, insulation and protection against transients, mechanical principles and practical line construction. Prereq., 304.
342. SYMMETRICAL COMPONENTS (3) Quisenberry
Circuits analysis by symmetrical components. Representation of unbalanced polyphase currents and voltages by component symmetrical sets; solution of faults on power systems. Prereq., 304.
344. ELECTRICAL DESIGN (3) Selleck
Fundamental electric machine design relations. After a preliminary study, the student designs a direct current generator, a transformer, and an induction motor and predetermines the performance. Prereq., 304.
- 345-346. PROBLEMS IN ADVANCED A. C. MACHINERY (3-3) Staff
Problems taken up deal with transient conditions in alternators, motors, and transformers. Applications of the methods of symmetrical components to unbalanced operating conditions. 2 lec., and 2 lab. Prereq., 304.
401. ELECTRICAL STATION DESIGN (3) Quisenberry
The application of economic principles to the problems of electric generating station design, selection of apparatus, balancing initial and subsequent costs, interrelation of the mechanical and electrical elements of design. Prereq., 304.
- For Research, Special Investigations, Seminar, and Thesis in Engineering, see pages 55 and 56.

MECHANICAL ENGINEERING

(Mr. Black, chairman)

302. DYNAMICS OF MACHINERY (3) Black
Analytical and graphical studies of velocities and accelerations, and of static and inertia forces in machinery; engine force analysis and balancing of machinery.

303. MACHINE DESIGN I**(3) Black**

Application of mechanics, mechanism, materials, and mechanical processes to the design and selection of machine members and units of power transmission.

304. MACHINE DESIGN II**(3) Black**

Application of the work covered in 303 to the design of complete machines and sub-assemblies. 6 lab. Prereq., 303 or with 303.

311. AIR CONDITIONING AND REFRIGERATION**(3) Staff**

Psychrometrics, heating, cooling, humidifying and decontamination of air for domestic and commercial purposes. Refrigeration systems. Heat pump. Cooling-load calculations. Refrigeration and heating practice. Prereq., permission.

312. INTERNAL COMBUSTION ENGINES**(4) Staff**

Analysis and testing of spark-ignition and compression-ignition engines including combustion, thermodynamics, carburetion, detonation, fuels and fuel injection. 3 lec., 2 lab.

314. HEAT TRANSFER**(3) Hicks**

Basic concepts of conduction, convection and radiation; steady and unsteady states, film coefficients and dimensional analysis.

392. ADVANCED MACHINE DESIGN**(3) Black**

Advanced problems in the design and analysis of machine members including consideration of stress propagation; stress analysis; fatigue and creep; mechanical vibration; Coriolis' acceleration; Castigliano's theorem; and graphical analysis. Prereq., 303 and permission.

393. LUBRICATION AND FRICTION**(3) Black**

Derivation of Reynold's equation and its application to bearings and gear teeth; load capacity and thermal equilibrium. Boundary lubrication, lubricant composition, surface finish, bearing materials and bearing performance. Prereq., Math. 315 and permission.

394. MECHANICAL VIBRATIONS**(3) Niesse**

The characteristic phenomena of mechanical vibrations encountered in machines and structures, and their quantitative investigation. Simple-harmonic motion; combinations of simultaneous motions; free and forced vibration; damping effects; critical speeds; balancing; electro-mechanical analogy; principles of transmission and isolation of vibration; systems of several degrees of freedom; self-excited vibration; instrumentation. 2 lec., 2 lab. Prereq., Math. 315.

395. ADVANCED THERMODYNAMICS**(3) Hicks**

A review of classical thermodynamics, the Maxwell relations, free energy, kinetic equilibrium of combustion.

For Research, Special Investigations, Seminar, and Thesis in Engineering, see pages 55 and 56.

ENGLISH

Professors Wray (chairman), Foster, Kendall
 Visiting McGuffey Professor Summers
 Associate Professors McQuiston, Lash, Kirchner,
 Thompson, Stone
 Assistant Professors Aney, Swardson
 Instructors R. Roe, Molin

To begin a graduate major in English the student will have completed essentially the requirements for a Bachelor of Arts major in English.

In order to qualify as a graduate minor in English, a student will normally present 18 hours of undergraduate credit in English.

For the M.A. degree in the Department of English, provision is made for a creative writing option in which the candidate submits poetry, a short story, novel or play in lieu of a thesis.

311. HISTORY OF THE ENGLISH LANGUAGE (3) R. Roe
An elementary account of the growth of the English language; its relation to other world languages; the vocabulary and grammar of Anglo-Saxon, Middle English, and Modern English; selections from Early English literature. (1st sem., 1958-59.)
312. CHAUCER (3) Staff
Chaucer, his life and his world; contemporary literature; his early works; *The Canterbury Tales*; *Troilus and Criseyde*; Chaucer scholarship. Prereq., 311 recommended. (2nd sem., 1958-59.)
321. SIXTEENTH CENTURY LITERATURE (3) Wray
A study of England's part in the Renaissance and the humanistic movement as revealed in the works of the chief poets and prose writers of the century. (1st sem., 1958-59.)
322. ELIZABETHAN DRAMA (3) Kendall
A study of the English drama from 1550 to 1642, thus including the predecessors, the contemporaries, and the immediate followers of Shakespeare. (2nd sem., 1959-60.)
323. SHAKESPEARE (I) (3) McQuiston
Shakespeare's development as a writer of comedies and historical dramas; his life and social background; the Elizabethan stage and theatrical companies. A research paper. (1st sem., yearly.)
324. SHAKESPEARE (II) (3) McQuiston
Intensive analysis of the great tragedies and more rapid reading of the other tragedies and the sonnets; Shakespearean scholarship and criticism. A research paper. (2nd sem., yearly.)
331. SEVENTEENTH CENTURY LITERATURE (3) Foster
The poetry and prose of such writers as Donne and Bacon; Herrick and other Cavalier and "metaphysical" poets; Browne, Walton, Hobbes, Bunyan, Pepys; Restoration plays. (1st sem., 1958-59.)
332. MILTON (3) Foster
Emphasis on John Milton's minor poems, some of his prose, and *Paradise Lost*, *Paradise Regained*, and *Samson Agonistes*; (2nd sem., 1958-59.)
341. EIGHTEENTH CENTURY LITERATURE (I) (3) Molin
The poetry of Pope and Gay; the essays of Addison and Steele; the works of Swift and Defoe; the novels of Richardson and Fielding; the drama. (1st sem., 1959-60.)
342. EIGHTEENTH CENTURY LITERATURE (II) (3) Molin
Dr. Johnson, his works, his personality, his friends; Boswell and his biography of Johnson; Goldsmith and Sheridan; Walpole; Gray and Cowper; the philosophers. (2nd sem., 1959-60.)
351. POETRY OF THE ROMANTIC PERIOD (3) Kendall
The poetry of Wordsworth, Coleridge, Byron, Shelley, Keats; philosophical background and historical context of Romanticism—Rousseau, Godwin, the French Revolution, the Napoleonic Empire. (1st sem., 1958-59.)

352. VICTORIAN POETS (3) Kirchner

The influence of the Victorian Age upon the lives and the poetry of Tennyson, The Brownings, Arnold, Swinburne, the Rossettis, Morris, and Clough. (2nd sem., 1958-59.)

353. ENGLISH PROSE OF THE NINETEENTH CENTURY (3) Wray

A study of the essayists and major prose writers of the Romantic and Victorian periods, including Lamb, Hazlitt, DeQuincey, Coleridge, Carlyle, Newman, Ruskin, Huxley, and Arnold. (1st sem., 1958-59.)

356. EMERSON, THOREAU, AND THE CONCORD GROUP (3) Kirchner

A study of Emerson, Thoreau, Alcott, Fuller, and others whose lives and writings were influenced by that American form of idealism known as Transcendentalism. (2nd sem., 1959-60.)

361. TWENTIETH CENTURY PROSE (3) Stone

An intensive analysis of such writers as Joyce, Faulkner, Hemingway, and Wolfe. (1st sem., 1958-59.)

362. TWENTIETH CENTURY DRAMA (3) Thompson

An intensive analysis of such writers as Shaw, O'Neill, Anderson, Williams, and O'Casey. (2nd sem., 1958-59.)

368. TWENTIETH CENTURY POETRY (3) Foster

An intensive analysis of such poets as Eliot, Auden, Frost, Thomas, and some younger poets. (2nd sem., 1959-60.)

371. HISTORY OF LITERARY CRITICISM (3) Thompson

A review of the theories and practice of literary criticism in Europe from Aristotle through the Renaissance, neoclassic, and Romantic schools to the present. (1st sem., 1959-60.)

372. PRACTICAL LITERARY CRITICISM (3) Thompson

A survey of the distinctive ways whereby modern literary scholars attempt to elucidate and evaluate works of literature. Readings in contemporary criticism and preparation of critical papers that will exemplify some of the distinctive techniques of literary analysis. Prereq., 371 and permission. (2nd sem., 1959-60.)

390. STUDIES IN ENGLISH (1 to 3) Staff

Directed reading and research in English or American literature for individual students with special interests and competence. Conferences and papers. (See also the Honors Program.) Maximum credit in course, 6 hrs. Prereq., permission of chairman.

391-392. MASTERS SEMINAR (1-1) Staff

Discussion of problems of research and of criticism in relation to thesis in progress. Required of English majors in the honors program and of candidates for the master's degree in English who are writing a research thesis. (Yearly).

393-394. CREATIVE WRITING SEMINAR (3-3) Kendall

Criticism of manuscripts and discussion of problems of form. Required of candidates for the master's degree in English who are submitting creative work in lieu of the research thesis. Prereq., permission. Admission only in the fall, except for unusual reasons. (Yearly.)

396. SENIOR SURVEY OF ENGLISH LITERATURE (1) Swardson

An intensive survey of English literature including a wide background of reading, weekly lectures presented by staff members and a comprehensive final examination. (Yearly)

401. BIBLIOGRAPHY AND THESIS WRITING (3) Aney

Students are given an introduction to basic reference works, scholarly and critical journals, and pertinent bibliographies. Assigned exercises in methodology may include the field of the student's course work or thesis. Required of all candidates for the Master's degree in English. (1st sem., yearly.)

470. SEMINAR IN LITERARY PROBLEMS (3) Staff

Intensive study of an author, group, or form. Maximum credit in courses, 6 hrs.

495. THESIS (1 to 6) Staff

Prereq., permission. (Each semester.)

FINANCE

Professor Cherrington (chairman)
Associate Professor Fichthorn
Assistant Professor Dawson
Lecturer Wolfe

To begin a graduate major or minor in finance, the student should have at least 30 hours in commerce and/or economics, including basic courses in finance.

306. SECURITY ANALYSIS (3) Fichthorn

The problems of selection or sale of securities for investment purposes. Industry structure, volume-price-cost relationships, management, financial position, terms of the security contract, and market price behavior are studied to determine the attractiveness of a security. Construction of portfolios for individual investors is considered briefly. Report writing and case discussion.

312. CREDIT AND COLLECTION MANAGEMENT (3) Fichthorn

The process of extending credit to business firms and of collecting outstanding indebtedness. Subjects covered include financial statement analysis, types of credit information and its evaluation, policies for extending credit, determining credit limits, collections and credit department organization and administration. Emphasis is on mercantile and bank credit. Report writing and case discussion.

315. PROPERTY AND CASUALTY INSURANCE (3) Fichthorn

Analysis of the principal types of property and casualty insurance policies with respect to protection afforded the policyholder, his obligations, and cost of protection. Policies studied include fire and extended coverage, allied lines, business interruption, inland marine, automobile, general liability, theft, and bonds. The subjects of risk, insurance-law, industry organization, and multiple-peril policies are also covered.

316. LIFE INSURANCE (2 or 3) Staff

The fundamental economics of life insurance. The principles and practices of life insurance including types of contracts, group and industrial insurance, annuities, etc.

341. MONEY AND BANKING (3) Dawson

The basic concepts of money, credit, and exchange with emphasis on bank credit expansion by the Federal Reserve and commercial banks, and a study of monetary policies followed by the Federal Reserve and Treasury. A historical study of the development of the monetary system of the United States.

351. MONETARY THEORY (3) Dawson

A study of the theories advanced to explain the relationship between money and its value, the relationship between money and the level of economic activity, allocations of funds among alternate uses, and interest and interest rates. Prereq., 341 or permission.

356. PROBLEMS IN CORPORATION FINANCE (3) Cherrington

This course is developed through the use of the cases which deal with short-term financing, long-term financing, reserve and dividend policies, expansion and combination, refunding, recapitalization, and reorganization.

381. RESEARCH IN FINANCE (1 to 8) Staff

Special studies in money, banking, or corporation finance. Prereq., permission.

391. SEMINAR IN FINANCE (2 to 4) Staff

Maximum credit in course, 10 hrs. Prereq., permission.

495. THESIS (1 to 6) Staff

Prereq., permission.

Additional course: Ec. 315—Public Finance.

FRENCH—See Romance Languages

GEOGRAPHY AND GEOLOGY

Professor Sturgeon (chairman)
Assistant Professors Phelps, Aukland
Instructors Lehrer, Korsok

Graduate students who wish to minor in geography or geology should have a minimum of 12 hours in geography or geology, respectively, in courses approved by the department. A major program in geography is not offered.

Graduate students who wish to major in geology must have completed 3 hours in each of the following courses: historical geology, mineralogy, petrology, and structural geology, and in addition they must have completed sufficient hours of the following to complete a minimum of 24 hours in geology: economic geology, glacial geology, geomorphology, paleontology, sedimentation, stratigraphy, and field geology. At least 6 hours each of chemistry, physics, and mathematics through trigonometry are also required. Students unable to meet the above requirements will be asked to make up deficiencies without graduate credit. It is recommended, where appropriate, that the graduate student complete differential calculus, quantitative chemistry, and credit in a recognized field camp.

GEOGRAPHY**301. GEOGRAPHY OF THE SOVIET UNION*** (3) Korsok

Intensive geographic study of the Soviet Union. (2nd sem., 1958-59.)

305. GEOGRAPHY OF LATIN AMERICA* (3) Lehrer

Intensive geographic study of Latin America. (1st sem., 1958-59.)

308. GEOGRAPHY OF EUROPE* (3) Korsok

Intensive geographic study of Europe. (2nd sem., 1959-60.)

312. GEOGRAPHY OF SOUTHERN ASIA AND ISLANDS* (3) Korsok

Intensive geographic study of Southern and Eastern Asia. (1st sem., 1959-60.)

*Students in related fields such as history, economics, government, and sociology may take the course by special permission.

322. GEOGRAPHY OF AFRICA* (3) Lebrer
Intensive geographic study of Africa. (2nd sem., 1958-59.)
360. POLITICAL GEOGRAPHY* (3) Staff
Geographic basis of national strength or weakness. Physical and cultural influences upon historical development emphasized. (1st sem., 1958-59.)
382. GEOGRAPHICAL STUDIES (1 to 4 a semester in any of the following) Staff
Supervised studies in fundamentals of geographic research. Maximum credit in any one area, 8 hrs. Prereq., permission. (Each semester.)
- Cartography.
 - Conservation of Natural Resources.
 - Economic Geography.
 - Meteorology and Climatology.
 - Physiography. (See Geol. 383-a).
 - Political Geography.
 - Regional Geography.

GEOLOGY

314. PRINCIPLES OF STRATIGRAPHY (3) Sturgeon
Processes and principles involved in the study of stratigraphy. 2 lec., 2 lab., and field trips. Prereq., 343. (2nd sem., yearly.)
315. GEOLOGY OF OHIO (2) Sturgeon
Introduction to the geology of Ohio emphasizing physiography, stratigraphy, and economic geology. 2 lec., field trips. (1st sem., 1958-59.)
333. OPTICAL CRYSTALLOGRAPHY (2) Aukland
The optical behavior of common rock-forming minerals by powder immersion techniques and the use of the petrographic microscope. 1 lec., 2 lab. (1st sem., 1958-59.)
342. PETROGRAPHIC METHODS (3) Aukland
An introduction to the identification of rocks by thin-sections and the petrographic microscope. A selection of 100 North American rocks is studied. 2 lec., 2 lab. Prereq., 333. (2nd sem., 1958-59.)
343. PRINCIPLES OF SEDIMENTATION (3) Aukland
Processes and principles involved in study of sediments. 2 lec., 2 lab., and field trips. (2nd sem., yearly.)
353. MICROPALAEONTOLOGY (3) Sturgeon
Deals with animal fossils commonly studied under the microscope. 1 lec., 4 lab., and field trips. (1st sem., 1958-59.)
362. STRUCTURAL GEOLOGY (3) Phelps
Study of the earth's architecture and of the diastrophic forces instrumental in the deformation of the earth's crust. 2 lec., 2 lab., and field trips. Prereq., Trigonometry. (2nd sem., yearly.)
371. ECONOMIC GEOLOGY—METALS (3) Phelps
Principles of metallic mineral deposition and a survey of the ore deposits of the world. 2 lec., 2 lab. (1st sem., 1958-59.)

*Students in related fields such as history, economics, government, and sociology may take the course by special permission.

372. **ECONOMIC GEOLOGY—Non-metals** (3) Aukland
Principles of non-metallic mineral deposition and a survey of non-metallic and mineral fuel deposits of the world. 2 lec., 2 lab., and field trips. (2nd sem., 1958-59.)
383. **GEOLOGICAL STUDIES** (1 to 4 a semester in any of the following) Staff
Supervised studies in fundamentals of geologic research. Maximum credit in any one area, 8 hrs. Prereq., permission.
a. Glacial Geology and Physiography. Aukland, Phelps.
b. Mineralogy, Petrology, or Economic Geology. Aukland, Phelps.
c. Paleontology. Sturgeon.
d. Sedimentation and Stratigraphy. Aukland, Phelps, Sturgeon.
e. Structural Geology. Phelps.
- 385, 386. **GEOLOGIC FIELD RECONNAISSANCE** (1-5) Staff
Vacation period geologic field trips to selected areas in North America with pertinent conferences, readings, and accepted reports. Prereq., permission.
- 391, 392. **SEMINAR IN GEOLOGY** (1, 1) Staff
Selected topics. Required of all graduate minors and majors. Prereq., permission. (Yearly.)
415. **REGIONAL STRATIGRAPHY—EASTERN NORTH AMERICA** (3) Sturgeon
Detailed consideration of stratigraphy east of the Great Plains. 2 lec., 2 lab. Prereq., 314. (1st sem., 1958-59.)
416. **REGIONAL STRATIGRAPHY—WESTERN NORTH AMERICA** (3) Phelps, Sturgeon
Treatment similar to 415 but covering the Great Plains and cordilleran regions. 2 lec., 2 lab. Prereq., 314. (2nd sem., 1958-59.)
425. **REGIONAL PHYSIOGRAPHY—EASTERN NORTH AMERICA** (3) Aukland
Study of surface features and related significant geologic data of North America east of the Great Plains. 2 lec., 2 lab., and field trips. Prereq., 314, 362. (1st sem., 1959-60.)
426. **REGIONAL PHYSIOGRAPHY—WESTERN NORTH AMERICA** (3) Phelps
Similar to 425 but covering the Great Plains and cordilleran regions. 2 lec., 2 lab. Prereq., 314, 362. (2nd sem., 1959-60.)
493. **RESEARCH IN GEOLOGY** (1 to 4) Staff
Maximum credit in course, 6 hrs. Prereq., permission. (Yearly.)
495. **THESIS** (1 to 6) Staff
Maximum credit in course, 6 hrs. Prereq., permission.

GERMAN

Associate Professors Krauss, Lederer
Assistant Professor Benson (chairman)

To begin a graduate major in German, the student should have completed a minimum of 28 hours of undergraduate courses including German grammar and composition.

To begin a graduate minor, the student should have completed a minimum of 16 hours of undergraduate courses in the languages.

- 301, 302. **SURVEY OF GERMAN LITERATURE** (3, 3) Lederer
- 303, 304. **READINGS FROM GERMAN LITERATURE** (1 to 4, 1 to 4) Staff
Selected readings adapted to the needs of the class or the student. Maximum credit in each course, 8 hrs. (Given on sufficient demand.)

- 311, 312. NINETEENTH CENTURY GERMAN DRAMA (3, 3) Krauss
A study of the German drama of the nineteenth century and the reading of the more important plays connected with the various movements. (1959-60.)
313. CLASSICAL GERMAN DRAMA (3) Lederer
Plans of Lessing, Goethe, and Schiller are studied. (1st sem., 1958-59.)
314. GOETHE'S FAUST (3) Lederer
A detailed study of Goethe's greatest contribution to modern thought and life. Prereq., 313. (2nd sem., 1958-59.)
319. THE GERMAN SHORT STORY, 1800-1850 (2) Krauss
Reading of representative short stories from Romanticism to Poetic Realism with discussion of the literary movements. (1st sem., 1959-60.)
320. THE GERMAN SHORT STORY, 1850-1900 (2) Krauss
Reading of representative short stories of Poetic Realism with discussion of this literary movement. (2nd sem., 1959-60.)
321. CONTEMPORARY GERMAN SHORT STORY (2) Krauss
Reading of representative stories from Naturalism to the present time with discussion of the various literary movements. (1st sem., 1958-59.)
322. WAGNER'S POETICAL WORKS (2) Krauss
Richard Wagner's principal music dramas will be read and discussed for their literary content. (Given on sufficient demand.)
323. GERMAN LYRICS AND BALLADS (2) Lederer
Reading and discussion of the German lyrics and ballads since Goethe. (Given on sufficient demand.)
351. ADVANCED GERMAN GRAMMAR AND STYLE (2) Lederer
Grammatical analysis. Free composition and translation into German. (Given on sufficient demand.)
371. ADVANCED GERMAN (1 to 4) Staff
Reading and research in German language and literature. Maximum credit in course, 8 hrs.
- 421-422. INTRODUCTION TO MIDDLE HIGH GERMAN (2-2) Staff
Selected readings from medieval German lyrics and epics. (Given on sufficient demand.)
495. THESIS (1 to 6) Staff
Prereq., permission.

GOVERNMENT

Associate Professors Collins, Gusteson (chairman),
Elsbree
Assistant Professors Everett, Fairfield

To begin graduate work with government as a major, a minimum of 18 hours in government, or its equivalent, is required.

To begin a graduate minor in government, a minimum of 6 hours in government, or its equivalent, is required.

- 301, 302. AMERICAN CONSTITUTIONAL LAW (2, 2) Gusteson
Principles underlying American constitutional government as seen in leading cases, with special reference to interpretation of the constitution of the United States. (Yearly.)

- 305. AMERICAN POLITICAL PARTIES** (3) Gusteson
The origin and growth, the organization and methods of parties, the influence of economic and social conditions on party policy, the position and functions of the party system in democracies. (Yearly.)
- 308. LEGISLATURES AND LEGISLATIVE PROCESSES** (3) Gusteson
Major problems of representative government with respect to legislative assemblies. Analysis of structure, organization, and procedures; problems of representation; relationship between the legislature, the executive, the courts, and the people. (Yearly.)
- 309. LAW ENFORCEMENT** (3) Gusteson
Survey and analysis of the problems of the American policing, prosecutory, judicial, and correctional system. Emphasis on both policy making and administration. (Yearly.)
- 323. INTERNATIONAL LAW AND ORGANIZATION** (3) Everett
Development and analysis of the principles of public law governing the relations of states, emphasizing current problems and developments. Analysis of the role of international organizations in the relations of states, maintaining international peace, developing international law. (2nd sem., yearly.)
- 331. FAR EASTERN GOVERNMENTS AND POLITICS** (3) Elsbree
A study of the governmental organization, political parties and foreign policies of China, Japan and selected countries of Southeast Asia. Political developments since 1945 will be emphasized. (Yearly.)
- 341. AMERICAN FOREIGN POLICY** (3) Collins
A consideration of the problems involved in the formulation and execution of foreign policy. Particular emphasis is given to the current problems of American policy. (2nd sem., yearly.)
- 343. AMERICAN POLITICAL THOUGHT** (3) Fairfield
The origin and development of political ideas in the United States, growth of democratic principles from the colonial times to 1856, and an analysis of recent trends in American political thought. (Yearly.)
- 344. RECENT POLITICAL THOUGHT** (2) Elsbree
Recent political theories basic to political and social institutions: individualism, collectivism, fascism, and democracy; emphasis on the European version of democracy, totalitarianism of the communist and fascist states. (Yearly.)
- 348. PUBLIC ADMINISTRATION** (3) Collins
The theory and practice of administrative organization, and control of administrative action, with emphasis on financial and public personnel administration. Basic course for preparation for civil service examinations. (Yearly.)
- 349. ADMINISTRATIVE LAW** (3) Collins
Organization, functions, procedures, and administrative problems of selected national regulatory agencies; principles affecting administrative discretion; administrative power over private rights; enforcement and judicial control of administrative action. (Yearly.)
- 370. STUDIES IN GOVERNMENT** (1 to 3) Staff
Intensive study of special topics in the field of government and political science. Areas of study include comparative government, international affairs, political parties, political theory, public administration, public law. Maximum credit in course, 12 hrs. Prereq., permission. (Each semester.)

391. SEMINAR IN GOVERNMENT (1 to 3) Staff
Maximum credit in course, 6 hrs. Prereq., 15 hrs.
398. PROBLEMS IN GOVERNMENT (1 to 3) Staff
Research or directed reading based upon the student's special interest. Maximum credit in course, 6 hrs. Prereq., permission.
401. RESEARCH IN GOVERNMENT (1 to 3) Staff
Maximum credit in course, 6 hrs. Prereq., permission.
495. THESIS (1 to 6) Staff
Prereq., permission.

GREEK—See Classical Languages

HISTORY

Professors Cady (chairman), Gustavson
Associate Professors Morrison, C. H. Roberts, Stevens
Assistant Professors Daniel, Mayes, Lobdell
Instructor Thompson

To undertake graduate work with history as a major, a minimum of 18 hours in history is required, including the basic survey courses in European and American history, or their equivalent, and at least two courses in the 300-399 group.

To begin a graduate minor in history, a minimum of 6 hours in history, or approved equivalents, is required.

Graduate students majoring in history are required to take Hist. 395.

301. COLONIAL AMERICA (3) Lobdell
The discovery and colonization of America, relation of the colonies to England, and the daily life of colonial Americans. (1st sem., yearly.)
302. THE REVOLUTIONARY ERA (3) Daniel
An intensive study of the causes of the Revolution, the struggle for independence, the movement for a new government, and the framing of the Constitution. (2nd sem., yearly.)
310. SECTIONAL CONTROVERSY, 1820-1850 (2) Stevens
Slavery and political controversy, rise of the common man, rural conditions, transportation, immigration, education, the factory system, reform agitation, territorial annexations, growth of nationality. (1st sem., yearly.)
312. THE CIVIL WAR AND RECONSTRUCTION (3) Stevens
The sections of the United States in 1850, forces leading to war, the great conflict; Reconstruction, its background and development; restoration of home rule in the South, general cultural and economic development. (2nd sem., yearly.)
316. HISTORY OF THE INDUSTRIAL REVOLUTION IN THE UNITED STATES, 1850-1941 (3) Daniel
Origins of the factory system in America, the impact of the Civil War, rise of heavy industry, problems of financing and control, influence of the progressive era, resurgence of big business during wartime and the twenties, industrial problems of the depression period. (2nd Sem., 1958-59.)

321. THE UNITED STATES IN RECENT TIMES, 1898-1928 (3) Lobbell
American imperialism, the Progressive Era, World War I, retreat from world responsibility, and the post-war prosperity period. (1st sem., yearly.)
322. THE UNITED STATES IN RECENT TIMES, SINCE 1928 (3) Lobbell
The great depression, the New Deal, abandonment of isolation, World War II, post-war crises and problems. (2nd sem., yearly.)
324. HISTORY OF AMERICAN DIPLOMACY (3) Thompson
A survey of the development of the foreign policy of the United States, emphasizing relations with Latin America, the Far East, and Europe to World War II. (1st sem., yearly.)
325. THE WESTWARD MOVEMENT (3) Daniel, Stevens
Expansion from the Atlantic to the Pacific. Explorations, Indian trade, land policies, pioneer life, territorial acquisitions and state making, trails and railroads to the Far West, rise of cowboy land, types of later frontiers, and influence of the West upon American ideals and institutions. (2nd sem., yearly)
331. SOCIAL HISTORY OF THE UNITED STATES (3) Daniel
The story of immigration, race, the family, class structure, religion, leisure and "the American way of life"; problems of disease, poverty, crime, and urbanization. (1st sem., yearly.)
332. CULTURAL HISTORY OF THE UNITED STATES (3) Daniel
The development of American art, architecture, music, forms of literary expression, science, and educational means for the dissemination of culture. (2nd sem., yearly.)
352. INDIA AND SOUTHEAST ASIA IN MODERN TIMES (3) Cady
Historic civilizations of India and Southeast Asia; the impact of Western colonial rule on the peoples of the area; readjustment following the gradual liquidation of colonial empires. (2nd sem., yearly.)
361. THE RENAISSANCE AND THE REFORMATION (3) Mayes
A study of Europe in transition from the 14th to the 16th centuries, with special emphasis on Italy. The course will examine the rise of the national states, the commercial revolution, humanism, art and architecture, the later medieval church, the rise of Protestantism, and the Catholic Reformation. (2nd sem., 1959-60.)
363. TUDOR AND STUART ENGLAND (3) Mayes
England in the 16th and 17th centuries; a study of Tudor absolutism, the English Reformation, the constitutional crises (parliament versus the Crown) of the Stuart period, the republican experiment under Cromwell, the beginnings of empire, and the major cultural and economic developments. (2nd sem., alternate years.)
365. FRENCH REVOLUTION (3) Gustavson
An intensive study of such historical factors as causation, influence of ideology, institutional organization, and the role of the individual in a great social upheaval. (2nd sem., yearly.)
370. EUROPE BETWEEN WORLD WARS (3) Gustavson
Fascism, communism, and the twenty-year armistice between 1919 and 1939. (1st sem., 1958-59).
372. CONTEMPORARY EUROPE (3) Gustavson
Problems of peace and war in Europe since 1939. (2nd sem., yearly.)

375. HISTORY OF RUSSIA (3) Gustavson
A survey from the earliest times to the present. The Russian background of communist ideas, organization, and practices is stressed. (1st sem., yearly.)
378. THE HISTORY OF MODERN GERMANY (3) Gustavson
A survey of Germany and central Europe since the Age of Napoleon. (2nd sem., yearly.)
385. IMPERIALISM AND WORLD POLITICS (3) Cady
Types of imperialism; empire building during the nineteenth and twentieth centuries by Russia, Japan, United States, Great Britain, France, Germany, and Italy. (1st sem., yearly.)
390. REPRESENTATIVE HISTORIANS AND THEIR WRITINGS (2 or 3 as scheduled) Staff
Typical historians from the time of Herodotus with readings from their masterpieces to illustrate schools of interpretation, philosophies of history, and the development of historical writing. (2nd sem., 1959-60.)
392. PROBLEMS IN HISTORY (1 to 3) Staff
Intensive individual work either in research or in systematic reading along the lines of the student's special interest under the supervision of a member of the staff. Prereq., permission. Maximum credit in course, 6 hrs. (Each semester.)
395. HISTORIOGRAPHY AND METHODOLOGY (3) Staff
An introduction to the technique of historical investigation with practice in historical criticism and writing. Prereq., permission. (1st sem., yearly.)
398. SEMINAR IN HISTORY (1 to 3) Staff
Reports based upon original research with group discussion and criticism. Maximum credit in course, 6 hrs. Prereq., permission (2nd sem., yearly.)
495. THESIS (1 to 6) Staff
Prereq., permission.

HOME ECONOMICS

Professor V. M. Roberts (director)

Associate Professor Bane

Assistant Professors Macauley, Lewis, Nehls, Cowan, Sellers

Instructors Makroczy, Lowe, Price, Rogers

A student desiring a master's degree with a major in home economics must have a minimum of 18 semester hours of undergraduate preparation in the field of home economics in which she wishes to specialize and/or in approved related fields. For a graduate program in General Home Economics, the student is required to have a minimum of 24 hours distributed among at least three areas of home economics.

A student desiring a graduate minor in home economics must have a minimum of 12 semester hours of undergraduate preparation in the field of home economics in which she wishes to specialize and/or in approved related fields.

HOME ECONOMICS

360. WORKSHOPS IN HOME ECONOMICS (1-2) Staff

Special workshops to aid the home economics teacher will be scheduled during summer sessions. Maximum credit toward graduate degree, 6 hrs. The areas of study include:

- a. Home Economics Education
- b. Clothing and Textiles
- c. Foods and Nutrition
- d. Child Development and Family Life
- e. Consumer Education
- f. Home Furnishings
- g. Home Management
- h. Household Equipment
- i. School Lunch Management

381. RESEARCH IN HOME ECONOMICS (1 to 3) Staff

A project course in which the student carries on independent investigations or problems under the guidance of the instructor. Maximum credit in course, 6 hrs. prereq., permission.

390a, b, c, d, e. FIELD WORK IN HOME ECONOMICS (2 to 4) Staff

- a. Home Economics Extension
- b. Home Service Work With Public Utilities
- c. Institution Management
- d. Retail Merchandising
- e. Radio-TV

Through cooperation with business organizations, department stores, radio-TV stations, and the Home Economics Extension Department, opportunities are given for on-the-job training and practical experience. The faculty adviser serves as coordinator of the work established with these outside agencies. Prereq., permission.

391. SEMINAR IN HOME ECONOMICS (1 or 2) Staff

Prereq., permission.

495. THESIS (1 to 6) Staff

Prereq., permission.

CHILD DEVELOPMENT AND FAMILY LIFE

375a, b. READINGS IN CHILD DEVELOPMENT AND FAMILY LIVING

(2 or 3) Nehls, Price

- a. Child Development
- b. Family Living

An intensive study through library research of a phase of child development or a problem in family living. Weekly conferences. Maximum credit in course, 6 hrs. Prereq., permission.

377. TECHNIQUES WITH YOUNG CHILDREN (3) Nehls, Price

Techniques of guidance of nursery school children, with emphasis on emotional and social development of the child and the effect of family attitudes on behavior. 2 lec., 3 hrs. at Nursery School.

378. ADMINISTRATION OF GROUP CARE OF YOUNG CHILDREN (3) Price

The organization and administration of nursery school. (Not offered in 1959-60.)

- 379a, b. GUIDANCE OF NURSERY SCHOOL CHILDREN (2 to 6) Nehls, Price
 a. Teaching and Guidance in the Nursery School. (4 hrs.)
 b. Techniques in Child Feeding. (2 hrs.)
 Teaching and guidance in the Nursery School with participation in all phases of the Nursery School program. Prereq., permission.
- 477a, b. SPECIAL STUDIES IN FAMILY RELATIONSHIPS OR CHILD DEVELOPMENT (2 to 6) Nehls
 a. Family Relationships. (2 or 3 hrs.)
 b. Child Development. (2 or 3 hrs.)
 An intensive study of a problem in family relationships or child development.

FOODS AND NUTRITION

320. CREATIVE COOKERY AND MEAL MANAGEMENT (2 to 4) Roberts
 (Summer sessions only)
 An advanced course emphasizing the creative, scientific, and artistic phases of food preparation and meal management. Prereq., permission.
322. EXPERIMENTAL COOKERY (3) Lewis
 Group and individual experiments on selected problems of food preparation. 1 lec., 4 lab. Prereq., Organic Chemistry. (Not offered 1959-60.)
323. FOOD PRESERVATION (2) Lewis
 Methods of home food preservation and factors affecting palatability and retention of nutrients in processed food. 1 lec., and 2 lab. (Not offered 1958-59.)
326. ADVANCED NUTRITION (3) Lowe, Roberts
 Principles of nutrition as applied to the feeding of individuals and families under varying conditions. 2 lec., 2 lab.
328. RECENT DEVELOPMENTS IN FOODS AND NUTRITION (3) Roberts
 (Summer sessions only)
 Reports, discussions, and reviews of scientific literature. Some laboratory projects may be included.
329. NUTRITION IN DISEASE (2) Macauley, Lowe
 Application of principles of nutrition to the feeding of individuals and the use of diet in prevention and treatment of disease. Problems in planning and preparing therapeutic diets. 1 lec., 3 lab. Prereq., 326.
340. PROBLEMS IN FOODS AND NUTRITION (2 or 3) Macauley, Lewis, Lowe
 A comprehensive study of nutrition, experimental foods, food or nutrition analysis, or institution management. Maximum credit in course, 6 hrs. Prereq., permission.
433. SPECIAL PROBLEMS IN CHEMISTRY OF FOODS AND NUTRITION (2 or 3) Lewis
 An intensive study of a phase of food chemistry or nutrition. Maximum credit in course, 6 hrs. Prereq., 326.

HOME ECONOMICS EDUCATION

350. PROBLEMS IN TEACHING OF HOME ECONOMICS (1 to 3) Sellers
 Opportunity for individual selection of problems. Maximum credit in course, 6 hrs. Prereq., permission.

367. VOCATIONAL HOME ECONOMICS (Summer sessions only) (3) Sellers
History and philosophy of vocational homemaking education. Contemporary trends, methods, sources of materials, and evaluation. Observations arranged. Prereq., permission.
368. DEMONSTRATION TECHNIQUES (2) Lewis
Practical experience in the demonstration of foods, equipment, or clothing. Planned for those going into secondary education or consumer service positions, 4 lab.
369. HOME ECONOMICS IN ADULT EDUCATION (3) Sellers
Organization procedures, curriculum materials, and methods of conducting adult education groups in the field of education for family living.
450. SPECIAL PROBLEMS IN TEACHING OF HOME ECONOMICS (2 or 3) Sellers
Intensive study of some phase of home economics education. Maximum credit in course, 6 hrs. Prereq., teaching experience in home economics.

HOUSING AND HOME MANAGEMENT

330. WORKSHOP IN HOME FURNISHINGS (3) Makroczy
Laboratory problems in advanced techniques in home furnishings, including upholstering, slip-covering, refinishing furniture, and making draperies. 1 lec., 4 lab.
331. ECONOMICS OF FURNISHINGS (2) Cowan
A study of the production, distribution, and qualities of furnishings. Problems on china, glass, silver, furniture, bedding, rugs, etc. Prereq., 330; for non-majors, 6 hrs. of economics.
334. HOUSEHOLD EQUIPMENT (3) Macauley
Household operating and equipment problems. A critical analysis of the use of equipment to establish standards for effective use. 1 lec., 4 lab.
351. HOME MANAGEMENT (2) Rogers
Economic use of time, energy, and money in the successful functioning of the home from the viewpoint of the satisfaction of members of the family.
353. HOME MANAGEMENT LABORATORY (3) Rogers
Residence in the home management house for half a semester provides experience in the use of human and material resources of the family for the optimum development of its members. A charge is made to cover room and board. Prereq., 351 or with 351, and permission.
358. PROBLEMS IN FAMILY ECONOMICS (1 to 3) Makroczy
Individual investigation of family income, expenditures, and standards of living. Minimum standards of living are emphasized. Planned for majors in social work. Prereq., 351.
452. SPECIAL PROBLEMS IN HOUSEHOLD EQUIPMENT AND HOME MANAGEMENT (2 or 3) Macauley, Makroczy
An intensive study of the efficient management of time, energy, or money in the home. Maximum credit in course, 6 hrs. Prereq., 334, 351 and 353.

INSTITUTION ADMINISTRATION

327. QUANTITY COOKERY (3) Macauley
Preparation and serving of foods in large quantities. Use of modern equipment. Laboratory practice in the cafeteria and residence halls of Ohio University.
342. INSTITUTION MARKETING AND FOOD COST CONTROL (2) Macauley
Studies in production, distribution and storage of food supplies to serve as a basis for the purchase of such commodities for quantity use. Record keeping involved in food service. 1 lec., 3 lab. Prereq., 327.
343. INSTITUTION EQUIPMENT AND FURNISHINGS (2) Macauley
Kitchen planning and selection of equipment including materials, construction, installation, operation, care, and relative cost; floor plans and specifications. 1 lec., 3 lab. Prereq., 327.
348. INSTITUTION MANAGEMENT (3) Macauley
Principles of organization and administration which apply to food units in school lunch rooms, and public and private institutions. Administration of labor; standards of work; cost control. Prereq., 327.

TEXTILES AND CLOTHING

300. NEW DEVELOPMENTS IN TEXTILES (Summer sessions only) (2) Cowan
New developments in textile fibers with special emphasis on new fibers, their characteristics, uses and care.
301. TECHNIQUES IN TEACHING CLOTHING CONSTRUCTION (3) Bane
(Summer sessions only)
Special problems in sizing, alteration, fitting and construction as applied to teaching the high school student. Prereq., 316 or equivalent, teaching experience or certification to teach home economics.
302. TECHNIQUES IN TEACHING CLOTHING SELECTION (1) Bane
(Summer sessions only)
Methods of presenting clothing selection on the high school level with emphasis on psychological and economic aspects of clothing. Consumer and market trends to be included. Prereq., 316 or equivalent, teaching experience or certification to teach home economics.
310. TECHNIQUES IN CLOTHING DESIGN (Summer sessions only) (2) Bane
An advanced course in clothing that offers opportunity for creative expression and for an understanding of patterns through the medium of flat pattern design.
313. CLOTHING AND TEXTILES FOR THE CONSUMER (2) Cowan
Problems presented to the buyer and the consumer in purchasing textile products such as lingerie, home-furnishing fabrics, ready-to-wear, and accessories. (Not offered 1958-59.)
315. HISTORY OF COSTUME AND TEXTILES (2) Cowan
Study of costume and textiles through the ages as a basis for the understanding and appreciation of present-day costumes. (Not offered 1959-1960.)
316. TAILORING (3) Bane
Tailoring of suits or coats. Emphasis placed on professional techniques, advanced fitting problems, and construction of high fashion garments. 6 lab. and demonstration.

318. ADVANCED TEXTILES (3) Cowan

Physical and chemical examination of fibers and fabrics. Problems in the comparison and evaluation of fabrics. 1 lec., 4 lab.

319a, b. SPECIAL STUDIES IN TEXTILES OR CLOTHING (3 to 6) Bane, Cowan

Intensive study of one or more problems related to textiles or clothing. Maximum credit in each area, 6 hrs.; total in course, 12 hrs. Pre-req., permission.

a. Clothing. (3 hrs.)

b. Textiles. (3 hrs.)

HUMAN RELATIONS

Professors A. C. Anderson, Patrick
Associate Professor B. R. Black (chairman)

Students who desire to major in human relations will be accepted on the basis of an interview with the graduate committee of the department.

The undergraduate preparation of the student should consist of not fewer than 18 hours in social sciences and specific preparation in the appropriate field or area of interest in human relations. In rare and unusual cases the graduate committee of the department may accept other training and experience in lieu of some of the above requirements.

A major in human relations leading to either the Master of Arts or the Master of Science degree shall consist of a minimum of 16 hours in courses approved by the graduate committee of the department, including 303 and 304 if the student has not taken these courses on the undergraduate level.

For a minor in human relations, the student is required to have the prerequisites for each course approved for the minor program.

301. MARRIAGE (3) Patrick and Associates Eggers, McQuate, Organ, Schmidt, Rowles

A clinical approach to the problems of dating, courtship, marriage, parenthood, and childhood adjustments in the light of scientific and philosophical thinking of today. (2nd sem., yearly.)

303-304. HUMAN RELATIONS (3-3) Anderson, Black

A course taught by the case method, designed for students interested in studying the habits and skills of analysis, judgments, and action important to people in all walks of life. (303, each sem.; 304, 2nd sem. yearly.)

325. FIELD WORK OR RESEARCH (1 to 3) Staff

An opportunity for individual work in a specialized area of human relations; field work in human relations; or supervised work for a specified time in the offices of admissions, registrar, O.U. Center, housing, and University College; or research under the direction of the staff. Maximum credit in course, 5 hrs. Prereq., 303 and permission. (Each semester.)

491. SEMINAR IN HUMAN RELATIONS (3) Staff

Prereq., 303 or 304 and permission. (1st sem., yearly.)

493, 494. SEMINAR IN STUDENT PERSONNEL ADMINISTRATION (3, 3) Black

Designed for those specializing in student personnel work. Emphasis on philosophy and current trends in student personnel work and administrative procedures for effective coordination of services within a student personnel program. Prereq., permission. (Yearly.)

495. THESIS (1 to 6) Staff

Prereq., permission.

INDUSTRIAL ARTS

Associate Professors Kinison, Paige,
Perry (chairman)
Assistant Professor Calvin
Instructor Weber

A student electing a graduate major in industrial arts shall have completed an undergraduated minor of 24 hours in industrial arts or its equivalent as determined by the graduate committee of the Industrial Arts Department.

To begin a graduate minor in industrial arts, the student will be expected to have a minimum of 9 hours of approved work.

302. DEVELOPMENT OF TEACHING AIDS FOR INDUSTRIAL EDUCATION

(2) Weber

Emphasis is on analysis of teaching situations to determine which can be enhanced through the use of teaching aids. Laboratory activity consists of development and construction of instructional aids designed for specific purposes. A term paper is required. 4 lab. Prereq., teaching experience.

309. ADMINISTRATION OF THE GENERAL SHOP

(3) Paige

Supervision and administration as related to the general shop. Types of organization, laboratory planning, equipment selection, tool storage, and accounting systems are topics studied.

326. HISTORY OF INDUSTRIAL AND VOCATIONAL ARTS

(3) Calvin

A study of the history of industrial arts from its earliest beginnings down to the present, including the Smith-Hughes Law and the George-Deen Act and their administration in Ohio.

328. SPECIAL PROBLEMS IN INDUSTRIAL ARTS

(1 to 3) Staff

A research course where individual problems are selected for investigation, solution, and reporting. Maximum credit in course, 3 hrs.

399. WORKSHOP IN DRIVER EDUCATION (Summer sessions only)

(1) Perry

A course designed for teachers of driver education. Class activity will be guided by problems found in present programs. Emphasis will be placed on improvement of time utilization and student motivation. Prereq., certification in driver education.

450a, b, c, d. ADVANCED WORK IN WOOD, METAL, PRINTING OR POWER

(2) Staff

Advanced laboratory work in the wood, metal, printing, or power areas along with a study of the industrial practices in the field selected. The course may be repeated in different areas for a maximum credit of 6 hours. 4 lab.

457. CURRICULUM BUILDING IN INDUSTRIAL ARTS

(3) Staff

A study of the building of a complete industrial arts curriculum and of the construction of the several courses that make up the curriculum.

471. ADMINISTRATION AND SUPERVISION OF INDUSTRIAL EDUCATION

(3) Staff

This course is a study of the philosophy of industrial education, of the Federal Laws pertaining to vocational education, and of the problems and practices of administration and supervision of vocational and nonvocational industrial education in the public schools. Prereq., permission.

481. RESEARCH IN INDUSTRIAL ARTS (1 to 3) Staff

Students are directed in the investigation of selected phases of the theory and practice of industrial education. A written report of this investigation is to be presented by each student to the departmental graduate committee.

491. SEMINAR IN INDUSTRIAL ARTS EDUCATION (1 to 3) Staff

Reports on recent books and magazine articles and reports based upon original research will be given and followed by group discussion and criticism. Maximum credit in course, 6 hrs.

495. THESIS (1 to 6) Staff

Prereq., permission.

ITALIAN—See Romance Languages**JOURNALISM**

Professor Hortin (director)

Associate Professors Turnbull, Baird, Humphreys

Assistant Professor Baxter

The School of Journalism offers graduate work in all its five sequences: (1) News Writing and Editing, (2) Advertising-Management, (3) Magazine Journalism, (4) Public Relations, (5) and Radio-Television News.

To begin a graduate major, a student should have a minimum of 12 hours of basic journalism courses and 6 additional hours of approved work in journalism or related fields.

To begin a graduate minor in journalism, courses prescribed as prerequisites, or approved equivalents are required. These prerequisites usually total 6 to 12 hours.

303. TELEVISION NEWS PRODUCTION (3) Baxter

The preparation and production of television news. Experiments in visual presentation of news and discussion of the organization and policies of the television newsroom. Prereq., permission.

306. NEWSPAPER AND COMMUNICATIONS LAW (2) Hortin

Principles and case studies of the law of the press with emphasis on constitutional guarantees, libel, contempt, privacy, copyright, privilege, and administrative controls. Some consideration of regulations pertaining to radio and television.

307. REPORTING OF PUBLIC AFFAIRS (2) Baird, Hortin

Includes a study of governmental, civic, and business organizations: courts, legal procedure, city and county government, state and national organizations, banks, political parties, and community activities.

309. RADIO-TV ADVERTISING AND MANAGEMENT (3) Turnbull

A study of the business principles and practices in the broadcasting industry, dealing with problems in radio and TV station operation, with major emphasis on time sales.

322. FEATURE AND MAGAZINE WRITING (3) Baird, Hortin

A study of newspaper, magazine, and pictorial features, followed by practice in writing and marketing of various types. The course includes finding subjects, securing photographs, writing articles, and surveying markets. Prereq., permission.

323. **ADVANCED FEATURE AND MAGAZINE WRITING** (2) Baird, Hortin
 Students are permitted wide range in selecting feature subjects. High-grade writing is stressed with definite idea of publication. Prereq., 322.
325. **THE EDITORIAL PAGE** (2) Humphreys
 A study of the editorial page as to purpose, style, and effect. Training is given in writing interpretative news articles, columns, and all types of editorials. Prereq., permission.
327. **PUBLIC RELATIONS TECHNIQUES** (3) Hortin, Staff
 Study and practice of fundamental public relations functions. Emphasis is placed on polling, publicity writing, and preparation of literature of business organizations—house organs, reports, pamphlets, advertisements, leaflets, manuals, and letters, Prereq., permission.
328. **PUBLIC RELATIONS** (3) Hortin, Staff
 A study of advanced public relations problems, policies, and practices of various institutions and organizations in modern society. Attention is focused on public relations program development. Prereq., 327 or permission.
329. **BUSINESS AND MAGAZINE JOURNALISM** (2) Baird
 Study of industrial, business, and institutional publications. Analysis of contents, purposes, and readership of such publications. Practice in copy preparation and make-up. Staff, costs, printing, and circulation are considered.
343. **NEWSPAPER MANAGEMENT** (2) Turnbull
 A study of the problems and economics of publishing. Consideration is given to policy making as it affects all departments of the newspaper plant.
348. **ADVERTISING PRODUCTION** (2) Turnbull
 Study of mechanical, graphic, and creative methods of advertising production; comparative analysis of printing processes; relation of color, art work, type, media, and quality of paper to advertising purpose; study of cost and controls. Prereq., Advt. 332 or permission.
370. **INTERNSHIP** (3) Staff
 A conference course open only to students who have completed their internship work with an approved organization. Students will submit a comprehensive report involving analysis and problems encountered during the summer training. Prereq., permission.
375. **SPECIALIZED JOURNALISM** (3) Baird, Staff
 A course designed for students desiring training in special fields—science, sports, society, politics, military, home economics, agriculture, religious activities, teaching journalism, music, and other approved areas. Prereq., permission.
376. **GRAPHIC PRODUCTION PROCESSES** (3) Turnbull, Staff
 Advanced study of all processes for reproducing the printed word and pictures, including photoengraving, lithography, letterpress, rotogravure, mimeographing, and duplicating. Emphasis is placed on developing a thorough understanding of the latest developments in each field as they affect editing, advertising, public relations, and television news. Includes theory and laboratory work in preparation of written and photographic copy for each process. Prereq., permission.

381. RESEARCH IN JOURNALISM (1 to 8) Staff
Special studies in one or more phases of journalism. Prereq., permission.
403. SEMINAR IN MASS COMMUNICATIONS (2) Staff
Methods of research in mass communications; the selection, planning, and evaluation of research problems. Study of thesis writing and selection of a thesis problem. Survey of outstanding books and periodical literature in mass communications. Prereq., permission.
495. THESIS (1 to 6) Staff
Prereq., permission.

LATIN—See Classical Languages

MANAGEMENT

Professor Hellebrandt (chairman)
Associate Professor Spivey

To begin a major in the field of management a student should have at least 30 hours in economics and/or commerce, including the basic courses, Industrial Management, Principles of Economics, Elementary Accounting, and Statistics.

To begin a minor in management the student must have completed Principles of Economics.

301-302. PRODUCTION MANAGEMENT (3) Hellebrandt

An introduction to the more important production procedures and techniques commonly used by progressive manufacturing plants. Deals with methods of supervision used at the lower levels of management in the production field more than with the problems of policy formulation which confront the factory manager. Case and semi-laboratory method used.

302 covers practical training in the more important types of problems encountered by executives at the level of the executive factory manager. The main objective is to develop the ability to analyze and solve problems in management control of production and in the formulation of production policies. Case method used. Prereq., 301 or permission.

308. PRODUCTION PLANNING AND CONTROL (2) Hellebrandt

Study of forecasting, planning, authorizing, scheduling, dispatching, and controlling flow of industrial production, from receipt of customer's order to shipment of finished goods.

312. ADMINISTRATION OF PERSONNEL (3) Staff

A comprehensive survey in the principles of management of people in business organizations and institutions. Among the subjects treated are employee selection, training and rating; labor turnover; job analysis; wage and salary administration.

314. PERSONNEL MANAGEMENT PROBLEMS (3) Staff

A detailed study of personnel problems and their relation to various personnel management principles dealing with such subjects as induction and training, transfers and promotions, and morale. Case method used. Prereq., 312 or permission.

321. MOTION AND TIME STUDY (2 or 3 as scheduled) Hellebrandt

Methods work, work simplification and time study as tools of management to develop methods of determining operating standards, production control, and wage rate determination. Prereq., 301 or permission.

325. **INDUSTRIAL RELATIONS** (2 or 3 as scheduled) Hellebrandt
Objectives, establishment and procedures of collective bargaining; administration of collective bargaining agreements; labor-management cooperation; the methods of conciliation, mediation, and arbitration of disputes. Taught by case method.
332. **WAGE AND SALARY ADMINISTRATION** (2 or 3 as scheduled) McLean
The factors determining industrial wage and salary policies, methods of employee payments, wage relationships, wage rate setting, incentive wage plans. The techniques and methods of implementing wage and salary policies. Prereq., 302 or 312.
345. **ADVANCED PRODUCTION PROBLEMS** (2 or 3 as scheduled) Hellebrandt
Case studies of production problems in a number of different industries, designed to apply to all phases of the student's training and experience. Prereq., 302 or permission.
381. **RESEARCH IN MANAGEMENT** (1 to 8) Staff
Special studies in industrial organization and scientific management. Prereq., 301 or 312, and permission.
391. **SEMINAR IN MANAGEMENT** (2 to 4) Staff
Maximum credit in course, 10 hrs. Prereq., permission.
495. **THESIS** (1 to 6) Staff
Prereq., permission.
Additional courses: Ec. 335—Labor Economics, Ec. 338—Labor Legislation, Stat. 341—Business Cycles, Stat. 345—Forecasting.

MARKETING-ADVERTISING

In order to begin a graduate major or minor in marketing-advertising the student should have at least 30 hours in commerce and/or economics, including Principles of Economics, Marketing Principles, and Advertising Principles.

MARKETING

Professor Krauskopf
Associate Professors Paynter (chairman), Raymond
Assistant Professor Richmond

301. **RETAIL SELLING POLICIES** (3) Paynter
The organization and operation of retail institutions.
302. **RETAIL BUYING AND STOCK CONTROL** (3) Paynter
A study of buying, receiving, and stock control practices in retail stores. Prereq., 301.
311. **RECENT TRENDS IN MARKETING AND SELLING** (3) Krauskopf, Paynter
326. **INDUSTRIAL PURCHASING AND INDUSTRIAL MARKETING** (3) Paynter
The purchasing and selling of industrial goods.
341. **FOREIGN TRADE** (3) Paynter
A study of the theories of foreign trade and of the problems met by concerns engaged in importing and exporting.
346. **FOREIGN MARKETS** (2) Paynter
A study of foreign markets from the point of view of the American exporter.

352. PROBLEMS IN SALES MANAGEMENT (2) Raymond
 Problems of sales administration and selling policies by the case method. Prereq., permission.
381. RESEARCH IN MARKETING (1 to 8) Staff
 Research methods, market data, and methods of conducting market surveys. Prereq., permission.
391. SEMINAR IN MARKETING (2 to 4) Staff
 Maximum of credit in course, 10 hrs. Prereq., permission.
495. THESIS (1 to 6) Staff
 Prereq., permission.

ADVERTISING

Professor Krauskopf
 Associate Professors Paynter (chairman), Turnbull, Raymond
 Assistant Professor Richmond

332. COPY WRITING (2) Turnbull
 The elementary essentials of copy developed by the study of current theory and analysis of tested examples. Considerable constructive work is required.
376. ADVERTISING PROBLEMS (3) Krauskopf, Richmond
 Emphasizes administrative problems and the coordination of advertising with other marketing activities.
381. RESEARCH IN ADVERTISING (1 to 8) Staff
 Prereq., permission.
391. SEMINAR IN ADVERTISING (2 to 4) Staff
 Maximum credit in course, 10 hrs. Prereq., permission.
495. THESIS (1 to 6) Staff
 Prereq., permission.
- Additional courses:
 Jour. 309—Radio-TV Advertising and Management
 Jour. 327—Public Relations Techniques
 Jour. 328—Public Relations
 Jour. 348—Advertising Production

MATHEMATICS

Professors Marquis, Denbow, Goedicke
 Associate Professors Butner (chairman), Fishback, Jasper
 Assistant Professors Spring, W. E. Baxter, Hood, Sexauer

A student may begin a graduate major with 21 hours of mathematics, including Analytic Geometry and Calculus, and the equivalent of at least one 300 level course.

To begin a minor, a student will be expected to have completed 18 hours of mathematics, including Analytic Geometry and Calculus.

301. THEORY OF EQUATIONS (3) Jasper, Spring
 The roots of unity, roots of an equation, isolation of real roots, numerical solutions, determinants and matrices, systems of linear equations, and symmetric functions. (1st sem., yearly.)

303. NUMERICAL ANALYSIS (3) Goedicke, Spring
An investigation of numerical methods for approximate solution of applied problems. Topics will include interpolation theory, curve fitting, approximate integration, and the numerical solution of different equations. (1st sem., 1958-59.) Prereq., 315.
- 304, 305. ADVANCED CALCULUS (3) Fishback, Jasper
Critical treatment of certain topics in calculus. Limits, continuity, differentiation of functions of one and several variables, series, and definite and multiple integrals, line integrals. (Yearly.)
308. PROJECTIVE GEOMETRY (3) Fishback, Marquis
Elements, primitive forms, duality, projectively related forms, curves and ruled surfaces of the second order, Pascal's and Brianchon's theorems, poles and polars, and the theory of involution. (2nd sem., 1958-59.)
315. ADVANCED APPLIED MATHEMATICS I (3) Staff
An introductory treatment of elementary and series solutions of differential equations, partial differential equations and boundary value problems, fourier series. (Each semester.)
316. ADVANCED APPLIED MATHEMATICS II (3) Staff
An introductory treatment of matrices, vector analysis, complex variables, and laplace transforms. Prereq., 315. (2nd sem., yearly.)
318. VECTOR ANALYSIS (3) Butner, Goedicke
Algebra of vectors, differential and integral vector calculus, vector spaces, and introductory tensor analysis. (1st sem., 1959-60.)
319. MATRIX THEORY (3) Butner, Denbow
Linear transformations; matrices over a field; canonical forms and invariants. Prereq., 301 or permission. (2nd sem., 1959-60.)
326. THEORY OF STATISTICS (3) Butner, Goedicke
Basic concepts of statistics treated theoretically. Distributions of one and several variables, sampling theory, correlation, analysis of variance, testing of statistical hypothesis. (2nd sem., 1959-60.)
340. STUDIES IN MATHEMATICS (3) Staff
Selected topics in mathematics are studied under the guidance of an instructor particularly interested in the field. Maximum credit in course, 6 hrs.
- 351-352. THEORY OF FUNCTIONS OF A COMPLEX VARIABLE (3-3) Marquis, Jasper
Prereq., 304 for 351; 351 for 352. (1958-59.)
356. THEORY OF FUNCTIONS OF REAL VARIABLES (3) Denbow, Hood
A critical study, from a modern point of view, of topics in real variable theory. Prereq., 304. (2nd sem., 1959-60.)
399. SEMINAR IN COMPUTING (1) Staff
Topics in programming and theory of digital computing machines.
495. THESIS (1 to 6) Staff
Prereq., permission.

MECHANICAL ENGINEERING—See Engineering

MUSIC

Professors Ingerham, Ahrendt (director)
 Visiting Professor Keleti
 Associate Professors Fontaine, P. Peterson, Stephenson
 Assistant Professors Kresge, Longstreet, Roach,
 Thackrey, Morley, Witzler, Merritt, Minelli,
 Jennings, Brophy, Hall, Conkling, Bergsagel
 Instructors Szaroleta, R. D. Smith
 Lecturer Sears

To major in music an applicant for admission is required to have finished successfully a four-year undergraduate curriculum in music from an institution which holds membership in the National Association of Schools of Music, or from any other accredited institution offering undergraduate music degrees equivalent in hours and content. In addition, he must demonstrate ability to carry graduate work in the major field or, if deficient, take further undergraduate preparation. This will be determined by examination to be held during registration week, the results of which will be used to designate the program of study. In cases where the undergraduate preparation is not in the area planned for graduate study, the student must demonstrate a level of achievement fully equivalent to that provided by the bachelor's degree in the field concerned.

All graduate programs are based upon completion of a minimum of 32 hours of work beyond the bachelor's degree. All programs are divided into a major and minor area. A student wishing to do graduate work in composition or music literature is required to take a minimum of 16 hours in the major area. A thesis is required in music literature and an original composition in a large form for the composition major. In applied music the major may be 16 hours of applied music including 4 hours for the graduate recital in lieu of a thesis. The minor field may include any of the other areas offered in the School of Music. Music education majors take from 20-24 hours in their major area, including 4 hours for thesis. In exceptional cases a student majoring in music education may be permitted to present a graduate recital in lieu of a thesis. The minor in music education may include from 8-12 hours in another area of music, or in education. Music therapy majors are required to earn 12 hours in music therapy, 12 hours in psychology, and 8 hours may be selected from graduate courses in music.

APPLIED MUSIC

Private instructional fee for all applied music (piano, voice, organ, strings, woodwind, brass, percussion), \$20 a semester hour.

(Note: A description of the proficiency requirements for applied music may be secured from the School of Music.)

331-332. PIANO ENSEMBLE

(1-1) Staff

Participation in the playing of original works or arrangements for two pianos. Prereq., permission.

375. ADVANCED CONDUCTING

(1 to 4) Staff

An opportunity for study and practical experience in either choral or instrumental conducting. Maximum credit in course, 6 hrs. Prereq., permission.

431. VOICE

(1 to 4) Merritt, Peterson, Roach

Maximum credit in course, 16 hrs. Prereq., permission.

443. PIANO

(1 to 4) Fontaine, Szaroleta, Jennings, Longstreet

Maximum credit in course, 16 hrs. Prereq., permission.

435. ENSEMBLE (1 to 4) Staff
Maximum credit in course, 16 hrs. Prereq., permission.
437. STRINGED INSTRUMENTS (1 to 4) Ingerham, Conkling
Maximum credit in course, 16 hrs. Prereq., permission.
439. WOODWIND INSTRUMENTS (1 to 4) Witzler
Maximum credit in course, 16 hrs. Prereq., permission.
441. BRASS INSTRUMENTS (1 to 4) Brophy, Smith
Maximum credit in course, 16 hrs. Prereq., permission.
443. PERCUSSION INSTRUMENTS (1 or 2) Minelli
Maximum credit in course, 8 hrs. Prereq., permission.
495. RECITAL (1 to 4) Staff
A full-length public recital, a recording of which will be filed in the library, in lieu of thesis. Prereq., permission. Fee charged by Radio Department based on length and type of program.

MUSIC HISTORY AND LITERATURE

337. THE LITERATURE OF VOCAL MUSIC (2) Peterson
Representative literature from the fields of oratorio, choral music, and the art song.
338. THE LITERATURE OF ORCHESTRAL MUSIC (2) Ingerham
Orchestral literature from the classic through the contemporary.
339. THE EVOLUTION OF THE OPERA (2) Bergsagel
340. THE LITERATURE OF PIANO MUSIC (2) Fontaine
The development of the instrument, the primary forms adapted to it, and the representative composers.
- 401-402. MUSIC LITERATURE (3-3) Bergsagel
Prereq., permission.
495. THESIS (1 to 6) Staff
Prereq., permission.

THEORY AND COMPOSITION

- 307-308. ARRANGING AND SCORING FOR BANDS (2-2) Minelli
Scoring and arranging for the modern marching and symphonic band.
- 313-314. ORCHESTRATION (2-2) Ahrendt
Scoring for small, medium, and full orchestra.
- 315-316. ADVANCED HARMONY (2-2) Kresge
The evolution of harmony to the present, including the new methods of chord structure in modern harmony.
- 317-318. COUNTERPOINT (2-2) Fontaine
Single counterpoint in all species in two, three, or four parts. Development of motive, double counterpoint, free writing on original themes.
- 319-320. COMPOSITION (2-2) Ahrendt
Original writing in the smaller forms.

- 357-358. COUNTERPOINT (2-2) Fontaine
Double and triple counterpoint with and without free parts. Special attention is given to the *Inventions* and *Partitas* of Bach. Prereq., 318.
- 371-372. COMPOSITION (2-2) Ahrendt
Original writing in the larger forms. Prereq., 320.
384. RESEARCH IN MUSIC (1 to 4) Staff
Prereq., permission.
403. SEMINAR IN MUSIC (1) Staff
Reports on research by students or faculty, for discussion. Required of all graduate students enrolled in the School of Music. (Yearly.) Maximum credit, 2 hrs. Prereq., permission.
- 407-408. EVOLUTION OF HARMONIC THEORY (2-2) Bergsagel, Hall
A study of the writings of the most important music theorists from the 10th century to the present. Prereq., 313-314, 315-316.
- 409-410. CANON AND FUGUE (2-2) Fontaine
A critical study of the classic canon in all its forms. Complete familiarity with the *Well-Tempered Clavichord* is expected. A fully-developed original fugue in four voices is necessary for credit. Prereq., 358 and permission.
- 425-426. COMPOSITION (2-2) Ahrendt
Extensive writing in the larger vocal and instrumental forms. Prereq., 372.
- 427-428. ADVANCED ORCHESTRATION (2-2) Ahrendt
Problems in scoring original works for the modern symphony orchestra. Satisfactory scores are performed by the University Symphony Orchestra. Prereq., 314 and 318.
429. SIXTEENTH CENTURY COUNTERPOINT (2) Fontaine
The techniques of the period, particularly as evidenced in the works of Palestrina and Lassus. Original writing in the sixteenth century modal style. Prereq., 318 and permission.
495. THESIS (1 to 6) Staff
Prereq., permission.

MUSIC EDUCATION

- 376a, b, c, d. MUSIC WORKSHOP (1 to 4) Staff
Maximum credit in course, 6 hrs.
a. Music Clinic-Workshop (Summer only.)
b. Opera Workshop (Summer only).
c. Elementary Music Workshop (Summer only).
d. Elementary Music Workshop (Extension only.)
470. CONTEMPORARY TRENDS IN MUSIC EDUCATION (2) Stephenson
Prereq., permission.
471. PROBLEMS IN THE SUPERVISION OF VOCAL MUSIC (2) Morley
2 lec., lab. as required.
472. PROBLEMS IN THE SUPERVISION OF INSTRUMENTAL MUSIC (3) Minelli
2 lec., lab. as required.

473. EXPERIMENTAL STUDIES IN MUSIC (3) Stephenson
Important psychological investigations bearing upon musical composition, performance and appreciation. Prereq., permission.
495. THESIS (1 to 6) Staff
Prereq., permission.

MUSIC THERAPY

374. FOUNDATIONS OF MUSIC (2 to 4) Sears
A lecture-laboratory course applying pertinent findings from the fields of physics, acoustics, electronics, physiology, psychology, and sociology to music education and music therapy. 2 lec., 3 lab, and research problem. Prereq., permission.
377. BACKGROUND OF MUSIC THERAPY (3) Sears
The history of the use of music in mental hospitals and clinics; present trends; state and private hospital programs. Prereq., permission.
379. MUSIC THERAPY (2 to 9) Sears
A workshop course in methods, materials and procedures of conducting a music therapy program in hospitals and clinics. Prereq., 377 or permission.

PAINTING—See Art

PHILOSOPHY

Professor Organ (chairman)
Associate Professor Murphree
Assistant Professors Wieman, Grean, Hagensick
Instructor Sheridan

Only students who have received a 3.0 average in their undergraduate course in philosophy and a 2.5 average in other undergraduate courses will be admitted as majors in philosophy. Prerequisites for beginning a graduate major are 12 hours, including courses in Introduction to Philosophy, and Logic.

Prerequisites for beginning a graduate minor are 6 hours in philosophy courses, including Introduction to Philosophy.

302. AESTHETICS (3) Grean
The nature and function of art and aesthetic experience. Discussion of representative theories of beauty, the creative process, aesthetic appreciation, art and morality, and art and religion. Analysis of particular works of art will be used as illustrations. (2nd sem., yearly.)
304. CONTEMPORARY SOCIAL PHILOSOPHY (2) Murphree
Readings in modern social philosophy with attention to theories of action, mass movements, and politics. (2nd sem., 1959-60.)
305. THEORY OF KNOWLEDGE (3) Hagensick
A critical examination and appraisal of various twentieth century views of what knowledge is and how it is attained. (1st sem., 1959-60.)
306. PHILOSOPHY OF SCIENCE (3) Hagensick
An examination of philosophical problems associated with science. The character of scientific methods, the relationships between laws and theories are among the topics studied. (2nd sem., yearly.)

308. EASTERN PHILOSOPHY (2) Organ
An examination of selected philosophers and systems of philosophy of India and China. (2nd sem., 1958-59.)
310. PRAGMATISM (2) Murpree
The background of the pragmatic movement and its development as represented by Peirce, James, Dewey, and Schiller. (2nd sem., 1958-59.)
311. METAPHYSICS (2) Wieman
A survey of basic assumptions underlying different conceptions of the world, with special attention to materialism, formism, idealism, and contextualism. (1st sem., 1958-59.)
321. PLATO (2) Wieman
Reading of selected works of Plato in English translation. (1st sem., 1959-60.)
322. ARISTOTLE (2) Organ
Reading of selected works of Aristotle in English translation. (2nd sem., 1959-60.)
331. CONTINENTAL IDEALISM (2) Sheridan
Reading and discussion of selections from Kant, Hegel, Schopenhauer, and Cassirer. This course will present the idealist view of the nature of knowledge, the nature of man, and the problem of value. (1st sem., 1958-59.)
333. EXISTENTIALISM (2) Sheridan
A critical examination of existentialism with emphasis on Sarte, Marcel, Jaspers, and Heidegger. This movement will be treated as a philosophic discipline and in relation to trends in modern life. (1st sem., 1959-60.)
341. SYMBOLIC LOGIC (2) Hagensick
The study and use of symbolic methods and techniques for considering logical problems. Special attention is given to the relations between symbolic logic and our natural and technical languages. (1st sem., 1958-59.)
391. SEMINAR IN PHILOSOPHY (1 to 3) Staff
Especially assigned problems are treated or the writings of important philosophers are read and critically examined. Maximum credit in course, 6 hrs., Prereq., 15 hrs.
495. THESIS (1 to 4) Staff
Prereq., permission.

PHOTOGRAPHY

Lecturers White, Truxell, Allen

To begin a graduate major or minor in photography, a student must present at least 12 hours of undergraduate credit in photography and 6 hours in art.

- 379-380. COMMERCIAL AND ILLUSTRATIVE PHOTOGRAPHY (3-3) White
Studio and location work in commercial, advertising, industrial, and architectural photography. Introduction to problems of studio operation and free-lance photography. 1 lec., 4 lab. Prereq., permission.
381. PROBLEMS IN PHOTOGRAPHY (3) Staff
Individual study and practice in a specialized phase of photography under instructor supervision. Maximum credit in any one phase or combination of phases, 12 hrs. 6 lab. Prereq., permission.

- a. Individual selection of approved problems in photographic design, technique, or practice. 6 lab.
- b. Picture stories for publication and magazine free-lance photography. 1 lec. and 4 lab.
- c. 16 mm. motion picture production. 6 lab.
- d. Special problems in color photography. 6 lab. Prereq., 391.

391-392. COLOR PHOTOGRAPHY (5-5) White

Theory of color photography, practice with color transparency materials, direct separations, separations from transparencies, masking, and dye transfer printing. 1 lec., 8 lab. Prereq., permission.

481. RESEARCH IN PHOTOGRAPHY (1 to 4) Staff

Maximum credit in course, 8 hrs. Prereq., 381 and permission.

495. THESIS (1 to 6) Staff

Prereq., permission.

PHYSICAL EDUCATION AND ATHLETICS

Associate Professors Hatcher, Trepp, Nessley (assistant director), Rhoads, Widdoes (director)

A student wishing to begin a graduate major or minor in physical education will be expected to present a minimum of 24 hours of approved work in physical education, or equivalent work as approved by the Division of Physical Education and Athletics. The student is referred to the general statement on page 18.

304. HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION (3) Hatcher, Rhoads

Systems of physical education from the time of the Greeks and their effects on our present program; the principles underlying physical education in the modern program of education. Prereq., Anatomy, Kinesiology, and Physiology.

306. ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION (2) Miller, Nessley

Readings and discussions about typical methods of organizing and administering physical education, school and community health, recreation and athletics in elementary and secondary schools, private schools and colleges.

309. TESTS AND MEASUREMENTS (3) Miller, Nessley

Available tests and measurements for health education, physical education and athletics, their place, use and possibilities in the program; practice in handling testing data by elementary statistical methods.

349. COMMUNITY RECREATION (3) Nessley

For those interested in guiding leisure time programs. Topics include; brief history of the play movement, programs and program building, general administration of playgrounds, community centers, and recreational activities.

352. PHYSICAL DIAGNOSIS (3) Schmidt and Staff

A study of the fundamental deficiencies and defects characteristic of children that handicap normal physical, mental, and social development and the techniques in conducting health examinations and clinical service.

353. CLINICAL OBSERVATION AND PRACTICE IN PHYSICAL MEDICINE AND REHABILITATION (4) V. A. Hospital Staff

A concentrated summer school field course at Veterans' Administration Hospital, Chillicothe, Ohio. Instruction by hospital corrective therapy staff. May be taken alone or in conjunction with one or more courses on the campus at Athens. Prereq., Anatomy, Kinesiology, and Physiology.

395. SCHOOL HEALTH PROBLEMS (3) Trepp

A study of the principles, problems, organization and administration of school health programs, including school and community relationships.

396. PROBLEMS OF INTERSCHOOL ATHLETICS (3) Widdoes, Rhoads

The organization and administration of interschool athletics from the point of view of the coaches and administrators; the problems pertaining to interschool competition at all age levels.

491. SEMINAR IN PHYSICAL EDUCATION AND ATHLETICS

(3) Nessley, Miller, and Staff

For graduate students who wish to do research and investigation in health education, physical education, recreation or athletics. Topics and problems suitable for thesis writing, trends of the program, methods of research, writing practice and critical analysis of outlines for research study.

495. THESIS

(1 to 6) Staff

Prereq., permission.

PHYSICS

Professor Edwards

Associate Professors Pierce, Randall (chairman), T. Smith

Assistant Professor Gallaher

A graduate student majoring in physics is expected to have a minimum undergraduate preparation of 18 hours in physics. Mathematics courses through Integral Calculus are also required.

The minimum undergraduate preparation for a graduate minor is 8 hours of physics. Mathematics courses through differential equations are also required.

305. LIGHT (3) Randall

Laws of geometric optics, theory of interference, diffraction, polarimetry, electromagnetic waves, dispersion, double refraction and other selected topics. Experimental basis of concepts is emphasized. (2nd sem., 1958-59.)

308. X-RAYS (2) Gallaher

The history and development of the principles of X-rays in medicine, chemistry, and physics; production of continuous and characteristic X-ray spectra; detection, absorption, classical and quantum scattering, refraction and applications to crystallography. (1st sem., 1959-60.)

310. HEAT AND THERMODYNAMICS (3) Smith

Temperature, expansivity, calorimetry, specific heats, thermal conduction, thermal properties of gases, change of phase, first and second laws of thermodynamics. Carnot cycle, entropy, applications to physical processes. (2nd sem., 1959-60.)

314. MODERN SPECTROSCOPY (3) Randall

The structure of atoms, molecules, and nuclei as revealed by emission and absorption spectra, hyperfine structure, energy levels, electron configurations, and elementary quantum mechanics. (1st sem., yearly.)

325. MECHANICS LABORATORY (1 or 2) Pierce
Kater's pendulum, impact, moment of inertia, gyroscope, viscosity, bending of beams, coupled pendulums. (1st sem., 1959-60.)
326. HEAT LABORATORY (1 or 2) Pierce
Mechanical equivalent, heat of combustion, determination of gamma, conductivity, specific heat of carbon, absolute expansion of mercury, flame temperature. (1st sem., 1958-59.)
327. OPTICS LABORATORY (1 to 3) Randall
Dispersion, resolving power, Fresnel and Fraunhofer diffraction, Newton's rings, Michelson interferometer, grating, refractometer, polarimeter, measurement of wave length. Use of precision apparatus and accurate results emphasized. (1st sem., 1959-60.)
328. SPECTROSCOPY LABORATORY (1 to 3) Randall
Qualitative and quantitative analysis by emission and absorption methods in visible and ultraviolet regions, prism and grating spectrometers. Experimental techniques in calibration, sources, standards, mountings, spectrophotometry, photographic procedure. (2nd sem., yearly.)
329. ELECTRONICS AND ELECTRICAL MEASUREMENTS LABORATORY (1 to 4) Smith
Charge on the electron, specific charge of electron, thermionic emission, resonance potentials, discharge through gases, photoelectricity. Study of ballistic galvanometer, dielectric constants, magnetic hysteresis, transients. (1st sem., yearly.)
330. X-RAYS AND RADIOACTIVITY LABORATORY (1 to 3) Edwards
Crystal analysis X-ray spectral distribution, absorption coefficients and limits, Moseley's law, curved crystal spectrograph. Geiger counters, pulse heights and coincidence analysis. Radioactive decay and radiation study. (2nd sem., yearly.)
- 349-350. ATOMIC AND NUCLEAR PHYSICS (3-3) Edwards
Phys. 349, introduction to atomic physics; Phys. 350, introduction to nuclear physics. Intended for students in physics, chemistry, mathematics or engineering. Topics include elementary particles, quantum theory of radiation, nuclear energy and reactions. (Yearly.)
352. QUANTUM MECHANICS (3) Gallaher
The philosophy and methods of selected topics including Schroedinger's equation, simple barrier problems, eigenfunctions for the rigid rotator and the linear harmonic oscillator. Prereq., Math. 315. (2nd sem., 1959-60.)
361. SPECIAL PROBLEMS IN PHYSICS (1 to 3) Staff
Supervised minor research problems in experimental or theoretical physics. Prereq., permission.
365. NUCLEAR REACTOR THEORY AND PRACTICE (3) Randall
Nuclear physics and neutron theory used in reactors; declassified applications to reactor engineering practice, operation, design and materials. Intended for scientists and engineers interested in atomic energy. (1st sem., 1959-60.)
- 405-406. THEORETICAL PHYSICS (4-4) Gallaher
Advanced dynamics, Lagrange's equations, Hamilton's principle, canonical equations, Hamilton-Jacobi equations, statistical mechanics, Math. 315, and permission. (1958-59.)

410. HIGH ENERGY PARTICLES (3) Randall
Theoretical and experimental methods of current problems concerning photons, electrons, mesons, neutrons, protons and hyperons from cosmic rays and particle accelerators. (2nd sem., 1959-60.)
451. ELECTROMAGNETIC THEORY (3) Gallaher
Electro- and magneto-statics, Maxwell's equations, vector and scalar potentials, electromagnetic radiation, multipole radiation, retarded potentials, Huygen's principle, relativistic electrodynamics and selected topics. Prereq., 406. (1st sem., 1959-60 or on demand.)
461. STATISTICAL MECHANICS AND THERMODYNAMICS (3) Smith
Quantum theory. Maxwell-Boltzmann, Fermi-Dirac, and Bose-Einstein statistics. Development of partition function. Application of the general theories to selected topics in classical and quantum states of gases, chemical equilibrium, specific heats, fluctuations, transport phenomena, electric and magnetic properties of matter. Prereq., 310, 352, 405. (2nd sem., 1958-59 or on demand.)
481. RESEARCH IN PHYSICS (1 to 3) Staff
Maximum credit in course, 6 hrs. Prereq., permission.
- 491, 492. SEMINAR IN PHYSICS (1, 1) Gallaher
Selected topics. Required of all graduate students in physics each semester in residence.
495. THESIS (1 to 6) Staff
Prereq., permission.

PSYCHOLOGY

Professors Lehman, A. C. Anderson,
Patrick (chairman), Scott, Paulsen, Uhrbrock
Associate Professors Pullen, Klare
Assistant Professors Nygaard, Storm, Games, Johns

To begin a graduate major in psychology the student must present an undergraduate scholastic average of 3.0 (B) in the major field, or B level scores on the Graduate Record Examination or the Miller Analogies Test, with a minimum of 18 hours of psychology or equivalent work, as approved by the department.

To begin a graduate minor in psychology, a minimum of 8 hours in psychology is required.

Although the emphasis in the master's degree program is directed toward preparation for further study, specialization is afforded in the areas of experimental, clinical and personnel psychology, and for the position of school psychologist.

All graduate majors are expected to attend a monthly non-credit seminar.

301. ADVANCED EXPERIMENTAL PSYCHOLOGY (3) Blackwood, Klare
Nygaard
Research on a topic selected by the student. (2nd sem., 1959-60.)
303. MENTAL MEASUREMENTS (3) Games, Pullen
The theory, methods, practice and results of intelligence tests. 2 lec., 1 lab. Prereq., a course in statistics. (Each semester.)
307. COMPARATIVE AND GENETIC PSYCHOLOGY (3) Blackwood, Nygaard
Behavior of lower and higher organisms leading up to man is considered. A comparative-genetic-psycho-biological approach is maintained. 2 lec., 2 lab. Prereq., 9 hrs., or 6 hrs. and 6 hrs. of zoology. (1st sem., yearly.)

309. **MOTIVATION AND EMOTIONS** (3) Blackwood, Patrick
 The dynamics of animal and human behavior: a study of drives, desires, incentives; a study of emotion in relation to motives. Prereq., 9 hrs. (2nd sem., yearly.)
310. **MENTAL HYGIENE** (3) Patrick, Pullen
 The Dynamics of Behavior Pathology: The integration and application of motivational, emotional, perceptual, and learning principles to maladjustments, including psychoneurosis. Prereq., 9 hrs. (1st sem., yearly.)
312. **ABNORMAL PSYCHOLOGY** (3) Pullen, Scott
 Considers man's mental deviations from the normal; the theory, application, and limitations of psychoanalysis; methods of studying abnormal mental processes, especially psychosis. Clinics at hospitals. 2 lec., 1 lab. Prereq., 9 hrs. or 6 hrs. and 6 hrs. zoology. (2nd sem., yearly.)
313. **CURRENT PSYCHOLOGICAL LITERATURE** (3) Blackwood, Games Nygaard
 The purpose is to give students a critical evaluation of current experimental and theoretical findings in psychological journals and of related fields. Prereq., permission. (1st sem., yearly.)
315. **SOCIAL PSYCHOLOGY** (3) Paulsen, Storm
 A study of the behavior of man as influenced by group membership, with emphasis on the individual's interaction as a basis of change of motives, attitudes and personality. Prereq., 9 hrs. and soc. or 6 hrs. and 3 hrs. soc. (2nd sem., yearly.)
316. **PSYCHOLOGY OF INDIVIDUAL DIFFERENCES** (2) Bradshaw, Lehman
 The extent and the nature of individual differences, and the influence thereupon of such factors as heredity, environment, race, nationality, age, and sex. (1st sem., 1958-59.)
317. **EXPERIMENTAL SENSORY PSYCHOLOGY** (3) Staff
 A systematic study of sensory processes, including vision, audition, gustation, olfaction, and somesthesia. Experimental methods, research findings, and theory are emphasized. 2 lec., 2 lab. (1st sem., 1958-59.) Prereq., 15 hrs.
319. **PSYCHOLOGY OF PERSONALITY** (3) Pullen, Storm
 The nature of personality as revealed in interrelations to biological, psychological, and cultural concepts. (1st sem., yearly.)
320. **PERSONNEL AND VOCATIONAL COUNSELING** (3) Klare, Paulsen
 Methods and techniques useful in considering personnel and vocational problems to be met in industrial, commercial, and school work. Prereq., 9 hrs. including course in Employee Selection and Placement. (2nd sem., yearly.)
325. **MINOR PROBLEMS IN PSYCHOLOGY** (1 to 3) Staff
 Training in the scientific study of some problem of special interest to the student. Relatively independent work emphasized. Maximum credit in course, 6 hrs. Prereq., permission. (Each semester.)
335. **HISTORY OF PSYCHOLOGY** (2) Scott
 The evolution of methods and concepts of psychology with emphasis on more recent trends. (1st sem., yearly.)
337. **COUNSELING AND PSYCHOTHERAPY** (3) Patrick, Pullen
 Analysis of theory, evaluation, and practice in counseling and psychotherapy. (2nd sem., yearly.)

341. PSYCHOLOGY OF COMMUNICATION (3) Klare

A psychological approach to the process of communication, with applications to problems in the social sciences. Prereq., permission. (1st sem., yearly.)

351. SEMINAR IN PSYCHOLOGICAL PROBLEMS IN INDUSTRY (3) Uhrbrock

Consideration of problems of selection, placement, motivation, development and evaluation of employees; with emphasis on job analysis, interviewing, testing, rating and attitude evaluation as related to worker satisfaction, fatigue and productivity. Prereq., course in statistics and permission. (Each semester.)

353. LEARNING AND MEMORY (3) Anderson, Nygaard

A study of methods and basic data in the areas of conditioning, discrimination learning, problem solving, habit formation, and memory. 2 lec., 2 lab. (1st sem., yearly.)

401. SYSTEMS OF PSYCHOLOGY (3) Nygaard

A critical analysis and comparison of modern and contemporary psychological theory. Prereq., permission. (2nd sem., 1958-59.)

402. PERCEPTION (3) Klare, Storm

The psychological principles of perception involving the study of impersonal (time, space, motion) and personal (social) phenomena. (2nd sem., 1958-59.)

406. AN INTRODUCTION TO PSYCHODIAGNOSIS (3) Patrick, Pullen

A survey and practice of methods and techniques in diagnosing and evaluating personality disorders. Prereq., 303 and 310 or 312. (2nd sem., yearly.)

407. CLINICAL PSYCHOLOGY (3) Patrick, Pullen

The theory and use of clinical methods including interviewing, observation, case documentation, professional problems, and individual testing. Prereq., Psychology 337. (1st sem., 1959-60.)

419. THEORIES OF PERSONALITY (3) Storm

A critical consideration of the theories of personality structure and origin. Prereq., 315 and 319. (2nd sem., 1958-59.)

421. PRACTICUM IN PERSONNEL AND VOCATIONAL COUNSELING (3) Klare, Paulsen

A course designed to provide experience in personnel and vocational counseling. The work will include the handling of counseling cases, discussion of cases, and readings. Prereq., 320. (1st sem., 1959-60.)

423. RESEARCH METHODS AND TECHNIQUES (2) Klare, Paulsen

Study of research methods especially suited to handling problems in social sciences. Major emphasis is placed on the application and interpretation of statistical techniques. Maximum credit in course, 6 hrs. (1st sem., yearly.)

427. ADVANCED PERSONNEL PSYCHOLOGY (3) Klare, Paulsen

The integration of facts and theories from various areas of psychology as applied to personnel problems in education, business and industry. Prereq., 320. (2nd sem., 1958-59.)

432. ADVANCED SOCIAL PSYCHOLOGY (3) Staff

A summary of the main theoretical and substantive trends in contemporary social psychology, with emphasis upon the role of small group theory and research. Prereq., 315. (2nd sem., 1959-60.)

454. LEARNING THEORY (3) Anderson, Nygaard
Lectures and readings covering theoretical works in the field of learning. Prereq., 353. (2nd sem., 1958-59.)
471. QUANTITATIVE METHODS I (3) Games
General topics of measurements including psychophysics methods, scaling techniques, correlational and experimental design analyses. 2 lec. and 2 lab. Prereq., course in psychological measurements. (2nd sem., 1957-58.)
432. ADVANCED SOCIAL PSYCHOLOGY (3) Staff
A summary of the main theoretical and substantive trends in contemporary social psychology, with emphasis upon the role of small group theory and research. Prereq., 315. (2nd sem., 1959-60.)
454. LEARNING THEORY (3) Anderson, Nygaard
Lectures and readings covering theoretical works in the field of learning. Prereq., 353. (2nd sem., 1958-59.)
471. QUANTITATIVE METHODS I (3) Games
General topics of measurements including psychophysics methods, scaling techniques, correlational and experimental design analyses. 2 lec. and 2 lab. Prereq., course in psychological measurements. (2nd sem., 1957-58.)
472. QUANTITATIVE METHODS II (3) Games
A continuation and extension of Quantitative Methods I. 2 lec. and 2 lab. Prereq., 471. (2nd sem., 1959-60.)
481. RESEARCH IN PSYCHOLOGY (1 to 6) Staff
Prereq., permission.
494. SEMINAR IN PSYCHOLOGY (2 to 4) Staff
Trends and methods in psychology are critically reviewed. Cooperative investigations, findings of many studies coordinated with the student's own findings. Prereq., permission (2nd sem., yearly.)
495. THESIS (1 to 6) Staff
Prereq., permission.

RADIO-TELEVISION—See Dramatic Art and Speech

ROMANCE LANGUAGES

Professors Wilkinson, Ondis
Associate Professors Renkenberger, Rice (chairman)
Assistant Professor Cameron

To begin a graduate major in Romance languages, the student should have 28 hours of undergraduate work in one Romance language.

To begin a graduate minor in Romance languages, the student should have 16 hours of undergraduate work in one Romance language.

Graduate students majoring in Romance languages are required to take 4 hours in Romance Philology in courses above 400.

FRENCH

- 301, 302. SURVEY OF FRENCH LITERATURE (3, 3) Staff

A general view of French literature from the beginnings. Special topics for investigation by advanced students. Collateral readings and reports. (1959-60.)

- 303, 304. READINGS FROM FRENCH LITERATURE (3,3) Staff
 Selections vary with the needs of the class or the student. (Given on sufficient demand.)
328. SIXTEENTH CENTURY FRENCH LITERATURE (3) Staff
 Development of French thought during the Renaissance. (Given on sufficient demand.)
- 331, 332. SEVENTEENTH CENTURY FRENCH LITERATURE (3,3) Staff
 (1958-59.)
- 335, 336. EIGHTEENTH CENTURY FRENCH LITERATURE (3,3) Renkenberger
 (1958-59.)
381. RESEARCH IN FRENCH LANGUAGE AND LITERATURE (1 to 4) Staff
 A course designed to promote independent work in the study of special linguistic and literary problems. Maximum credit in course, 6 hrs. Prereq., permission. (Given on sufficient demand.)
495. THESIS (1 to 6) Staff
 Prereq., permission.

ITALIAN

- 301, 302. SURVEY OF ITALIAN LITERATURE (3,3) Staff
 (Given on sufficient demand.)
- 303, 304. READINGS FROM ITALIAN LITERATURE (3,3) Staff
 Selections may vary with the needs of the class. (Given on sufficient demand.)
371. ADVANCED ITALIAN (1 to 4) Staff
 Advanced work in language and literature. Maximum credit in course, 8 hrs. (Given on sufficient demand.)
495. THESIS (1 to 6) Staff
 Prereq., permission.

ROMANCE PHILOLOGY

- 325-326. GENERAL ROMANCE LINGUISTICS (2-2) Staff
 Introduction to graduate courses in philology. (Given on sufficient demand.)
- 421-422. ROMANCE PHILOLOGY (OLD FRENCH) (2-2) Staff
 Prereq., 16 hrs. in French and 16 hrs. in another Romance language or in Latin. R. Philol. 326 is advised but not required. (Given on sufficient demand.)
- 441-442. ROMANCE PHILOLOGY (OLD SPANISH) (2-2) Staff
 Prereq., 16 hrs. in Spanish and 16 hrs. in another Romance language or in Latin. R. Philol. 326 is advised but not required. (Given on sufficient demand.)
495. THESIS (1 to 6) Staff
 Prereq., permission.

SPANISH

- 301, 302. SURVEY OF SPANISH LITERATURE (3,3) Staff
 Historic and literary study of Spain from the Middle Ages to the present time. (1959-60.)

- 303, 304. READINGS FROM SPANISH LITERATURE (3, 3) Staff
 Selections vary with the needs of the class and the student. (Given on sufficient demand.)
- 305, 306. THE SPANISH DRAMA (3, 3) Staff
 Sp. 305 traces the drama in Spain from its origins to 1700; Sp. 306, from 1700 to the present. (1959-60.)
- 315, 316. THE SPANISH NOVEL (3, 3) Staff
 Sp. 315 covers the evolution of the novel in Spain from the earliest times to 1700; Sp. 316, the Spanish novel from 1700 to the present. (1958-59.)
381. RESEARCH IN SPANISH LANGUAGE AND LITERATURE (1 to 4) Staff
 Maximum credit in course, 6 hrs. Prereq., permission.
495. THESIS (1 to 6) Staff
 Prereq., permission.

SCULPTURE—See Art

SOCIOLOGY Associate Professors Jeddelloh, Harlan (chairman) Assistant Professors Worstell, Eggers, Park

A graduate major in sociology may follow either of two programs leading to the master's degree.

Option I: a 32-semester-hour program of preparation for teaching, research, or advanced graduate training. Requirements: undergraduate preparation, 10 semester hours in sociology, 12 hours in other social sciences or in specifically approved courses in related fields; graduate, 24 to 26 hours in sociology, including 3 to 6 hours devoted to the preparation of a thesis, and a minor of 8 hours in a related field.

Option II: an alternate program for a limited number of students who desire more intensive academic preparation accompanied by an internship and additional research, involving 8 to 12 semester hours beyond the usual M.A. program. Information regarding requirements may be obtained from the Dean of the Graduate College.

A graduate minor in sociology may be begun on the basis of 6 undergraduate credits in the field.

301. SOCIAL RESEARCH METHODS (2) Staff
 Principles of scientific method; theoretical and practical problems of research design; statistical and other methods of data analysis. Should precede or be taken in conjunction with 381 or 495. Prereq., course in statistics. (Yearly.)
303. SOCIOLOGICAL THEORY (2) Staff
 Origins and development of sociology; major European and American contributors; current trends and the status of specialized fields of interest. (Yearly.)
307. VOLUNTARY ASSOCIATIONS (3) Harlan
 The origins, social composition, and functions of informal and quasi-institutional groups such as lodges, veterans' organizations, service clubs, and sports and hobby clubs, as typical forms of association in contemporary society. (1959-60.)

311. CRIMINOLOGY AND PENOLOGY (3) Jeddleloh

An introduction to modern criminology and the correctional treatment of offenders. Field visits to courts and correctional institutions. (Yearly.)

315. FOLK COMMUNITIES (3) Park

Comparative study of primary village communities in various societies; the impact of Western technology and institutions; the disorganization of folk cultures.

316. CULTURE AND CIVILIZATION (3) Park

Anthropological and sociological analysis of the concept "civilization" and of the transformation of social life which it represents. Consideration of selected civilizations outside the main course of Western history, with emphasis on their characteristic ethos and social institutions. (1959-60.)

320. INDUSTRIAL SOCIOLOGY (3) Staff

Work groups and large business firms as social systems; worker-union-management relations; leadership; decision-making. Review of research in human relations in industry. (1959-60.)

321. CONTEMPORARY SOCIAL MOVEMENTS (3) Harlan

Characteristics and objectives of various types of social movements; reform and revolution; leaders, ideologies, tactics; case studies of typical movements.

322. JUVENILE DELINQUENCY (3) Jeddleloh

Factors associated with delinquency; characteristics of delinquents; juvenile courts and clinics; probation, correctional training; delinquency prevention. Field visits. (Yearly.)

325. PERSONALITY AND SOCIETY (3) Harlan

Survey of current systematic knowledge of child-rearing practices and parent-child relationships in various cultures and social classes, and of their consequences for the personality development of the child. (Yearly.)

326. DYNAMICS OF INTERPERSONAL RELATIONS (2) Eggers

Analysis of episodes of group interaction; role-playing as an experimental device in the study of interpersonal relations; theories concerning the development of competence in interpersonal relations. (Yearly.)

330. CURRENT SOCIOLOGICAL LITERATURE (1) Staff

Familiarization with the scope and types of professional literature of sociology and related fields. Professional organizations and activities; advanced training and employment requirements. (Yearly.)

336. PUBLIC OPINION AND MASS COMMUNICATIONS (3) Harlan

The processes of opinion-formation; relation to public policy decisions; public opinion polls; organization and control of mass media; nature and effects of propaganda. (Yearly.)

350. SPECIAL STUDIES IN SOCIOLOGY (1-4) Staff

Guided readings in special topics in sociology not included in the current departmental curriculum, in one or more of the following areas. Abstracts of readings, discussions with instructor, final essay. Maximum credit in course, 4 hrs.; in any one area, 2 hrs. Prereq., permission. (Yearly.)

- | | |
|--------------------------|--------------------------------|
| a. Social Organization | e. Cultural Anthropology |
| b. Social Psychology | f. Demography and Ecology |
| c. Collective Behavior | g. Criminology and Delinquency |
| d. Physical Anthropology | h. Social Work |

370. IN-SERVICE TRAINING (1 to 3) Staff
 Individually arranged work experience under responsible supervision; advance planning and departmental approval; periodic reports. Prereq., permission. (Yearly.)
375. SENIOR SEMINAR (2) Staff
 Required of all senior majors in last semester of residence. Includes comprehensive examination covering required courses and electives submitted for major. Prereq., 28 hrs. completed or in progress. (Yearly.)
381. RESEARCH PROBLEMS IN SOCIOLOGY (1 to 3) Staff
 Individual research; may be coordinated with other student or staff research. Maximum credit in course, 6 hrs. Prereq., permission. (Yearly.)
470. INTERNSHIP (3 to 6) Staff
 Full-time placement for research and training in positions in juvenile courts, business and industrial firms, governmental agencies, etc. 3 to 6 months. Prereq., candidacy for M.A. degree. (Yearly.)
491. SEMINAR (3) Staff
 Topic announced each term. Maximum credit in course, 6 hrs. Prereq., permission. (Yearly.)
495. THESIS (1 to 6) Staff
 Prereq., permission.

SOCIAL WORK

339. INTRODUCTION TO SOCIAL CASE WORK (3) Worstell
 The development of social case work; analysis of basic principles; problems and methods as seen in theoretical and case material. Prereq., specific consent of the instructor. (Yearly.)
341. FIELD SERVICES (2) Worstell
 In-service observation of agency functions and methods; assignment to specific work responsibilities; conferences with training supervisor. Two afternoons each week. Maximum credit in course, 4 hrs. Prereq., 339 and specific consent of the instructor. (Yearly.)

SPANISH—See Romance Languages

SPEECH AND HEARING THERAPY—See Dramatic Art and Speech

STATISTICS

Associate Professor Soltow (chairman)

A graduate major in Statistics is not available. A minor may be developed in this area of study.

303. VARIABLES (3) Staff
 The application of sampling theory to industrial operations. A course in industrial statistics especially recommended for students interested in production control.
341. BUSINESS CYCLES (3) Staff
 A study of the nature, causes, and theory of the business cycle together with a survey of techniques of description and control.

345. FORECASTING (3) Staff

The theory of prediction of social data and the theory of business forecasting with special reference to economic conditions and the business cycle.

381. RESEARCH IN BUSINESS STATISTICS (1 to 8) Staff

Prereq., permission.

391. SEMINAR IN BUSINESS STATISTICS (2 to 4) Staff

Maximum credit in course, 10 hrs. Prereq., permission.

ZOOLOGY

Professors Elliott, Frey (chairman), Stehr
Associate Professors Rowles, Seibert, Lawrence
Assistant Professors McQuate, Southwick,
Vallowe, Peterson
Instructor Tullis

For a graduate major in zoology the student will usually be expected to have completed at least 18 hours of approved subjects in zoology or in related fields approved by the department.

For a graduate minor a student will usually be expected to have completed a minimum of 10 hours in zoology or in related fields approved by the department.

301. MAMMALIAN ANATOMY (4) Elliott

The anatomy of mammals with particular emphasis on the cat. 2 lec., 4 lab. Prereq., comparative vertebrate anatomy. (2nd sem., yearly.)

302. VERTEBRATE EMBRYOLOGY (4) Peterson

All phases of vertebrate development are considered, and particular emphasis in laboratory is given to the chick and pig. 2 lec., 6 lab. Prereq., comparative vertebrate anatomy. (2nd sem., yearly.)

304. HISTOLOGY (4) Southwick

A study of the fundamental body tissues of vertebrates followed by a study of the histology of the various body systems. 2 lec., 4 lab. Prereq., anatomy. (2nd sem., yearly.)

305. PRINCIPLES OF PHYSIOLOGY (4) Rowles

Physio-chemical composition of living material; properties of solutions, membranes and enzymes; physiology of various body systems. Not open for graduate credit to students majoring in physiology. Organic Chemistry valuable. 2 lec., 6 lab. Prereq., anatomy and chemistry. (1st sem., yearly.)

305. PRINCIPLES OF PHYSIOLOGY (4) Rowles

Physio-chemical composition of living material; properties of solutions, membranes and enzymes; physiology of various body systems. Not open for graduate credit to students majoring in physiology. Organic Chemistry valuable. 2 lec., 6 lab. Prereq., anatomy and chemistry. (1st sem., yearly.)

308. PHYSIOLOGY OF EXERCISE (2) Rowles

An analysis of the manner in which the various organs of the body meet the requirements of physical activity as related to oxygen debt, fatigue, efficiency, diet, age, sex, body type, race, altitude, and environmental temperature. Course designed for majors and graduate students in physiology, physical education and athletics. Prereq., anatomy and physiology. (2nd sem., yearly.)

309. BIOLOGICAL CHEMISTRY

(4) Rowles

Introduction to physical chemistry of true and colloidal solutions; principles of enzyme action; chemistry of and tests for: carbohydrates, proteins, fats; digestion and metabolism; chemical analysis of: blood, bile, milk, urine. 2 lec., 4 lab. Prereq., physiology and organic chemistry. (1st sem., yearly.)

311. GENERAL BACTERIOLOGY

(4) Frey

A study of the structure, classification, and relationships of bacteria; preparation of cultures, staining, and biochemical reactions. Not open for graduate credit to majors in bacteriology. 2 lec., 4 lab. Prereq., organic chemistry. (Each semester.)

312. PATHOGENIC BACTERIOLOGY

(4) Lawrence

Microorganisms in relation to diseases. A study of disease manifestations, methods of transmission, means of protection and immunity. 2 lec. and 4 lab. Prereq., 311. (1st sem., yearly.)

314. MICROBIOLOGICAL TECHNICS

(2) Frey, Lawrence

A practical course designed to give the student extensive experience in the use of bacteriological technics and equipment. 4 lab. Prereq., 311. (1st sem., yearly.)

316. ANIMAL PARASITES

(4) Lawrence

A study of parasites in relation to human disease. Parasites infesting man, their life histories, the diseases they produce, and means of prevention. 2 lec., 4 lab., Prereq., permission. (2nd sem., yearly.)

317. ADVANCED GENERAL BACTERIOLOGY

(4) Lawrence

A study of bacteria as living systems. Subjects considered will include: growth requirements, enzyme systems, intermediary and end products formed, influence of environmental factors and bacterial taxonomy. 2 lec., 4 lab. Prereq., 311. (2nd sem., yearly.)

320. ADVANCED ENTOMOLOGY

(4) Stehr

Study of insect morphology and the principles of insect classification and identification, with emphasis on the more extensive orders. 2 lec., 4 lab. (1958-59.)

325-326. INVERTEBRATE ZOOLOGY

(4-4) Stehr

A study of the structure, relationships, and life histories of representative members of the various invertebrate phyla, together with related general principles. 2 lec., 4 lab. Prereq., permission. (1959-60.)

327. ANIMAL ECOLOGY

(4) Seibert

A study of the effect of environment on animals; the role of temperature, moisture, gases, photoperiod, metabolism, osmotic regulation on ecological distribution; physiological and structural adaptations. Experimental methods in field and laboratory. 2 lec., 4 lab. or field work. (1959-60.)

343. BIOLOGICAL STUDIES (1 to 4 a semester in any of the following areas)

Semi-independent studies under the guidance of the instructor. Maximum credit in any one area, 8 hrs. Prereq., permission.

- a. *Bacteriology*—studies in water, dairy, and pathogenic bacteriology; serology and advanced technic. Frey, Lawrence.
- b. *Ecology*—field and laboratory studies of the relation between animals and their surroundings. Seibert, Southwick, Stehr.
- c. *Entomology*—classification, structure, life histories, and economic aspects of insects. Stehr.

- d. *Genetics*—breeding experiments, pedigree analysis and library work in the field of heredity. McQuate, Tullis.
- e. *Invertebrate Zoology*—classification, structure, embryology, and life history of invertebrates. Peterson, Stehr.
- f. *Parasitology*—animal parasites. Peterson, Lawrence.
- g. *Physiological Zoology*—physiological and related experimental studies. Vallowe, Rowles.
- h. *Readings in Biology*—readings dealing with biological history, theory, and advances. Stehr.
- i. *Technicians' Methods*—technic and theory of blood, urine, gastric analysis, fecal examination, and serological methods. Frey.
- j. *Vertebrate Anatomy*—gross and microscopic anatomy, embryology, histological technic. Elliot, Peterson.
- k. *Vertebrate Zoology*—classification, life history studies. Vallowe, Seibert.

413. BACTERIOLOGICAL REVIEW

(2) Frey

An advanced theoretical course in bacteriology. Special reference is made to dissociation, bacterial growth curves, anaerobiasis, oxidation and reduction, and bacterial metabolism. Prereq., permission. (Given on sufficient demand.)

415. PHYSIOLOGICAL REVIEWS

(2) Rowles

An advanced lecture and conference course, involving literature review in various specialized phases of physiology and biological chemistry. Prereq., permission. (Given on sufficient demand.)

485. RESEARCH IN BIOLOGY

(1 to 4) Staff

Research work in all areas listed under 343. This course fulfills the thesis requirement. Maximum credit in course, 4 hrs. Prereq., 20 hrs. and permission.

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GENERAL ADMINISTRATIVE OFFICERS

See inside front cover for directory of Administrative Officers in the Colleges and Divisions.

MARGARET MARY DEPPEN, M.S. -----*Dean of Women*, McGuffey Hall

ARTHUR MAUREL HUNKINS, M.A. -----*Dean of Men*, McGuffey Hall

MYRON ALBERT HUTCHESON, B.S.J.----*Director of Student Financial Aids*,
McGuffey Hall

VINCENT JOSEPH JUKES, M.A. ----*Director of Radio, Television, and
Audio-Visual Services, and Co-ordinator of Veterans Affairs*,
29 South College Street

ROBERT ERNST MAHN, M.A. -----*Registrar and University Editor*,
Ewing Hall

PAUL RAYMOND O'BRIEN, A.B.C. -----*Treasurer*, Ewing Hall

ANTHONY MARTIN REIS, B.S.C. -----*Director of Housing*,
McGuffey Hall

BERTRAM ALLISON RENKENBERGER, Ph.D. --*Adviser to Foreign Students*,
29 South College Street

ELEONORA LOUISE SCHMIDT, M.D. -----*Director of the Health Service*,
Health Center

CLARK EMERSON WILLIAMS, A.B. -----*Director of Admissions and
University Examiner*, Cutler Hall

WALTER WOODMAN WRIGHT, S.B., B.S.L.S. -----*Librarian*,
Edwin Watts Chubb Library



Library

Volume LV

November 1958

Number 6



OHIO UNIVERSITY BULLETIN

ATHENS, OHIO

THE GRADUATE COLLEGE

● 1958 ●

FOR USE WITH THE 1958-1960
GRADUATE COLLEGE BULLETIN

LIVING ARRANGEMENTS

Page 9 in the Graduate College Bulletin

HOUSING: The third sentence is revised to read: The rental rate is \$144.00 for each student for a semester; the board charge is \$234.00 for a semester.

Page 10 in the Graduate College Bulletin

FAMILIES: The following sentence is added to the first paragraph: In the academic year 1959-1960 the University expects to complete 48 new apartments for married students.

BOARD: The second sentence is revised to read: The cost of board in University halls is \$234.00 a semester for 21 meals a week.

THE GRADUATE PROGRAM

Page 12 in the Graduate College Bulletin

The following is substituted for the third paragraph: The degree of Doctor of Philosophy is at present granted in Chemistry, Education, Public Address, and Speech and Hearing Therapy.

FEES

Page 13 in the Graduate College Bulletin

REGISTRATION FEES

The following fee adjustments are revised to read:

| The Semester: | Resident of Ohio | Non- Resident |
|--|---------------------|------------------|
| Comprehensive fee for load of 12 to 16 hours. ---- | \$135.00 | \$285.00 |
| Fee for each hour for load of 7 to 11 hours. ---- | 12.00 | 25.00 |
| Fee for each hour for load of 1 to 6 hours. ----- | 10.00 | 25.00 |

MATRICULATION FEE

A \$10.00 matriculation fee is effective for the 1959-60 year. It is levied only once upon an entering or reentering, or a transfer student.

ESTIMATED EXPENSE

| | | |
|--------------------------------------|-----------------|-----------------|
| Comprehensive Registration Fee ----- | \$135.00 | \$285.00 |
| Rent in Dormitory ----- | 144.00 | 144.00 |
| Board in University Halls ----- | 234.00 | 234.00 |
| Total ----- | \$513.00 | \$663.00 |

AREAS OF GRADUATE STUDY

Page 15 in the Graduate College Bulletin

Addition: Statistics (minor work only)

DESCRIPTION OF AREAS OF GRADUATE STUDY

Page 16 in the Graduate College Bulletin

Additions:

ARTS AND SCIENCES: English (page 59): Graduate majors in English are required to take the following courses: English 391-392, 401, and 470. Exception is made for those who can satisfy the requirements for a creative writing option. Such students will substitute English 393-394 for 401.

COMMERCE: The requirements for beginning a graduate major or minor in accounting (page 30), finance (page 62), and marketing-advertising (page 80) refer to the Master of Business Administration degree. To begin a minor in these areas for degrees other than the Master of Business Administration, only the completion of basic courses satisfactory to the department is necessary.

EDUCATION: Advanced preparation leading to the Doctor of Philosophy degree in Education is designed to meet the professional needs of school administrators and supervisors, guidance workers, and college teachers of Education.

Majors are offered in: School Administration and supervision, Guidance and counseling.

Minors are offered in: Elementary education, Secondary education, Curriculum and instruction, Educational psychology, History and philosophy of Education, Teacher education.

It is expected that certain minor areas will in time be developed into majors and that additional minors will be offered.

FINE ARTS: Dramatic Art and Speech. The Speech Science Laboratory is now well equipped for research. Plans are being made to put in an Audiological Center next year, and the establishment of a Persuasion Laboratory is being considered. A combined major in theatre and television on the doctoral level may soon be available.

INDUSTRIAL ARTS: All students working for the Master of Education degree under Plan B (page 46) must present a research report approved by two members of the departmental committee prior to the comprehensive examination.

PHYSICAL EDUCATION: The Division of Physical Education will consider including any of the following courses for credit toward the major with the Division of Physical Education and Athletics, i.e.:

| | | |
|------------|---------------------------------|-------------|
| Educ. 381 | Educational Statistics | 3 sem. hrs. |
| Educ. 382 | Advanced Educational Statistics | 3 sem. hrs. |
| Educ. 488 | Introduction to Graduate Study | 3 sem. hrs. |
| Psych. 310 | Mental Hygiene | 3 sem. hrs. |
| Psych. 315 | Social Psychology | 3 sem. hrs. |
| Zool. 305 | Principles of Physiology | 4 sem. hrs. |
| Zool. 308 | Physiology of Exercise | 2 sem. hrs. |

ENGINEERING: A program of graduate study leading to the Master of Science degree in electrical engineering with options in electronics-communications, automatic control, or power is available. A program in mechanical engineering is provided in new engineering laboratories, comprising the fields of machine design and thermodynamics.

HOME ECONOMICS: High school teachers may construct a graduate program of courses in several areas of the field instead of specializing in one area. Fine laboratory facilities are available for study and research in household equipment, textile testing, foods and nutrition, clothing, and home furnishings. A Nursery School and Home Management House offer opportunities for studying children and problems in the management of the home.

ADMISSION REQUIREMENTS AND STUDY REGULATIONS

Page 19 in the Graduate College Bulletin

The first sentence of the footnote is revised to read: Information regarding these examinations, including application blanks, may be had at the office of the Director of Admissions or the office of the Supervisor of Testing Service.

The following information is added to the footnote:

The Graduate Record Examinations are usually administered at Ohio University in January.

Applications Close

January 2, 1959

January 1, 1960

Testing Date

January 17, 1959

January 16, 1960

FEES FOR THE GRADUATE RECORD EXAMINATIONS:

| | | |
|-------------------|--------------------|-------|
| Aptitude test | Morning session—\$ | 8.00 |
| One Advanced test | Afternoon session | 9.00 |
| Both tests | Same day | 14.00 |

GRADUATE APPOINTMENTS

Page 21 in the Graduate College Bulletin

The first sentence of the second paragraph is revised to read: Graduate assistantships provide a stipend of \$1600 to \$2000 for the academic year of two semesters and waiver of all fees, resident and non-resident, with the exception of a \$30 incidental fee.

The third paragraph is revised to read: The general registration fee, with the exception of a \$15 incidental fee for each summer term, will also be waived during the summer sessions directly preceding and following the period of a graduate assistant's appointment.

Page 22 in the Graduate College Bulletin

The first sentence is revised to read: Graduate assistantships are usually available to qualified students in the following fields: accounting, bacteriology, botany, business education, chemistry, dramatic art and speech, economics, education, electrical engineering, mechanical engineering, English, finance, geology, German, government, history, home economics (including nursery school), human relations, industrial arts, journalism, management, mathematics, music, painting and allied arts, philosophy, photography, physical education, physics, psychology, Romance languages, sociology, and zoology.

The second sentence of the second paragraph is revised to read: The stipends, based upon both experience and teaching responsibility, range from \$2000 to \$2800 for two semesters of service with the same provisions for waiver of fees as the graduate assistantships.

SCHOLARSHIPS: The following sentence is added: Scholarships amount to \$490 for out-of-state graduate students and \$190 for Ohio students.

COURSES OF INSTRUCTION ADDITIONS, REVISIONS, DELETIONS CHEMISTRY

335. RADIOCHEMISTRY 3 Added
 An introductory course in the application of isotopes to problems in chemistry, and the chemical effects of radiation and mass of isotopes. Prereq., Chem. 314 or permission.
427. SPECIAL TOPICS IN PHYSICAL CHEMISTRY 2-4 each Topics defined
 Deals with advanced topics in physical chemistry:
 a. Statistical Thermodynamics
 b. Molecular Structure
 c. Selected Topics in Chemical Kinetics.
 Prereq., 317.
435. SPECIAL TOPICS IN INORGANIC CHEMISTRY 2 or 3 each Topics defined
 Deals with advanced topics in inorganic chemistry:
 a. Less Familiar Elements
 b. Co-ordination Compounds
 c. Solutions.
 Prereq., 333.
471. SPECIAL TOPICS IN ORGANIC CHEMISTRY 2 or 3 each Topics defined
 Deals with advanced topics in organic chemistry:
 a. Physical Organic
 b. Steroids
 c. Terpenes
 d. Heterocyclics
 e. Organometallic Compounds
 f. High Polymers

DRAMATIC ART AND SPEECH

DRAMATIC ART

321. DRAMATIC COMPOSITION 3 Delete
321. HISTORY OF DRAMATIC CRITICISM 3 Added
 The principles of dramatic criticism from Aristotle to the present. Some attention to critical standards and their application to drama in performance. Prereq., 12 hours or equivalent in advanced courses in English and permission.

347. WORKSHOP IN SUMMER THEATRE 6-8 Added

Practical experience in all phases of theatre through participation in the productions of the Ohio Valley Summer Theatre. Maximum credit in course, 16. 6-9 Lab. Prereq., permission.

447. ADVANCED PROBLEMS IN DRAMATIC PRODUCTION 3-6 Added

Lectures, readings, reports, and discussions on problems of underlying philosophy, administrative structure, management, finance, and direction of theatre programs, with special reference to the summer theatre program which serves as a laboratory for observation and participation. Maximum credit in course, 6. 2-4 Lab. Prereq., permission.

PUBLIC ADDRESS, ORAL INTERPRETATION, AND SPEECH EDUCATION**395. ADVANCED ARGUMENTATION AND DEBATE 3 Added**

A study of advanced principles of argumentation and persuasion. Analysis of logical, ethical and emotional proof. Applications in various types of forensic and parliamentary debate. Prereq., 15 hours. (Alternate years.)

445. APPROACHES TO THE STUDY OF ORAL COMMUNICATION 3 Added

Scientific approaches to the study of communication behavior in individuals and groups. Comparison and integration of communication methodologies. A systematic study will be made of ten approaches to communication. Prereq., 12 hours in Speech, 6 hours in Psychology, or permission. (Alternate years.)

SPEECH AND HEARING THERAPY**329. ADVANCED CLINICAL AUDIOLOGY 3 Added**

An advanced course in the pathology of the ear and the related speech disorders, emphasizing especially advanced techniques in the testing of hearing for analysis and differential diagnosis. Prereq., 12 hours of Speech and Hearing Therapy including 319. (Alternate years.)

ECONOMICS**325. ECONOMIC POLICY AND INDUSTRIAL ORGANIZATION 3 Added**

An examination of the social consequences of monopoly and competition, trends in industrial concentration, the consequences of bigness, the relationship between market structure and national income, the concept of "workable" competition. National policy relating to economic concentration and market structure will be considered as well as the impact of this national policy on United States business. Prereq., 3 hours.

380. STUDIES IN ECONOMICS

1-3 Added

Directed readings and/or research in selected fields of economics. Topics selected by student with advice of staff member. Prereq., 12 hours of economics and permission.

EDUCATION

335. WORKSHOP IN ELEMENTARY SCHOOL ADMINISTRATION 2 Added

This workshop will consider current problems in the administration of elementary schools. Extensive use will be made of the library resources and of the materials in the Center for Educational Service. Students in this course will attend lecture sessions throughout the morning period and will work in small groups in the afternoons. Lecturers from the field of elementary education and from related fields will be utilized in making the course sufficiently broad to meet the demands and interests of the participants. A research paper. Prereq., 12 semester hours in education including course work in administration.

341. WORKSHOP IN AUDIO-VISUAL EDUCATION

2 Added

A concentrated course in audio-visual aids for teaching. Emphasis on better implementation of teaching procedures through audio-visual materials. A two week's experience of lectures, laboratory, demonstrations, and directed reading. Prereq., permission.

395. EDUCATIONAL MEASUREMENTS

Course Number changed to 385

410. ADMINISTRATION OF THE ELEMENTARY SCHOOL

Credit changed from 2 to 3

416. READINGS AND RESEARCH IN HUMAN DEVELOPMENT 3 Added

Interpretation of the scientific literature on human development as related to classroom experience in kindergarten through twelfth grade. Independent projects delineating the developmental bases for understanding and solving selected educational problems. Lectures, discussions, reports, special observations. Prereq., 403 or permission.

430. HIGH SCHOOL ADMINISTRATION

Credit changed from 2 to 3

443. SCHOOL LAW

Credit changed from 2 to 3

450. HIGHER EDUCATION

Credit changed from 2 to 3

462. FIELD EXPERIENCE IN GUIDANCE

Credit changed from 2 to 2-4

463. INDIVIDUAL ANALYSIS IN GUIDANCE**3 Added**

This course is intended to provide advanced masters students and doctoral students with a better understanding of the theory and application of the many diverse procedures available for understanding individual pupils. Having pursued specialized courses in statistics, educational measurement, and mental measurement the student needs two types of training: 1. Training in the understanding and use of such aids as the cumulative record, case study procedures, sociometric tests, and the use of group processes for understanding the individual. 2. Training in the synthesis of all the sources of information about the pupil and the development of a sound basis upon which to use these sources in the guidance processes (counseling, group guidance and the like). Prereq., Ed. 381 or equivalent, a course in educational measurement, and a course in mental measurement.

464. COMMUNITY RESOURCES AND RELATIONS IN GUIDANCE**3 Added**

This course will cover a variety of topics, all of them related to the community bases of developing a sound school guidance program: The legal bases for guidance work, especially as to child labor laws, state regulations as to education, the legal status of the counselor, national, regional and state organizations of assistance to guidance workers. This would include the state and federal programs of significance to guidance. The study of community resources for guidance, the relations of guidance workers to those in social services agencies, the development of cooperative relationships among these resources. Home and school cooperation in guidance. Prereq., Ed. 360.

465. GROUP GUIDANCE: MATERIALS AND PROCEDURES**3 Added**

This course will assist the guidance worker first to develop a sound theoretical basis for understanding the place of group work in guidance. Materials for such group guidance activities as career courses, personal problems courses, self-analysis and planning units, career days, college days and the like will be studied and evaluated. Teaching methods especially applicable to group guidance purposes will be studied and evaluated in the light of educational theory and practicability. Laboratory work in the Guidance Laboratory and the Materials Center will supplement class work. Prereq., Ed. 360, 362.

467, 468. ADVANCED PRACTICUM IN GUIDANCE**2-5, 2-5 Added**

Directed practice in counseling, individual pupil analysis, preparation and use of guidance materials, techniques of evaluation, group procedures in guidance and the like. The practicum will enroll only doctoral students and will ordinarily be enrolled in by the student for two semesters. The credit will be varied depending upon the extent of practicum training which the student's background and current understandings dictate. Most of the work will be done in the

Guidance Laboratory, although under some circumstances, students will be placed in school situations for this work. Prereq., advanced standing and permission of the director of the practicum.

491-492. ADVANCED SEMINAR IN EDUCATION 3-3 Added

Current literature and advanced research in education. Individual reports and discussion. Required of first year post-master's students. Prereq., permission.

ENGINEERING

380. COLLOQUIUM 1 Added

A series of lectures mainly by speakers outside the engineering field on cultural and professional subjects with discussion moderated by the speaker. (1st sem., yearly.)

CHEMICAL ENGINEERING

340. DESIGN AND INSTRUMENTATION Corrected description

The description should end thus: "the application of automatic controls."

ELECTRICAL ENGINEERING

310. SEMI-CONDUCTORS 3

Prerequisite changed to 308.

321,322. HIGH-FREQUENCY TECHNIQUES 3,3

Prerequisite changed to 308 or 201 and 309 or permission.

331. SERVOMECHANISMS 3

Prerequisite changed to 334.

334. ADVANCED CIRCUITS 3

Prerequisite changed to Math. 315, and 308 or 309.

336. FIELDS AND WAVES 3 Added

A continuation of the study of electrical phenomena from the viewpoint of field theory. Prereq., 335.

341. ELECTRICAL TRANSMISSION OF POWER 3

Prerequisite changed to 304 or 342.

351. INSTRUMENTATION AND MEASUREMENTS 3 Added

A transient analysis of linear electro-mechanical circuitry used in measurements. The Laplace Transformation is required. Prereq., 334. 2 lec., 2 lab.

403. ADVANCED ENGINEERING ANALYSIS 3 Added

The general theory of methods in modern engineering analysis. The application of convergent series to the solution of problems by engineering approximations of various degrees. The use of graphical methods in linear and non-linear situations. Dimensional analysis and equation checking as applied to engineering problems. The development of a basic philosophy of approach to engineering problems. Prereq., Math. 316 or permission.

405. SYSTEM STABILITY STUDIES 3 Added

Studies of technical problems pertaining to power systems. Both synchronous and asynchronous loadings are considered. Maximum use is made of digital computer techniques and matrix algebra. Prereq., 304.

MECHANICAL ENGINEERING

311. AIR CONDITIONING AND REFRIGERATION 3 Deleted

312. INTERNAL COMBUSTION ENGINES 4 Deleted

323. THERMODYNAMIC ANALYSIS I 3 Added

Psychrometrics, vapor-compression and absorption refrigeration, heating and cooling load calculations.

324. THERMODYNAMIC ANALYSIS II 3 Added

Detailed analysis of vapor and gas power cycles and of their individual components.

381. INDUSTRIAL PLANT DESIGN 3 Added

Semester report covering complete design of an industrial plant for manufacturing a specific product. Includes market survey, manufacturing planning, plant layouts, organization and financial analysis. 2 lec., 2 lab. Prereq., Mgt. 211, 302, and/or with 321.

ENGLISH

481. ORIENTATION IN TEACHING COLLEGE ENGLISH 1 Added

Supervised evaluation and application of techniques in teaching regular courses in freshman composition and sophomore literature, English and American. Attendance at regular staff meetings and discussion sessions of both. Reports and conferences. (1st sem., yearly.)

482. COMPOSITION AND RHETORIC 2 Added

Instruction in the theories of grammar, syntax, diction, logic, style, etc. Systematic analysis of textbooks on these subjects. (2nd sem., yearly.)

GEOLOGY

- 391,392. SEMINAR IN GEOLOGY 1,1 Maximum credit specified
 Selected topics. Required of all major students. Maximum credit in course, 3 hours. (Yearly.)

HISTORY

356. THE MIDDLE EAST SINCE 1800 3 Added
 The decline of the Ottoman Empire during the course of the 19th century, the evolution of the successor national states of the Middle East, and contemporary economic, social, and political problems of the area.

INDUSTRIAL ARTS

303. CURRENT TRENDS AND DEVELOPMENTS IN INDUSTRIAL EDUCATION 2 Added
 A study of new developments and undertakings in the field of industrial education. Attention will be directed toward the philosophies directing the movements, the methods of organization, the apparent results, and possible future implications for industrial educators. (Summer Session only.)
371. ADMINISTRATION AND SUPERVISION OF INDUSTRIAL EDUCATION
 Number changed from 471; credit changed from 3 to 2 or 3 as scheduled.

MANAGEMENT

308. PRODUCTION PLANNING AND CONTROL
 Credit changed from 2 to 2 or 3

MATHEMATICS

317. INTRODUCTION TO MODERN ALGEBRA 3 Added
 Development of the postulates of group theory, fields, rings, matrices and point sets. Prereq., 301 or permission. (1st Sem., 1959-60)
322. DIGITAL COMPUTER PROGRAMMING 3 Added
 Number and instruction representations and arithmetic operations in digital computers, principles of program construction, computation sequences, jumps and loops, routines and subroutines, error diagnosis, interpretive routines, multiple precision and floating point. Prereq., Math. 315.

399. SEMINAR IN COMPUTING 1 Added
Topics in programming and theory of digital computing machines.

MUSIC

332. VOCAL ENSEMBLE 1 Added
Participation in the singing of standard madrigal and motet literature. Maximum credit in course, 4 hours. Prereq., permission.

PHYSICAL EDUCATION AND ATHLETICS

492. SCIENTIFIC FOUNDATIONS OF HEALTH EDUCATION AND PHYSICAL EDUCATION 3 Added
A summation of the scientific principles underlying the programming, instruction and administration of health education and physical education. Basic principles from biology, psychology, and sociology are considered. Prereq., permission.

PHYSICS

360. SOLID STATE PHYSICS 3 Added
Crystal structures, lattice vibrations, thermal properties of solids, Fermi-Dirac statistics, free electron theory of metals, band theory of solids, thermal and electrical conductivity, magnetic properties of solids, semi-conductors, superconductivity, imperfections in solids. (2nd semester, 1959-60.) Prereq., Physics 349 and Math. 315.

