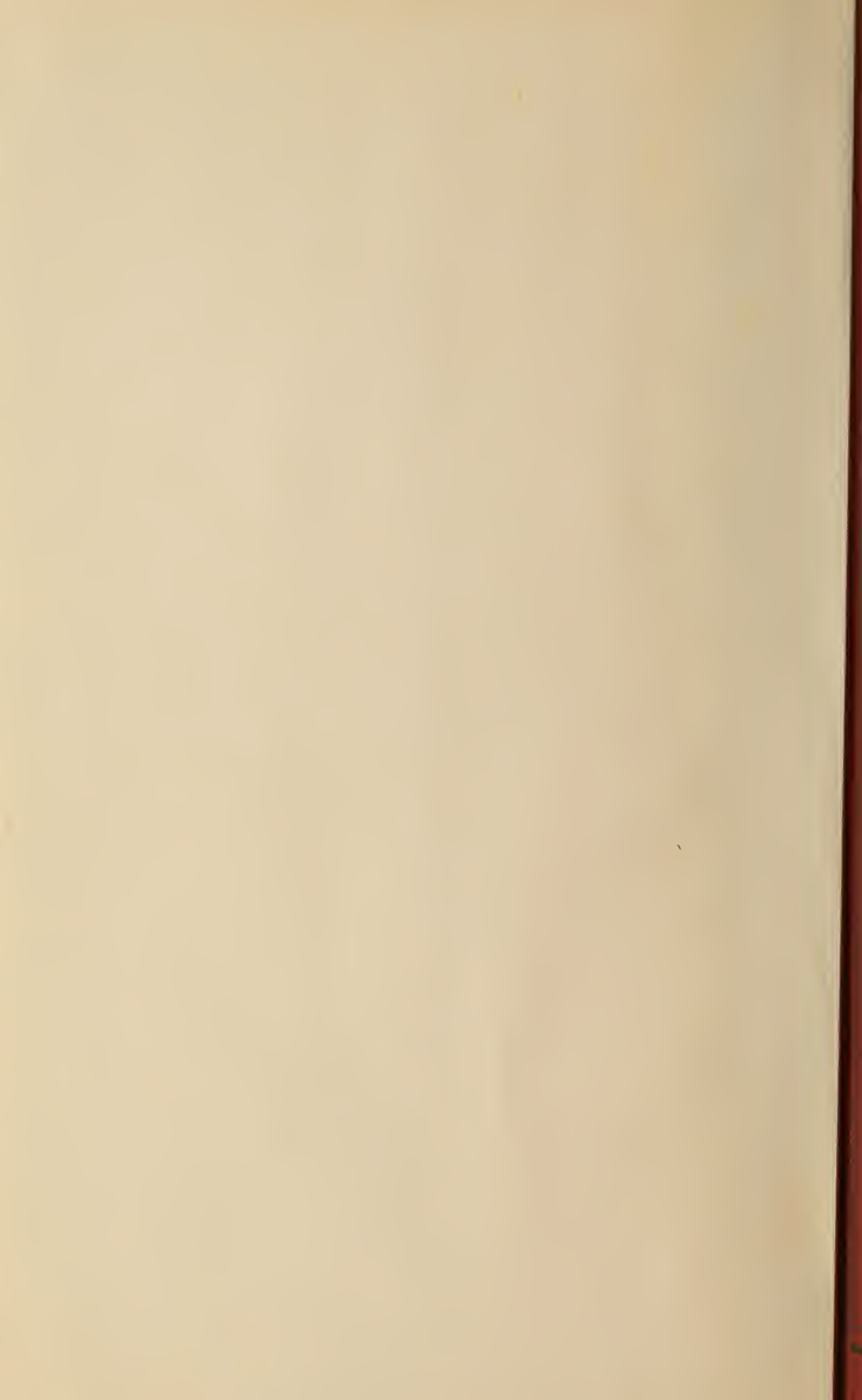




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BULLETIN OF

The University of Georgia

Vol. LXI, No. 8

March 15, 1961

General Catalogue



Register for 1960-1961

Announcements for 1961-1962

Athens, Georgia



BULLETIN OF
THE UNIVERSITY OF GEORGIA

GENERAL CATALOGUE
1961-1962

ATHENS, GEORGIA

1961

CALENDAR

1961

APRIL							JULY							OCTOBER								
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1962

CALENDAR

1962

JANUARY							APRIL							JULY										
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UNIVERSITY OF GEORGIA
CALENDAR, 1961 - 1962

SUMMER QUARTER, 1961

First Term

JUNE 12: Registration
JUNE 13: Classes Begin
JULY 3-4: Holiday (classes will meet Saturday, July 8)
JULY 20: Term Ends

Second Term

JULY 24: Registration and Classes Begin
AUGUST 17: Graduation

FALL QUARTER, 1961

SEPTEMBER 17: Freshmen and other new students report to assigned dormitories
SEPTEMBER 17-23: Orientation Week
SEPTEMBER 21-22: Registration
SEPTEMBER 18-30: AATES and Workshop Registration
SEPTEMBER 25: Classes begin for all students
SEPTEMBER 30: Saturday Class registration
NOVEMBER 23-26: Thanksgiving recess—Begins 3:00 p.m. on November 22
DECEMBER 11-15: Examinations
DECEMBER 15: Term Ends
DECEMBER 16: Christmas Vacation begins

WINTER QUARTER, 1962

JANUARY 2: Registration—Saturdays, January 6 and 13 and March 3 will be regular class days
JANUARY 3: Classes Begin
MARCH 1: Constitution Examination—3:30 p.m., LeConte Hall
MARCH 9-13: Examinations
MARCH 13: Term Ends
MARCH 14-19: Spring Recess

SPRING QUARTER, 1962

MARCH 20: Registration—Saturdays, March 24 and 31 will be regular class days
MARCH 21: Classes Begin
MAY: Annual Inspection of Air and Army ROTC
MAY 16: Honors Day
MAY 26-30: Examinations
JUNE 2: Term Ends, Graduation and Alumni Day

SUMMER QUARTER, 1962

JUNE 11-AUGUST 16:

BULLETIN OF THE UNIVERSITY OF GEORGIA

Volume LXI

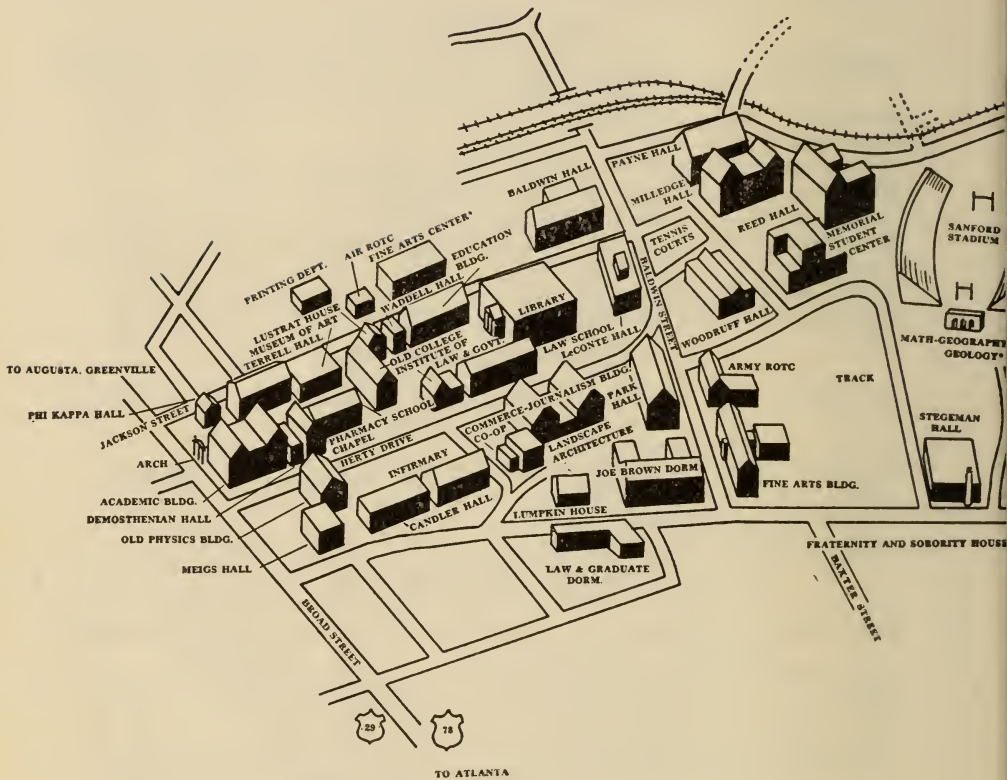
March 15, 1961

Number 8

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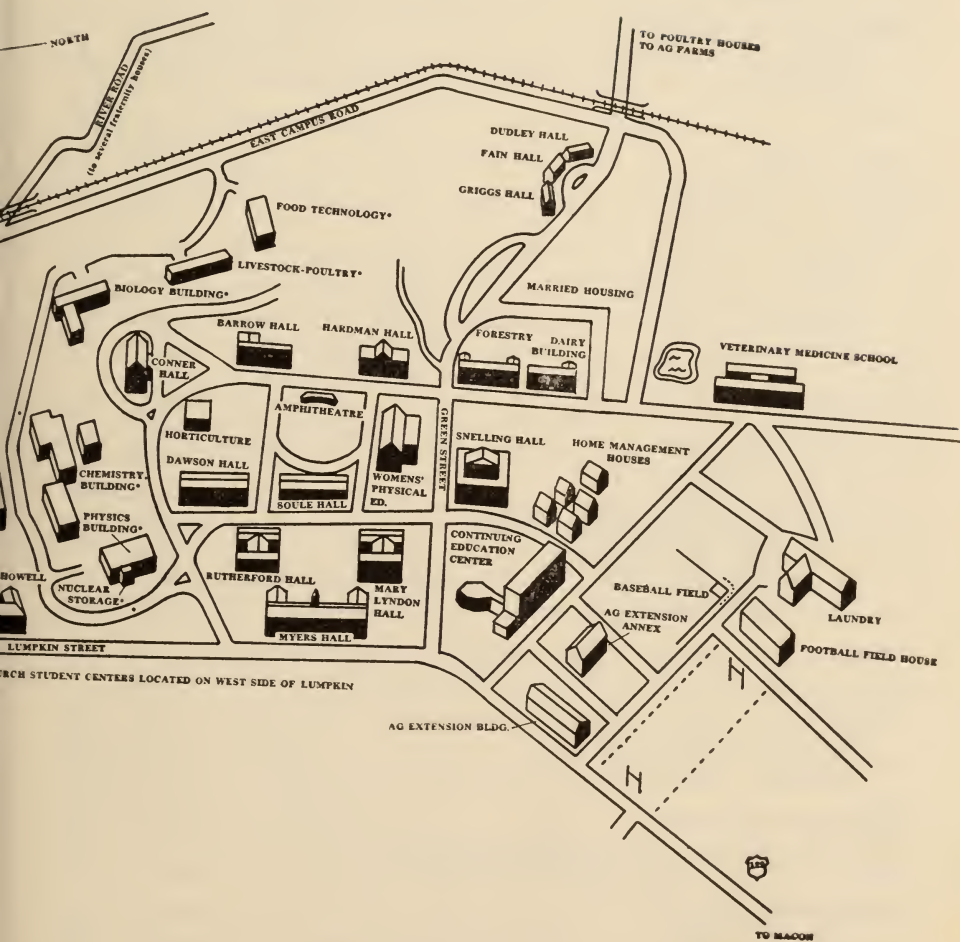
Serial No. 1199

THE UNIVERSITY OF



NORTH CAMPUS

GEORGIA CAMPUS



SOUTH CAMPUS

CONTENTS

	PAGE
CALENDAR, 1961-62	3
MAP OF CAMPUS	4
BOARD OF REGENTS	8
ADMINISTRATIVE OFFICERS	
General	9
Educational	10
FACULTY	11
LIBRARY STAFF	48
GRADUATE ASSISTANTS	49
GENERAL INFORMATION	
History	53
Grounds and Buildings	54
Libraries	54
Laboratories	55
ADMISSION TO COLLEGES AND SCHOOLS	
General	56
By Certificate	59
By Examination	59
As Transfer Students	59
Graduate and Professional Schools	61
Requirements for Certain Ages	61
As Irregular Students	61
Choice of School or College.....	61
FIELDS OF INSTRUCTIONAL WORK—DEGREES OFFERED	61
REGISTRATION	62
Physical Examinations	62
Freshman Registration	63
Placement Examinations	63
HOUSING OF STUDENTS	63
PROGRAMS FOR VETERANS AND WAR ORPHANS	66
ACADEMIC REGULATIONS	
Units of Credit	66
Grading System	66
Classification of Students	67
Work Load	68
Requirements for Degrees	69
Miscellaneous Regulations	70
Probation and Dismissal	72
HONORS AND PRIZES	73

	PAGE
STUDENT LIFE AND ACTIVITIES	
Student Counseling	83
Student Health Service	84
FEES AND EXPENSES	
Application Deposit	86
Fees Payable on Registration	87
Time and Method of Payment	89
Special Fees and Charges	89
Fee Refunds	90
Summary of Expenses	91
FINANCIAL AID FOR STUDENTS	
Loan Funds	91
Student Employment	94
Placement of Graduates	95
THE GEORGIA CENTER FOR CONTINUING EDUCATION	95
OTHER UNIVERSITY ACTIVITIES	
Short Courses, Conferences, Institutes	97
Institute of Statistics	98
The University of Georgia Press	98
Athletic Association	99
Alumni Society	99
The University Foundation	100
THE GRADUATE SCHOOL	102
Admission	102
Advanced General Degrees	104
Advanced Professional Degrees	108
Fellowships, Assistantships, and Scholarships	115
UNIVERSITY RESEARCH	117
Research Program at the Oak Ridge Institute of Nuclear Studies	118
THE FRANKLIN COLLEGE OF ARTS AND SCIENCES	119
THE SCHOOL OF LAW	221
THE SCHOOL OF PHARMACY	241
THE COLLEGE OF AGRICULTURE	251
THE GEORGE FOSTER PEABODY SCHOOL OF FORESTRY	309
THE COLLEGE OF EDUCATION	319
THE COLLEGE OF BUSINESS ADMINISTRATION	352
THE HENRY W. GRADY SCHOOL OF JOURNALISM	378
THE SCHOOL OF HOME ECONOMICS	395
THE SCHOOL OF VETERINARY MEDICINE	415
DIVISION OF THE ARMED SERVICES	427
INDEX	430

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UNIVERSITY SYSTEM OF GEORGIA

244 Washington Street, S. W., Atlanta

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GENERAL INFORMATION

THE UNIVERSITY

HISTORY

The University of Georgia was incorporated by an Act of the General Assembly on January 27, 1785. In the preceding year the General Assembly had set aside 40,000 acres of land to endow a college or seminary of learning. Georgia was the first state to provide for the establishment of a state-supported university.

The first meeting of the Board of Trustees was held in Augusta on February 13, 1786. At this meeting the Trustees selected Abraham Baldwin as president of the University. Baldwin, a native of Connecticut and a graduate of Yale University, had come to Georgia in 1784. It was he who drafted the charter adopted by the General Assembly.

The University was not actually established until 1801. In that year a committee of the Board of Trustees selected a site for the new institution. John Milledge, later a governor of the state, purchased the site chosen—a tract of 633 acres on the banks of the Oconee River in Northeast Georgia—and gave it to the Board of Trustees. In the fall of 1801 Josiah Meigs was named president of the University and work was begun on the first building. This building, originally called Franklin College in honor of Benjamin Franklin, is still standing and is now known as Old College. The University opened its doors to students in 1801 and graduated its first class in 1804.

During the early part of the nineteenth century the curriculum of the University of Georgia—or of Franklin College as it was then frequently called—embraced only courses in traditional classical studies. In 1843 the scope of the work of the institution was broadened by the offering of courses in law. The activities of the University were broadened still further in 1872 when the institution was designated to receive Federal funds provided for instruction in agriculture and the mechanical arts.

After the turn of the century the activities of the University expanded rapidly to meet the demands for various types of professional and technical training. The teaching and research work of the University is now carried on by eleven colleges and schools and by a division which is an integral part of the University. These colleges and schools and the dates of their establishment as separate administrative units are as follows: College of Arts and Sciences, 1801; School of Law, 1859; School of Pharmacy, 1903; College of Agriculture, 1906; School of Forestry, 1906; College of Education, 1908; Graduate School, 1910; College of Business Administration, 1912; School of Journalism, 1915; School of Home Economics, 1933; School of Veterinary Medicine, 1946. The Division of General Extension, now The Georgia Center for Continuing Education, was incorporated into the University July 1, 1947.

In 1931 the General Assembly of Georgia placed all publicly supported schools and colleges, including the University of Georgia, under the jurisdiction of a single board. The organization set up by the Act of 1931 is known as the University System of Georgia and the governing board of the System is called the Board of Regents. The executive officer of the Board of Regents, known as the Chancellor, exercises a general supervisory control over

all institutions of the University System. Each one of the institutions comprising the University System has its own executive officers and faculty.

GROUNDS AND BUILDINGS

The first buildings of the University were constructed in the primeval forest of North Georgia, far distant from any town of consequence. About the University community the town of Athens grew up. Although Athens is now one of the larger and more important cities of the state, it retains much of the beauty and charm of the Old South.

The North Campus of the University lies in the very heart of Athens. On this campus are located buildings that house the College of Arts and Sciences, with the exception of the natural sciences, the School of Law, the School of Pharmacy, the College of Education, the College of Business Administration, and the School of Journalism. Here also are a dining hall and six dormitories for men students. Thirty-three principal buildings are located on this campus. Among these buildings are Old College (1801), New College (1832), Demosthenian Hall (1824), the University Chapel (1832), and Phi Kappa Hall (1834).

Close to the Landscape Architecture Building is the Ladies' Garden Club Founders Memorial Garden, consisting of a series of formal and naturalistic developments.

On the South Campus, which is separated from the North Campus by a wooded ravine, are situated the buildings that house the College of Agriculture, the School of Forestry, the School of Home Economics, the School of Veterinary Medicine, the Georgia Center for Continuing Education and the newly constructed Science Center. One portion of this campus is set aside for buildings that are used by women students. There are thirty-four major buildings on the South Campus.

The campuses of the University and the adjacent lands used by the College of Agriculture and the School of Forestry embrace approximately 3,500 acres.

Names and locations of buildings are shown on the Campus Map in the front of this catalogue.

LIBRARIES

On June 30, 1960, the Libraries of the University contained 405,468 volumes besides many manuscripts, maps, and pamphlets. Material is being constantly added in the support of current teaching and research. During recent years grants from educational foundations and special allocations of funds have contributed to the general strengthening of the collections and to the expansion of resources for graduate study.

The collections of particular value are the famous DeRenne Library of Georgia and southern historical material, containing the original Constitution of the Confederate States; the Moore collection of southern history; the Keith Read Collection of Georgia manuscripts; some early Georgia colonial manuscripts which were once the property of the Earl of Egmont, first president of the Trustees of the Georgia Colony; and the mathematical collection which, as the result of acquiring the 13,000-volume library of the American Mathematical Society in 1951, is one of the best in the country.

The University Libraries serve as a depository for publications of the

United States government and maps issued by the Army Map Service. The document collection has been augmented by acquisition of many publications of the states and by the publications of the League of Nations and of the United Nations.

Current subscriptions are maintained for more than 3,700 periodicals and newspapers. Many of the publications of the important universities and scholarly societies are also received.

In addition to the facilities of the General Library in the Irah Dunlap Little Memorial Library, special services are provided for the College of Agriculture and the Schools of Forestry, Home Economics, Law, and Veterinary Medicine. The Alexander C. King Law Library is located on the second floor of Harold Hirsch Hall and contains approximately 42,000 well-selected volumes. The branch on South Campus houses some 85,000 volumes, and serves the various teaching departments on that campus.

The resources of all branches except Law are catalogued in the General Library and the resources of all units are available on equal terms to the students and faculties of all colleges and schools.

Rules and regulations governing the use of books are designed to achieve the greatest usefulness of the collections to the University community. The stacks are open to both members of the faculty and to students. Most books, except reference works, periodicals, and material used in class assignments, are lent for two weeks.

The main library is open from 8:00 A. M. to 10:30 P. M. Monday through Friday, from 8:00 A.M. to 5:00 P.M. on Saturday, and from 2:00 to 6:00 P.M. on Sunday. While the hours of the branch libraries vary to meet the particular needs of the clientele, they are open approximately the same total time, adequately providing for examination and use of material not available for use outside the building.

LABORATORIES

The new Science Center consists of six buildings housing the Biological Sciences, Chemistry, Physics, Mathematics-Geography and Geology, Food Technology, and Livestock and Poultry. All have laboratories that are well equipped for instruction and original research. There are a number of private laboratories for the use of professors and advanced graduate students. The School of Pharmacy, the College of Agriculture, the School of Forestry, the School of Home Economics, and the School of Veterinary Medicine have extensive laboratory facilities for the use of their students and faculties in their work in the fields of applied science. The College of Business Administration has recently acquired many business machines of the latest type for use in courses in accounting and business procedures. The School of Journalism maintains a press room and radio-television studio as a means of offering practical training to its students.

THE COLLEGE YEAR

The college year is divided into four quarters of approximately eleven weeks each. The fall quarter begins the latter part of September and ends at the Christmas holidays. The winter quarter begins during the first week in January and extends to the middle of March. The spring quarter begins in March and ends in the early part of June. The summer quarter begins in June and closes in the latter part of August. The exact date on which quarters begin and end will be found in the University Calendar.

New courses are begun each quarter. It is possible, therefore, for students to enter the University at the beginning of any quarter.

Degrees are conferred at the close of the spring quarter in June and at the close of the summer quarter in August. Students completing their work in December or March will, on their request, be given a certificate to the effect that all degree requirements have been satisfied. Such students receive their diplomas in June following the completion of their work.

ADMISSIONS

SCHOLASTIC AND PERSONAL REQUIREMENTS

The applicant must be at least sixteen years of age and of established good moral character. The University reserves the right to examine and investigate the moral worth, character, and personality of the applicant.

THE COLLEGE ENTRANCE EXAMINATION BOARD'S SCHOLASTIC APTITUDE TEST is required of all applicants for admission. The results of the test must be filed with the Director of Admissions by the required date. Information about these requirements for each registration period can be secured from the Director of Admissions. The high school principal or counselor will supply the necessary information for making application to take the CEEB Scholastic Aptitude Test, or the applicant may write directly to the College Entrance Examination Board, P. O. Box 592, Princeton, New Jersey.

APPLICATION FOR ADMISSION FORMS WILL BE PROVIDED BY THE DIRECTOR OF ADMISSIONS on request. Completion of all application forms and of all requirements contained therein is mandatory on each applicant before his request for admission can be considered. No application form will be considered unless received at least twenty days prior to the registration date. The University reserves the right to terminate acceptance of application forms when enrollment limits are reached.

Any RESIDENT of Georgia applying for admission to an institution of the University System of Georgia shall be required to submit certificates from two citizens of Georgia, alumni of the institution that he desires to attend, on prescribed forms, which shall certify that each of such alumni is personally acquainted with the applicant, that he is of good moral character, bears a good reputation in the community in which he resides, and, in the opinion of such alumnus, is a fit and suitable person for admission to the institution and able to pursue successfully the courses of study offered by the institution he desires to attend.

Each such applicant shall also submit a certificate from the Ordinary or Clerk of the Superior Court of the county in which the applicant resides that such applicant is a *bona fide* resident of such county, is of good moral character and bears a good reputation in the community in which he resides.

Any NON-RESIDENT of the State applying for admission to an institution of the University System of Georgia shall submit a similar certificate from two alumni of the institution that he desires to attend, or from two reputable citizens of the community in which the applicant resides.

Every such applicant shall also submit a certificate from a judge of a court of record of the county, parish or other political subdivision of the State in which he resides that he is a *bona fide* resident of such county, parish or other political subdivision and a person of good moral character and bears a good reputation in the community in which he resides.

SPECIFIC ADMISSION REQUIREMENTS OF COLLEGES AND SCHOOLS

The applicant must have a minimum of 16 units from an accredited high school and meet the specific requirements of the college or school he wishes to enter. Specific course requirements of the several colleges and schools follow.

College of Arts and Sciences (except Bachelor of Science, Bachelor of Science in Chemistry, and Bachelor of Science in Physics curricula), College of Agriculture (except Bachelor of Science in Agricultural Engineering curriculum), College of Business Administration, College of Education, School of Forestry, School of Home Economics, and School of Journalism.

	Units
Required Subjects	10
English	4
Algebra	1
Other Mathematics	1
Social Studies	2
Science	2
*Optional Subjects from Group A below	4
Optional Subjects from Group B below	2
Total	16

Bachelor of Science, Bachelor of Science in Chemistry, and Bachelor of Science in Physics in the College of Arts and Sciences and Bachelor of Science in Agricultural Engineering in the College of Agriculture.

	Units
Required Subjects	11½
English	4
Algebra and Trigonometry	2½
Plane Geometry	1
Social Studies	2
Science	2
*Optional Subjects from Group A below	4
Optional Subjects from Group B below	1
Total	16½

In 1962 requirements for the above listed Bachelor of Science degrees (Bachelor of Science, Bachelor of Science in Chemistry, Bachelor of Science in Physics, and Bachelor of Science in Agricultural Engineering) will be:

	Units
Required Subjects	12
English	4
Algebra and Trigonometry	3
Plane Geometry	1
Social Studies	2
Chemistry or Physics	½
Other Sciences	1½
*Optional Subjects from Group A below	4
Optional Subjects from Group B below	1
Total	17

*For students who expect to become candidates for a degree in the College of Arts and Sciences two units in a foreign language are advisable.

In 1963 requirements for the above listed Bachelor of Science degrees (Bachelor of Science, Bachelor of Science in Chemistry, Bachelor of Science in Physics, and Bachelor of Science in Agricultural Engineering) will be:

	Units
Required Subjects	12
English	4
Algebra and Trigonometry	3
Plane Geometry	1
Social Studies	2
Chemistry	1½
Physics	1½
Other Sciences	1
*Optional Subjects from Group A below	4
Optional Subjects from Group B below	1
Total	17

OPTIONAL SUBJECTS

Group A	Group B
English	Other subjects for
Foreign Language	which credit is awarded
Mathematics	by accredited high schools.
Science	
Social Studies	

The University reserves the right to reject the credits from any high school or other institution notwithstanding its accredited status, where the University determines either from investigation or otherwise, that the quality of instruction available at such high school or institution is for any reason deficient or unsatisfactory.

The Director of Admissions or the Admissions Committee may take into consideration the overall high school scholastic record, scores made on aptitude and achievement tests, personnel data and personal recommendations in determining a waiver of one or more of the prescribed units, other than English.

Fractional credits of a value of less than one-half unit will not be accepted. Not less than one unit of work will be accepted in a foreign language.

Applicants who qualify under the above unit requirements must have a predicted grade point average (based upon high school record, College Entrance Examination Board scores, and other pertinent data as determined by the Admissions Committee of the University) which indicates that the applicant has the potential to pursue effectively the educational program of the University.

If the application forms, CEEB, Scholastic Aptitude Test scores, and other required records of the applicant are found to be complete and in proper order, the applicant will be evaluated in terms of his predicted grade point average, scholastic aptitude, biographical data, social and psychological adjustment, and the probability of his completing the requirements for the desired degree.

Each applicant must give evidence of good moral character, promise of growth, seriousness of purpose, and a sense of social responsibility. The University reserves the right, in every case, to reject any applicant whose general records and attitude do not indicate success in the University environment, notwithstanding the completion of other requirements. The

*For students who expect to become candidates for a degree in the College of Arts and Sciences two units in a foreign language are advisable.

University reserves the right to examine further any applicant extensively by the use of psychological, achievement, aptitude tests, and personal interview.

Credit toward graduation may be given to students qualified for exemption from freshman courses.

AN APPLICANT MAY BE ADMITTED BY PRESENTING A STATE DEPARTMENT OF EDUCATION CERTIFICATE OF HIGH SCHOOL EQUIVALENCY OR BY PASSING ENTRANCE EXAMINATIONS These methods of admission are confined to persons over 21 years of age and to veterans whose secondary schooling was interrupted by military service. In general, the General Educational Development Tests, High School Level, will be used as a testing measure under this section. *No student having attended secondary school during the previous twelve months will be eligible for admission by this method.*

The Admissions Committee and/or the academic dean shall review any application directed to them by the Director of Admissions for total study and subsequent recommendation to the Director of Admissions.

Acceptance or rejection of each and every application will be determined by the Director of Admissions, subject to the right of appeal as provided in the Statutes of the University of Georgia and the Board of Regents of the University System.

TRANSFER STUDENTS

Transfer students must comply with the foregoing regulations relative to the admission procedures, requirements, and dates for filing the completed application with the Office of the Director of Admissions.

Transfer applicants must comply with the policy of the Board of Regents in furnishing the certificate described in the University catalogue, and included in the official application for admission form.

The applicant must request that official transcripts showing evidence of studies pursued at all other colleges or universities be sent to the Director of Admissions. These transcripts must furnish a statement of honorable dismissal. Completion of ALL application forms is required of each applicant for admission by transfer from another institution before his request for admission can be considered. It should be understood that only those applicants will be admitted whose past records indicate a favorable prospect of successful study with the faculty and with the other students in the University. Every transfer student seeking admission will be evaluated for aptitude, achievement, motivation, social and psychological adjustment, and scholastic performance and probability of completing the requirements for a degree. The University reserves the right to examine further any applicant extensively by the use of psychological, achievement, aptitude tests, and personal interview.

Comprehensive-achievement tests will be required of students entering the Junior class.

The University reserves the right to deny admission to any student applying for transfer to the University when, in the opinion of the Director of Admissions, the academic standards or the admission procedures of any institution previously attended are not equivalent or comparable to those existing at the University.

When a transfer applicant's qualifications are in question, the Director of Admissions, at his discretion, will refer the application in totality to the appropriate academic dean and/or the Admissions Committee for review and recommendations.

Acceptance or rejection of each and every application will be determined by the Director of Admissions, subject to the right of appeal as provided in the by-laws of the University of Georgia and the Board of Regents of the University System.

Courses transferred for credit from other colleges or universities must have an over-all grade average of "C". The University reserves the right to limit the amount of transfer credit for courses with the lowest passing grade. Under no circumstances will credit be allowed for courses in freshman English unless the grades received average "C" (73) or better. College credit will not be allowed for such courses as remedial English and remedial mathematics or courses basically of secondary school level.

Credit for specific courses designated as "core curriculum" or "major" courses will not be allowed unless grades received are above the lowest passing grade.

The total number of hours that may be earned toward a degree by either extension or correspondence courses or both shall not exceed one-fourth of the hours required for graduation. The University reserves the right to otherwise restrict the acceptance of the above mentioned type credits.

A student who has been dropped from another institution because of poor scholarship or for disciplinary reasons may not enter the University until such time as he has returned to his former institution and/or has been removed from probation.

The amount of credit that the University will allow for work done in another institution within a given period of time may not exceed the normal amount of credit that could have been earned at the University during that time. A maximum of 96 academic quarter hours from a junior college, or 141 academic quarter hours from a senior college may be applied toward a degree; however, most programs require a minimum of 90 quarter hours in residence.

Transfer students shall be allowed to transfer not more than 20 percent of the hours transferred in D grades, provided that said students' overall grade average for the hours transferred is C or better. Credit for courses with the lowest passing grade may be given upon successful completion of a validating examination taken during the first quarter of residence. Application to take these examinations should be made to the Registrar.

Ten quarter hours of English composition with an average grade of C (73) is required for all undergraduate degrees from the University of Georgia. (This applies to all students entering in September, 1956 and thereafter).

The General Educational Development Tests, College Level, will be administered to veterans at the University Guidance Center in accordance with University regulations. Students with no previous college work should apply directly to the Director of the Center after admission is granted and prior to registration. Students with previous college work must apply for permission to take these tests through the Registrar. In general, this permission will not be granted if work has been pursued in the field or a related field of the subject area involved on the individual tests.

United States Armed Forces Institute (USAFI) courses are not recognized by the University unless they are completed through an accredited institution and provided that that institution grants recognized college credit for same. Such courses are regular correspondence courses and are administered under the Cooperating College Program of USAFI.

Inquiries concerning In-Service training should be directed to the Registrar. Evaluations of this training will not be made until such time as the student registers for residence credit on the University Campus.

GRADUATE AND PROFESSIONAL STUDENTS

Professional and graduate programs will have requirements in addition to those stated above. The interested applicant is directed to the appropriate sections of the catalogue.

The University reserves the right to reject any applicant whose low record indicates that he is not adequately prepared to do college work even though he may meet the entrance requirements set forth above.

INITIAL ADMISSION REQUIREMENTS FOR CERTAIN AGES

State law restricts the initial admission to the undergraduate programs of applicants who have reached twenty-one (21) years of age and restricts the initial admission to the graduate and professional programs of applicants who have reached twenty-five (25) years of age. Certain veterans, teachers, and those in certain other categories specified by the Board of Regents are exempt from this provision.

IRREGULAR STUDENTS

The policy of the University is not to allow students who can meet the entrance requirements (especially those under 21 years of age) to take irregular programs of work. Students who are granted special permission to pursue such a program will be classified as irregular students.

CHOICE OF SCHOOL OR COLLEGE

For a full explanation of each of the divisions of the University consult the section of the catalogue referring to that particular college or school. A student should register in the school or college in which his major interest lies.

If a student is undecided on his college or school, he should register in the College of Arts and Sciences.

In order to transfer from one school or college to another it is necessary to secure permission of the dean in whose school the student is enrolled and the permission of the dean of the school to which he expects to transfer.

DEGREES OFFERED BY COLLEGES AND SCHOOLS OF THE UNIVERSITY

The University offers courses of instruction leading to the following degrees:

1. In the Graduate School the advanced general degrees of Master of Arts, Master of Science, and Doctor of Philosophy and the advanced professional degrees of Master of Business Administration, Master of Chemistry, Master of Education, Master of Forestry, Master of Home Economics, Master of Art Education, Master of Music Education, Master of Landscape Architecture, Master of Laws, Master of Fine Arts, and Doctor of Education.

2. In the College of Arts and Sciences, the degrees of Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Music, Bachelor of Science, Bachelor of Science in Chemistry, and Bachelor of Science in Physics.

3. In the School of Law, the degree of Bachelor of Laws.

4. In the School of Pharmacy, the degree of Bachelor of Science in Pharmacy.

5. In the College of Agriculture, the degrees of Bachelor of Science in Agriculture, Bachelor of Science in Agricultural Engineering, Bachelor of Science in Landscape Architecture, and Bachelor of Landscape Architecture.

6. In the School of Forestry, the degree of Bachelor of Science in Forestry.

7. In the College of Education, the degree of Bachelor of Science in Education.

8. In the College of Business Administration, the degree of Bachelor of Business Administration.

9. In the School of Journalism, the degree of Bachelor of Arts in Journalism.

10. In the School of Home Economics, the degree of Bachelor of Science in Home Economics.

11. In the School of Veterinary Medicine, the degree of Doctor of Veterinary Medicine.

A student who satisfactorily completes advanced Military or Air Science may be awarded a commission as Second Lieutenant in the U. S. Army or U. S. Air Force in conjunction with the degree.

A graduate of any course may receive the baccalaureate degree of any other course by completing the additional studies required in that course and by meeting residence requirements for the second baccalaureate degree.

REGISTRATION AND PENALTIES FOR LATE REGISTRATION

A student who fails to register on the days set aside for that purpose will be subject to the following penalties: For the first day beyond the scheduled dates, \$5 and for each succeeding day up to and including the fourth day, \$2; or a total of \$11.

No student will be admitted, except by special permission, after the expiration of the fifth day beyond the scheduled registration days.

An applicant for admission whose credentials have been passed upon favorably by the Director of Admissions should present himself at the Registrar's office. The applicant will receive from the Registrar a statement showing the procedure for registration. A student will not be permitted to attend classes in a course for which he is not registered.

PHYSICAL EXAMINATIONS

All new students (freshmen, transfers and former students who have been absent from the University for over three quarters) must have a fully completed physical examination form on file with the Department of Student Health at least ten days prior to registration.

The physical examination performed by the student's family physician within three months prior to registration should include a report of a tuberculin test or x-ray of chest. Only if the tuberculin test is positive, is an x-ray of chest required. The opinion of the examining physician as

to physical capability of student to participate in ROTC and/or Physical Education is desired.

Those students entering for summer session only are not required to submit physical examination forms.

The University Registrar will send the physical examination blanks with the notification of acceptance for admission. After the student's family physician has fully completed these forms they must be mailed to the Department of Student Health, Gilbert Memorial Infirmary.

FRESHMAN REGISTRATION

The opening week of the fall quarter registration period in September is called "Orientation Week." It is a period designed to introduce freshmen to the University. This period will be devoted to aptitude tests, lectures, conferences with advisers, introduction to campus activities, and registration. This week is set aside for new students who attend all scheduled events.

PLACEMENT EXAMINATIONS

These tests are required of all students with less than sophomore classification (40 academic hours exclusive of Physical Education and Basic Military). All students taking these tests late will be charged a late test fee of \$3 for each session missed.

HOUSING FOR STUDENTS

Residence halls situated on the University campus accommodate approximately thirty-nine hundred students. Additional housing facilities at fraternity and sorority houses, religious student centers, YMCA and YWCA are also available to students. Private homes and boarding houses list available space for single and married students with the University Housing Offices. The University does not reserve this housing since arrangements for these units are made by personal interview between house owners and the individual applicant. All communications on housing should be addressed to Director of Men's Housing or Director of Women's Housing.

RESIDENCE HALLS FOR MEN

An advance room reservation fee of \$25 is required of all students for the Fall Quarter, but is not required for other quarters unless the student is entering for the first time. **DO NOT SEND CASH.** Make check or money order payable to the University of Georgia Housing Department and attach it to your application for housing. This reservation fee is not refundable, but will be deducted from room charges payable at time of registration.

If a student does not appear to occupy a room, or if official notification of a delay is not filed within the first five days of a quarter, the University reserves the right to cancel the reservation and to assign the room to another student. Once a University student accepts a dormitory assignment, he is obligated for the full quarter's rent, and he is expected to occupy the room for the entire quarter. Failure to occupy the room for the full quarter or any portion thereof does not release him from this obligation.

All freshmen, excluding veterans, married men, and those living with their parents or relatives, are required to live for one year in a dormitory, under the supervision of the Resident Counselor for Freshman Men.

The room rate on dormitories on North Campus listed below is \$76 to \$80 per quarter and for South Campus \$66 to \$80 per quarter including flat work laundry. The laundry is picked up from the dormitory and returned once a week. Optional laundry consisting of wearing apparel is offered at an additional charge.

All rates are based on occupancy of two or more students per room. Rate for single occupancy if available will be an additional \$25 per quarter. The Director of Housing reserves the privilege of granting or assigning single occupancy.

NORTH CAMPUS Dormitories are Joe Brown Hall, Law-Graduate, Milledge Hall, Payne Hall, Reed Hall and dormitories D and E on Baxter Street. Convenient dining facilities are at Memorial Hall. Rate for meals is approximately \$133 per quarter.

SOUTH CAMPUS Dormitories are Dudley Hall, Fain Hall, Griggs Hall and dormitory F. Convenient dining facilities are at Snelling Hall. Rate for meals is approximately \$133 per quarter.

RESIDENCE HALLS FOR WOMEN

The importance of convenient and suitable living arrangements for women students is fully realized by the University, which provides residence halls for all women students not living in town with their families. Women students are required to live in University residences. The only exceptions are: Married students, graduate students, those living with close relatives and those who are 23 years of age who have parental permission and a clear conduct record.

A housing preference form will accompany the official acceptance notice from the Director of Admissions. A full quarter's room rent in the amount of \$80 is payable in advance, which includes flat work laundry fee of \$7. The fee is payable by check or money order to the order of the University of Georgia, and must be attached to the Housing Preference Form. **DO NOT SEND CASH.** The University of Georgia is not responsible for room deposits by cash. **NO DORMITORY ASSIGNMENT CAN BE MADE UNTIL THIS PAYMENT HAS BEEN RECEIVED.** Only \$55 of this payment is refundable, provided the student cancels prior to July 1 preceding the fall quarter; the remaining \$25 is not refundable. No refunds will be made for cancellations received after July 1, preceding the fall quarter, or after December 10 preceding the winter quarter, or after March 5 preceding the spring quarter. Notice of withdrawal of room assignments with request for refund must be given in writing to the Director of Women's Housing.

If a student does not appear to occupy a room, or if official notification of a delay is not filed within the first five days of a quarter, the University reserves the right to cancel the reservation and to assign the room to another student.

CLARK HOWELL HALL, MARY LYNDON HALL, RUTHERFORD HALL, AND SOULE HALL, located on South Campus and LUCY COBB, have accommodations for 197, 148, 156, 116, and 104 women students, respectively.

DORMITORIES A, B, AND C in the new Lumpkin Street dormitory housing center each accommodate 166 students.

JENNIE BELLE MYERS HALL is divided into three separate units. North Myers will accommodate 159 students; South Myers will accommodate 163 students; and Center Myers will accommodate 158 students.

THE ROOM RATE for women's dormitories is \$80 per quarter including flat work laundry. Laundry allowance per week for women is one spread, two sheets, one pillow case, six towels and two wash cloths.

All rates are based on occupancy of two or more students per room. Rate for a private bath will be an additional \$10 per quarter. Rate for those occupying suites will be an additional \$5 per quarter. The Director of Housing reserves the privilege of granting or assigning single occupancy.

DINING FACILITIES are conveniently located. All freshman women students residing in University residence halls will have their meals in University dining halls. The rate for meals is approximately \$133 per quarter and will be added to charges at registration.

DORMITORY FACILITIES FOR MEN AND WOMEN STUDENTS. University operated residence halls are open at 10 A. M. the morning of the day prior to the first day of registration and are closed at 10 A. M. the day following the last scheduled date of examinations at the end of a quarter.

The University can not assume responsibility for valuables kept in the student's room.

All rooms in the residence halls are furnished with single beds or double deckers, chairs, study tables, clothes cabinet or closet, and dressers or chest of drawers. Students are expected to furnish pillows, bed linens, blankets, and towels. It is suggested that students bring study lamps, dresser scarfs, and small rugs. Use of extra electrical appliances such as pressing irons, hot plates, heaters, etc., is not allowed in student rooms.

HOUSING FOR MARRIED STUDENTS. Apartments for married students are provided on the University campus, 37 units for married students without children, and 223 units for those with children. These units include efficiency apartments, one-, two- and three-bedroom prefabricated units. Assignments to these units are made from a waiting list which is established according to date of the married housing application filed with Director of Men's Housing. Prefabs, including water, rent for \$25 to \$32 per month unfurnished and \$29 to \$40 per month furnished. Applications for housing for married students may be made before official acceptance by requesting married housing form from Director of Men's Housing.

DINING HALL. There are two University-operated dining halls situated conveniently to serve all the resident students. Each dining hall is supervised by a trained dietitian.

LAUNDRY SERVICE. The University operates a laundry as a convenience to its students and as a safeguard to their health. The quarterly charge made for dormitories includes the cost of flat work laundry.

ROOM AND BOARD REFUNDS. A student withdrawing from the University will be charged a daily rate for room and board from the beginning of the quarter to the date of withdrawal. After deductions for these charges have been made, the balance of the student's payments will be refunded to him at the end of the quarter. No refund of matriculation and room fees is made in case of a disciplinary suspension.

Payments for room and board will not be refunded to a student who, while continuing as a student in the University, moves to a private home or to a sorority or fraternity house, or who ignores a room assignment.

ROOM AND BOARD IN FRATERNITY AND SORORITY HOUSES. The majority of the local chapters of fraternity and sorority organizations at the University maintain a house which provides room and board for its members. There are sixteen sororities and twenty-five fraternities at the University.

All fraternity and sorority houses are under the general supervision of the office of the Dean of Students and his associates. All sorority houses and several of the fraternity houses have house directors who exercise an immediate supervision over the activities of the houses. Only those women students who have lived on the campus for at least one quarter and who are of sophomore standing or above will be permitted to live in sorority house.

RESERVATION OF RIGHT TO CHANGE FEES AND REGULATIONS. The University reserves the right to make changes in its fees, charges, rules and regulations at the beginning of any quarter and without previous notice. This right will be exercised cautiously.

PROGRAMS FOR VETERANS AND WAR ORPHANS

The University has a Veterans Division which advises with former service men and women eligible for educational benefits under Public Law 894 or Public Law 550, and War Orphans eligible for benefits under Public Law 634. Public Law 894 assists disabled veterans, and Public Law 550 provides for veterans who entered the Service prior to January 31, 1955, and who initiated a program of education before the delimiting date, which is three years after release from the service. Veterans entering the University for the first time under Public Law 550 should secure a Certificate for Education and Training from the Veterans Administration. Public Law 634 provides for children of veterans who died of a disease or injury incurred or aggravated in line of duty in active military service in World War I, World War II, or the Korean War. Eligible persons should secure a Certificate for a Program of Education from the Veterans Administration.

The University has provided a Director to assist veterans and war orphans in securing admission to the University of Georgia and in counseling with them about personal matters and problems. The veteran or war orphan is advised to have available \$250 to cover expenses for the first quarter as government subsistence checks will not arrive for two or three months after training begins.

ACADEMIC REGULATIONS

UNITS OF CREDIT

The unit of credit is the quarter hour. A quarter hour represents one hour of class work per week for one quarter or its equivalent in other forms of instruction. Two or sometimes three hours of laboratory work are considered as the equivalent of one hour of class work. The majority of the courses offered in the University meet five times per week for one quarter; such courses carry a credit of five quarter hours.

GRADING SYSTEM

Quarter grades are reported by alphabetical letter only, although they are commonly based on averages of numerical grades given on daily work and final examinations. In figuring numerical averages the Registrar's Office uses the digit 8 for + grades and 3 for the letter only. The scale of letter grades is as follows:

A+	95-100	Exceptional
A	90- 94	Excellent
B+	85- 89	Very Good
B	80- 84	Good
C+	75- 79	Average
C	70- 74	Fair
D+	65- 69	Poor
D	60- 64	Very Poor
E	Condition	
F	Failure	
I	Incomplete. This grade indicates that a student although doing satisfactory work was, for some reason beyond his control, unable to complete the course.	
W	This grade indicates that the student was permitted to withdraw from the course and that no grade was assigned.	
WF	This grade indicates that the student was permitted to withdraw from the course while doing unsatisfactory work. The dropping of a course under these circumstances is equivalent to a failure.	

CHANGE IN GRADES

A grade in a course reported by the instructor to the Registrar and recorded cannot be changed except in the following circumstances:

E may be changed to D if so reported by the instructor within twelve months.

I may be changed to any grade if so reported by the instructor within twelve months.

Any grade will be changed upon a written statement by the instructor that the grade reported was a factual error.

A senior in line for graduation who makes a grade of F or D in his senior year in a course numbered 200 or above necessary for his degree will have the privilege of one re-examination, provided there is no opportunity to repeat the course. Grades in not more than two courses may be thus changed. Permits for a re-examination should be obtained from the Registrar's Office.

CLASSIFICATION OF STUDENTS

In the undergraduate schools and colleges of the University a student will be classified as a freshman, sophomore, junior, or senior, according to the number of quarter academic hours of work he has completed with an average grade of C or better. A student who has completed less than 40 hours of the number of hours required for graduation will be classified as a freshman. A student will be entitled to register as a sophomore when he has completed at least 40 hours; as a junior when he has completed at least 85 hours; and as a senior when he has completed at least 130 hours.

The classification under which a student registers at the beginning of the academic year will continue throughout that year.

REGISTRATION FOR COURSES. Any student classified as a junior or senior must give priority at registration to all uncompleted freshman and sophomore courses required for his degree before continuing the major subjects or electives.

COURSE NUMBERS

Courses numbered from 1 to 99 are either non-credit or remedial courses; those numbered from 100 to 199 are designed for freshman and sophomore (junior division) students; those numbered 200 to 299 are mainly sophomore courses but, in special instances when justified by course and curricular requirements, may be given senior division (junior and senior) classification. Courses numbered 300 to 399 are offered primarily for junior and senior students; courses taken by juniors and seniors along with graduate students carry the numbers 400 to 599 for undergraduate and 600 to 799 for graduate students. Courses numbered 800 to 999 are offered only for graduate students.

With the approval of the dean of his college or school, a student may include in his sophomore program as much as one-third of his work in courses falling within the junior-senior group; with the same approval a student may include in his junior-senior program as much as one-third of his work in courses falling within the freshman-sophomore group.

NORMAL LOAD OF WORK

The normal load of work for freshman and sophomore students is 15 hours per quarter, exclusive of Military Science 1-2 or Air Science 5-6, and Physical Education 1-2. The normal load of work for junior and senior students is 15 hours per quarter except where otherwise stated in the published degree requirements. Veterans must carry 14 hours per quarter to draw full subsistence.

VARIATION FROM THE NORMAL LOAD OF WORK

The dean of a school or college may, at his discretion, authorize the following variations from the normal work load:

1. A minimum load of 10 hours. Except in special cases, a student will not be permitted to drop to a load less than 15 hours. A student who drops to less than 15 hours after the first five days of a quarter will normally receive a grade of WF in the course or courses dropped.
2. An increase of from 1 to 3 hours; (1) When advanced military science is taken or when difficulty in making a practical schedule or a satisfactory program demands it; (2) students who had an average of B on the work of the three preceding quarters may have this privilege during the succeeding three quarters; (3) students who had an average of B in the preceding quarter may have this privilege the succeeding quarter.
3. A maximum of 21 hours may be permitted: (1) students on the current Dean's List; (2) students not on the Dean's List but who had an average of "A" on the work of the preceding quarter; (3) first year transfer students who received an average grade of "A" on their last year's work in the institution from which they transferred; (4) students having 90 academic hours credit with no grade lower than "C" for the preceding quarter and having no "F," "WF," "E," or unremoved "I" for the preceding three quarters. (No student with less than 15 hours in residence is eligible.)
4. An increase of 10 hours (distributed over their last three quarters) for seniors who, at the beginning of any quarter, can, with this privilege, be graduated in three quarters.

Under no circumstances is any student permitted to receive credit for more than 21 hours per quarter, exclusive of Military Science 1-2, Air Science 5-6, or Physical Education 1-2.

DEGREE REQUIREMENTS

RESIDENCE. The minimum residence requirement for a baccalaureate degree is 90 quarter hours. Exceptions to this requirement may be made under special circumstances upon the recommendation of the curriculum committee of the school or college and with the approval of the Faculty Executive Committee.

Students who present acceptable college credits earned before September 1960, or who are enrolled for a second baccalaureate degree, may satisfy the residence requirements by completing in residence 45 hours in courses numbered 200 and above with an average grade of "C" or better.

If a student elects to satisfy the requirement for the B.S. degree by substituting the first year's work in the Medical College of Georgia or the Georgia Institute of Technology for his last year's work in the University, the residence requirement is 45 quarter hours, 30 quarter hours of which must be in courses numbered 200 and above taken after admission to senior division standing.

CREDITS AND GRADES. Each candidate for a degree must secure credit in approved courses totaling at least the number of quarter hours required for a degree by the school or college in which he is registered, exclusive of courses in Military Science 1-2 or Air Science 5-6, and Physical Education 1-2. In securing this credit each candidate must have an average grade of not less than "C" in all grades received, excluding those in Physical Education 1-2, and must not have grades below "C" in more than one-fourth of the total number of quarter hours earned.

Ten quarter hours of English composition with an average grade of C is required for all undergraduate degrees from The University of Georgia. (This applies to all students entering in September 1956 and thereafter).

Students inadequate in English composition must repeat English 101. Students who fail English 101 are required to repeat it the following quarter or as soon thereafter as possible.

The College of Arts and Sciences and several other colleges and schools require for graduation 185 quarter hours, exclusive of Military Science 1-2 or Air Science 5-6 and Physical Education 1-2. Some of the schools require a larger number of hours. Under the sections devoted to the several colleges and schools will be found statements of their exact requirements.

CORRESPONDENCE AND EXTENSION WORK. Not more than one-fourth of the work counted toward a degree may consist of courses taken by correspondence or extension.

MILITARY AND AIR SCIENCE. All physically qualified freshmen male students must enroll in and complete two years of basic ROTC with the exception of veterans, non-citizens, and those otherwise exempted. The basic courses are Military Science 1-2 or Air Science 5-6. Having initiated basic ROTC at the University or at another college, the student is responsible for the completion of six quarters of basic ROTC.

PHYSICAL EDUCATION. All non-veteran freshman and sophomore men and all freshman and sophomore women are required to complete with passing grades, Physical Education 1 and 2. Students physically or organically handicapped will be assigned to special Physical Education classes. Students who enter the University with Senior division standing and who have ful-

filled the physical education requirements of the institution from which they transferred will not be required to take Physical Education 1 and 2.

EXAMINATIONS ON THE CONSTITUTIONS. Examinations on the Constitution of the United States and that of the State of Georgia, required of all persons receiving a degree from the University unless exempted by credit in courses dealing with these Constitutions, are given annually on the first Thursday after Washington's birthday and the first Thursday after the Fourth of July, at 3:30 in LeConte Hall. A series of lectures to aid students in preparing for these examinations is offered during the two weeks preceding the examination in February. Special examinations for students having failed on or been absent from the regular examinations are offered on the first Thursday in May and the first Thursday in November, and in exceptional cases upon other dates.

EXAMINATIONS ON UNITED STATES AND GEORGIA HISTORY. Examinations on the history of the United States and of Georgia are required of all persons receiving a degree from the University unless exempted by credit in courses dealing with this history. These examinations are ordinarily given with the freshman placement tests at the beginning of each fall quarter. Also, this requirement may be satisfied by registering for History 100 and passing the final examination in it. This course carries five hours credit.

SPECIAL REQUIREMENTS. Candidates for degrees from the University must show that they have met all general University requirements with respect to such matters as registration and payment of fees and the special requirements of the colleges or schools in which they have been registered as students.

All candidates for degrees should check with the Registrar and dean of their school or college their program for graduation three quarters prior to the date of graduation. Students who fail to perform this duty will forfeit any equity in the adjustment of errors or omissions made in their programs.

A candidate for a degree, unless excused in writing by the secretary of the faculty, must attend the graduation exercises at which he expects a degree to be conferred upon him.

The University reserves the right to withhold the diploma of a student who has completed all academic requirements if he is guilty of conduct which is morally reprehensible or is of such disorderly nature that could have been disciplined by expulsion.

MISCELLANEOUS REGULATIONS

STUDENT CARS. Freshmen students are not permitted to have or to drive automobiles during their first year at the University. A student on scholastic probation may not have or drive an automobile in Clarke County.

HIGH SCHOOL SUBJECTS NOT TO BE DUPLICATED. No University credit will be granted for work in mathematics or other courses, except for the special provision applicable to foreign languages, taken at the University when such work is a repetition of studies already completed in high school. A student continuing a foreign language taken in high school will be placed in the appropriate course on the basis of placement tests and other pertinent information.

FORFEITURE OF CREDIT. By registering for a course for which he has already received credit either by work at the University or by transfer of credits from another institution, a student forfeits the previous credit in

that course. The student's final grade in the course will be the one made on the repetition.

NO EXTENSION WORK BY RESIDENCE STUDENTS. Extension or correspondence work for University credit may not be taken by a student while registered as a resident student, except in extraordinary cases and when authorized by the dean of the college or school as a part of the student's normal load of work.

CHANGES IN COURSES. Changes in a student's program of courses may be made only with the approval of the dean of the college or school in which the student is registered. Changes will not be permitted unless requested during the first four days of the quarter. A service fee of \$2 may be assessed for each change, though no charge will be imposed for changes made necessary by University regulations.

DROPPING OF COURSES. A student may not drop a course without the permission of the dean of his college or school. Veterans must notify the Director of the Veterans Division.

ADMISSION TO EXAMINATION IN A COURSE TAKEN IN THE UNIVERSITY. No student who has not registered for the course will be admitted to the final examination, and only under extraordinary circumstances will he be admitted to the examination unless he has attended at least 50 per cent of the total class and laboratory exercises held in the course.

SPECIAL COURSE IN READING AND STUDY SKILLS, DESIGNATED PSYCHOLOGY 99. This course is required of all freshmen designated on the basis of Placement Tests. Designated freshmen will not be admitted to second quarter of freshman English until satisfactory completion of this course is reported by the instructor. With the approval of the instructor, students not included on this list, but referred by faculty members, may register for the course. Such students will not exceed one-fourth the size of the class.

CLASS ATTENDANCE. All students are expected to attend regularly the meetings of classes in courses for which they are registered. A student who incurs an excessive number of absences may be placed on probation or dismissed from the University.

ABSENCES FROM CLASSES BEFORE AND AFTER HOLIDAYS. A student who is absent from any class or regular University exercise on the day before or the day after a holiday period and who has no valid excuse for such absence may be required to pay to the University treasurer a fine of \$2 for each of the days on which an absence occurred. Validity of the excuse will be determined by the registrar.

STUDENT CONDUCT. A student is expected to show under all circumstances a proper respect for order, morality, and the rights of others, and such sense of personal honor as is demanded of good citizens.

SOCIAL PROBATION. For any serious or repeated infraction of regulations, a student or group may be placed on social probation which indicates that any further infraction of regulations may cause suspension from the University.

The University reserves the right to exclude at any time students whose conduct is deemed improper or prejudicial to the interests of the University community.

WITHDRAWAL FROM THE UNIVERSITY. No student is permitted to withdraw from the University after registration for a term without notifying the Dean of Men or Dean of Women, who shall notify the Registrar and the student's parents. Veterans receiving allowances under any of the acts

of Congress must also notify the Director of the Veterans Division. Refunds will be based on the date of such notification.

A student against whom charges are pending will not be permitted to withdraw from the University until such charges shall have been adjudicated.

In general a student voluntarily withdrawing may return later if scholastically eligible.

REPORTS TO PARENTS. At the close of each quarter reports of students' grades will be mailed to parents or guardians. In the case of freshmen, a report will be made at the end of the first six weeks of the fall quarter.

Reports will also be made to the parent regarding any official action that has the effect of placing a student on probation or of excluding him from the University.

SCHOLASTIC PROBATION AND DISMISSAL

PROBATION. A student who fails to pass in any quarter at least 10 hours* of work, with a grade of "C" or better, shall be placed on scholastic probation for his next quarter in residence. A student remains on scholastic probation until he passes 15 quarter hours* of work with a "C" or better grade in at least 10 hours during one quarter. No student will be credited with the completion of the requirements for graduation while on probation unless he passes every course taken during that quarter. A student who is on probation shall not be allowed to register for a Fall Quarter. Students on scholastic probation may not have or drive an automobile in Athens.

DISMISSAL. A student shall be dismissed if (1) he fails to pass 5 hours of academic work in a quarter, (2) if he is on probation and fails to pass 10 academic hours of work in a quarter, or (3) if he is on probation for two quarters and fails to remove himself from probation during the second probational quarter. In the administration of these rules, a student who is dismissed for the first time may, with the approval of his Dean and upon satisfactory completion of readmission tests at the University Guidance Center, return on probation any quarter except a Fall Quarter.

If under the operation of these rules a student should be dismissed a second time, such student may not again be admitted as a candidate for a degree. This regulation shall not, however, constitute a bar to said student's admission to particular courses after the lapse of a time interval sufficient to obtain evidence that his scholastic disabilities have been overcome.

Students who decline, after consultation with appropriate ROTC and University officials, to fulfill the terms of their ROTC deferment agreements pertaining to undergraduate work at the institution will be permanently dismissed immediately.

ADMISSION TO ANOTHER COLLEGE OR SCHOOL. A student dismissed from a college or school may not transfer to another college or school until after the expiration of his period of dismissal, and then only with the consent of the deans of the two colleges or schools involved. The dean of the college to which admission is sought should take the initiative in the matter of transfer by conferring with the dean of the college from which the student was dismissed.

COUNSELING. Every quarter students with poor scholastic records should be advised that unless their record improves markedly in the next quarter

*Exclusive of basic military or air science and physical education.

they should withdraw from the University. Such students should be warned that they may be dismissed.

ELIGIBILITY FOR STUDENT ACTIVITIES. A student who is on scholastic probation is not eligible for participation in any extra-curricular activity or to represent the University or student body in any official capacity. This includes members or managers of athletic teams, debating teams, glee clubs, dramatic clubs, student publications, campus leaders, officers of the fraternity and sorority council, officers of student government, officers of any other activities, which, in the judgment of the Director of Student Activities, should be included. A student who is ineligible because of a conditional grade which placed him on probation may become eligible by removing this conditional grade. Students on conduct probation are ineligible to participate in such activities as those above mentioned.

HONORS

The University strives to promote excellence in scholarship by giving official recognition to those students whose scholastic work is of a superior character. It also recognizes outstanding ability speaking, writing, and other forms of scholarly activity.

GRADUATION WITH HONORS

The University awards degrees with honors to candidates who achieve specified scholastic records. Not more than 45 quarter hours taken at other institutions may be applied to the degree with honors requirements. The specified scholastic records and honors are: cum laude for an average of 90.0 to 92.9; magna cum laude for an average of 93.0 or better; summa cum laude for a record with all grades of A or A+.

INDEPENDENT STUDY

A junior or senior student of superior scholastic standing who wishes to pursue independent study in a particular subject may do so upon the recommendation of his major professor and the approval of the Executive Committee of the College of Arts and Sciences.

VALEDICTORIAN

Not more than 45 quarter hours taken at other institutions may be used in determining eligibility for valedictorian. The student with the highest academic average at the University is named valedictorian of his class.

HONOR FRATERNITIES AND SOCIETIES

Several honor fraternities and societies at the University extend recognition to students on the basis of scholarship and good character. There are chapters of Phi Beta Kappa, Sigma Xi, Phi Kappa Phi, and of many college, school, and departmental honor societies. Membership in these societies is highly prized in educational circles.

HONOR LIST

Near the close of the college year, an Honor List is made up for all classes on the basis of the work of the year. The first group on this list constitutes the Dean's list and consists of those who have made an average

grade of 90 or whose grades place them in the upper five per cent of their class. The second group in the Honor List consists of those whose grades place them in the upper ten per cent of their class but whose names are not included in the Dean's List. In the case of freshmen and sophomores, the Honor List is made on the basis of the total enrollment in all of the schools and colleges of the University.

One day of each year is set aside as an occasion for according special recognition to those students whose names appear on the Honor List and those who have been elected to the Phi Beta Kappa, Phi Kappa Phi, Sigma Xi, or who have obtained other scholastic honors.

UNDERGRADUATE SCHOLARSHIPS, HONORS, AWARDS AND PRIZES

Unless otherwise specified these scholarships, honors, awards, and prizes are open to both men and women. Scholarships available to entering Freshmen are preceded by an asterisk (*).

BURKE DOWLING ADAMS ADVERTISING SCHOLARSHIP. A tuition scholarship covering three quarters open to juniors and seniors majoring in advertising in the School of Journalism. Apply to Dean of School of Journalism.

AGRICULTURAL ENGINEERING FACULTY AWARD. Each year the faculty of the Department of Agricultural Engineering gives special recognition to those students in the department whose accomplishments have been outstanding. The awards are made on the basis of scholastic attainment, character, and leadership. The names of those selected are engraved on a bronze plaque. Each student selected receives a one-year membership in the American Society of Agricultural Engineers.

ALPHA GAMMA RHO SCHOLARSHIP. This award of \$200 is made to a Freshman boy in agriculture, forestry, veterinary medicine, agricultural engineering, or agricultural education and is given to the 4-H boy ranking highest in scholarship from the candidates nominated annually by each State 4-H Club Leader.

ALPHA KAPPA PSI SCHOLARSHIP KEY. The Alpha Kappa Psi national commerce fraternity awards annually a scholarship key to the male graduating senior in the College of Business Administration who has the highest scholastic average for four years of college work, at least two years of which must have been done at the University of Georgia.

ALPHA LAMBDA DELTA AWARD. Each year National Alpha Lambda Delta gives a book of outstanding value to the member of Alpha Lambda Delta who has held the highest average during eleven quarters at the University of Georgia.

THE AMERICAN FOUNDATION FOR PHARMACEUTICAL EDUCATION offers two scholarships of the value of \$50 each per quarter, or \$200 each per year of four quarters. These scholarships are awarded to men and women in the upper one-third of the graduating class who are in need of financial assistance and who can present proper letters of recommendations. For information on these scholarships, prospective applicants should write the Dean of the School of Pharmacy.

ART ADVANCEMENT FUND. A limited number of scholarships are awarded annually from the Fund for the Advancement of Art. The recipients of the awards are selected by a committee composed of members of the art faculty and a representative of the students.

ATHENS BUSINESSMEN'S SCHOLARSHIP. Tuition scholarship for Athens resident.

***ATLANTA FEDERAL SAVINGS SCHOLARSHIP.** Two annual awards of \$500 each to graduates of Atlanta and Fulton County High Schools. One scholarship to freshman entering Business Administration; the other to a senior in Business Administration. Awarded on basis of scholarship and financial need. Apply to Dean, College of Business Administration, before March 1.

ATLANTA PAN-HELLENIC SCHOLARSHIP. Tuition scholarship to senior women student (not necessarily sorority). Awarded on basis of scholarship, financial need, and character by a committee organized through Dean of Women. Apply to Dean of Women, University of Georgia.

***BAND SCHOLARSHIPS.** The University, in cooperation with the Athletic Association, provides a limited number of scholarships to persons playing in the University Band. Recipients are chosen by the Band Director.

BLUE KEY SCHOLARSHIP FUND. Established in 1952 the income from this fund is to be used for scholarships as the Blue Key Honor Society, with the approval of its faculty advisor, directs. The fund is administered by the University of Georgia Foundation.

BORDEN AGRICULTURAL AWARD. A \$500 annual award to senior in College of Agriculture with the best scholastic average who has taken two or more Dairy courses. Selected by Dean of the College of Agriculture.

BORDEN HOME ECONOMICS AWARD. A \$300 annual award to the senior in the School of Home Economics who made the highest average in her junior year and who has completed certain prescribed courses in Foods and Nutrition.

BRYAN PRIZE. The late William Jennings Bryan gave to the University the sum of \$250 and directed that the income of this amount be awarded annually as a prize to that student who writes the best essay on the democratic form of government. Essays are submitted to the Head of the Department of Political Science and are judged by a committee of the faculty of this department.

EDWARD A. BURDETTE MEMORIAL MEDAL. This medal is offered by Mrs. L. G. Daingerfield in memory of her son, Edward A. Burdette. It is awarded to that member of the senior class who, in the judgment of the faculty of the English Department, has done the best work as a major student in the field of English.

NATHAN BURKAN MEMORIAL COMPETITION. The American Society of Composers, Authors, and Publishers annually offers a cash award of \$100 to that student of the graduating class who submits the best paper on *Copyright Law*. Selection is made by the Law faculty.

THE M. F. BYRD AWARD. The name of the veterinary student who shows the most progress during his first year in the School of Veterinary Medicine is inscribed on a plaque. The award is in memory of M. F. Byrd, a member of the Veterinary Class of 1961, who died in his first year as a veterinary student. Selection by members of the Veterinary Faculty who instruct first year students.

THOMAS D. CAREY AND J. C. C. BLACK, JR., MEMORIAL FUND. Established in 1957, by will, by Merial Black Carey in memory of her husband and her brother as a perpetual fund, the income from which is used to enable deserving young men from the Academy of Richmond County or the Junior College of Augusta to attend the University. The fund is administered by the University of Georgia Foundation.

CASTLEBERRY FOOD COMPANY SCHOLARSHIP. Established by the Castleberry Food Company, Augusta, Georgia, this scholarship of \$250 is to be awarded to a deserving student majoring in food technology.

CHEMSTRAND CORPORATION. An annual award of \$500 to a senior business administration student as selected by the committee.

CHEROKEE SCHOLARSHIP. Tuition scholarship for Boy Scout from Northeast Georgia District.

CHI OMEGA PRIZE. The Mu Beta Chapter of Chi Omega Society offers a prize of \$25 to the outstanding women student in sociology, economics, psychology, and political science in rotating order. For the year 1960-61 the prize will be awarded in economics. In order to be eligible for this prize, a student must take at least three courses per quarter throughout the year.

CHI PSI AWARD. The National Chi Psi Fraternity gives \$200 annually to the outstanding student member of the local Chi Psi Fraternity. The committee making the selection is composed of a representative from the Dean of Men's Office and two alumni of the local chapter.

***COATS & CLARK SCHOLARSHIP.** A \$500 annual scholarship given by Coats & Clark, Inc., to an entering freshman with first priority going to an employee or the son or daughter of an employee and second priority to a resident of a community in which the company operates a plant.

HUGH MOSS COMER SCHOLARSHIPS. Eight scholarships of \$400, one each year for general excellence in 4-H Club work. Awards made through State 4-H Club office.

JOE BROWN CONNALLY PRIZE. This prize of \$100 was established by his family in memory of Joe Brown Connally. It is awarded annually to that member of the junior class who is most proficient in Georgia history. Selection is made by Head of the History Department in consultation with the instructor of the class in Georgia History.

DAIRY SCHOLARSHIPS. Scholarships ranging from \$200-\$300 a year are available for upperclass students in the Dairy field. These include: **DAIRY QUEEN OF GEORGIA, FOREMOST DAIRIES, SOUTHERN DAIRIES, BORDEN SANCKEN COMPANY, KENNETT DAIRIES, GEORGIA CRACKERS, WELLS DAIRY CO-OPERATIVE, GEORGIA MILK PRODUCERS CONFERENCE and MORGAN COUNTY CREAMERY.**

DAIRY PRODUCTS JUDGING AWARD. Trophies and products are given by various commercial companies to encourage interest in the Dairy Products Judging Contest, which is open to all students interested in judging dairy products.

DEBATERS MEDAL. The University awards annually a key to each of the six members of the freshman class who are selected by the Debate Council for membership on the Freshman Debate Team.

DELTA AIRLINES SCHOLARSHIP IN AERONAUTICAL ADMINISTRATION. Created in 1951 by a principal gift of \$5,000 from Delta Air Lines, Inc., it is administered by the University of Georgia Foundation and provides for an annual award of \$300 to a selected student majoring in aeronautical administration, available for both junior and senior years for the winner.

DELTA DELTA DELTA SCHOLARSHIP. A fund set up by the local chapter of the Delta Delta Delta Sorority and the national organization to aid a junior or senior woman to continue her studies. Application blanks may be secured from the Secretary of Scholarship Committee. Recommendations are

made to the national sorority by a local committee; final awards are made by National Office of Delta Delta Delta.

DELTA PHI EPSILON "OUTSTANDING FRESHMAN" AWARD. An annual award of \$100 and a trophy to the girl or boy judged the year's "Outstanding Freshman" by the University of Georgia Chapter of Delta Phi Epsilon.

DELTA SIGMA PI SCHOLARSHIP KEY. The Delta Sigma Pi national commerce fraternity awards annually a gold key to that member of the senior class of the College of Business Administration, who, in the opinion of the faculty of the College, has made the best record during the year. The award is based on scholarship and character.

LAMAR DODD AWARD. The University of Georgia Art Students' League gives to a student in the Art Department an award called the Lamar Dodd Award for outstanding work and service. Usually, but not necessarily, this award is given to a senior. The award consists of the student's name being engraved on a cup which remains the property of the Art Department. Students and faculty of the department make the selection.

***DURR-SCHAFFNER SCHOLARSHIP.** Mr. and Mrs. Roy Durr, Durr-Schaffner Poultry Company, give each year one scholarship of \$1600 for a student in poultry husbandry. The scholarship is for four years, \$400 each year, provided the recipient maintains the necessary scholastic average.

A. S. EDWARDS AWARD. An annual award consisting of a certificate and key to the student chosen for excellence of scholarship, meritorious conduct, service to the Psychology Department, and future promise as a scholar. This award was established by the University of Georgia Chapter of Psi Chi to honor Austin Southwick Edwards, Head, Department of Psychology, 1916 to 1951.

P. W. FATTIG SCHOLARSHIP. The Georgia Entomological Society sponsors the scholarship in memory of one of its most distinguished charter members. The fund is administered by the University of Georgia Foundation and the interest will be used as tuition scholarship for one or more junior or senior students majoring in entomology. Selection will be made by a committee headed by the Head of the Department of Entomology.

THE FELTON FUND. This fund was established by the will of Rebecca Latimore Felton in memory of her children, and is to be used to educate and assist in the education of men students. The fund is administered by the First National Bank of Atlanta.

GEORGIA FORD TRACTOR SCHOLARSHIPS. Two annual \$700 scholarships and two annual \$500 scholarships to outstanding juniors and seniors in agricultural engineering.

***GEORGE RUSH FRANKLIN SCHOLARSHIP.** Income from trust fund established by Desiree L. Franklin in memory of her brother to provide student scholarships with preference to be given residents of Augusta, Georgia.

***JOHN AND MARY FRANKLIN SCHOLARSHIPS.** Twenty \$300 scholarships for 4-H Club members or former members. For entering freshmen, transfers, or students presently enrolled at the University. Must work at Rock Eagle as a counselor in the Summer Camping Program. See the County Agent or Home Demonstration Agent for information.

***FRESHMAN SCHOLARSHIPS.** Up to one hundred competitive scholarships are awarded entering freshmen each year. The value of each scholarship is \$183, covering fees of \$61 per quarter. Selection is made by the Freshman Scholarship Committee. Apply by March 1.

***GAINESVILLE-MIDLAND RAILROAD SCHOLARSHIPS.** Five awards of \$500

each to Poultry majors from Clarke, Jackson, and Hall Counties. Apply to Head of Poultry Department.

*GARDEN CLUB OF GEORGIA SCHOLARSHIP. \$100 each per quarter to a selected freshman and a selected upperclassman in landscape architecture. Apply to Head of the Department of Landscape Architecture.

*GENERAL MOTORS SCHOLARSHIPS. Two awards annually to entering freshmen, amount determined on basis of student need. Four year renewal option. Apply to the University Scholarship Committee by March 1.

GEORGIA COLONIAL HISTORY PRIZE. The Athens Town Committee of the Georgia Society of Colonial Dames of America offers annually a prize of \$50 for the best paper on some topic of colonial Georgia history, written by any University student.

*GEORGIA POWER COMPANY SCHOLARSHIP. Awarded to students who are residents of Georgia for outstanding service in the field of Agriculture.

*GEORGIA SCHOLASTIC PRESS ASSOCIATION SCHOLARSHIPS. Two scholarships yearly to high school graduates equivalent in value to the matriculation fee. The winners are chosen by the faculty of the School of Journalism through the GSPA upon recommendation of the faculty advisers of the various high school publications of the state. Correspondence concerning these scholarships should be addressed to the Dean of the School of Journalism.

LT. JOEL HIRSCH GOLDBERG MEMORIAL FUND. Established in 1954 by the B'nai B'rith Women of Atlanta in memory of Lt. Joel Hirsch Goldberg, son of their founding president, and an alumnus of the University, this fund provides an annual state tuition award to a deserving student. Selection is made by the University Scholarship Committee.

JAMES COFFEE HARRIS AWARD. A cash award to a junior student in the School of Home Economics as selected by a faculty committee on the basis of superior grades in Home Economics and English and who is in need of financial assistance.

HARRISON PRIZE. The Harrison Company, law-book publishers of Atlanta, Georgia, offers as a prize to that member of the law graduating class who makes the highest average during his senior year a copy of *Powell's Action for Land*. Selection is made by the Law faculty.

WALTER B. HILL PRIZE IN ETHICS. The late Judge Horace Russell established an annual prize of \$50 that is awarded to the student who writes the best essay on a subject in the field of Ethics assigned by the Professor of Philosophy. Award is made by a committee chosen by the faculty of the Philosophy Department.

ROBERTA HODGSON LOAN AND SCHOLARSHIP FUND. Created in 1955 by Miss Roberta Hodgson to provide, out of income, scholarships for, or loans to, gifted students in need of financial assistance. The fund is administered by the University of Georgia Foundation.

DEAN'S AWARDS IN HOME ECONOMICS. Two annual awards of \$100 each for excellence in the sophomore and freshman years, respectively, and superior promise in Home Economics.

HOMELITE FORESTRY SCHOLARSHIP. Annual award of \$500 to junior or senior in School of Forestry on basis of scholarship and leadership. Apply to Dean, School of Forestry.

HORTICULTURAL CLUB SCHOLARSHIP. \$50 award to an upperclass student who has exhibited qualities of leadership and promise in the field of Horticulture.

INTERFRATERNITY COUNCIL SCHOLARSHIP. An annually awarded state tuition scholarship which goes to a sophomore boy selected by a committee on the basis of his freshman scholastic record, his participation in campus activities, and his financial need.

EARL JENKINS MEMORIAL AWARD. Established by Mrs. Gladys Beach, this is an annual award of \$100 to an outstanding junior in the School of Forestry.

SALLIE MAUDE JONES SCHOLARSHIP. One-third of the net income under the will of Miss Sallie Maude Jones is set up for the purpose of aiding needy and deserving girls in the College of Education. Selection is made by a committee from the College of Education.

JUNIOR ORATOR'S PRIZE. The University awards annually a silver loving cup to that member of the junior class who delivers the best original oration. Sponsored by Demosthenian and Phi Kappa Literary Societies, judged by member of University faculty.

GEORGE D. KITZINGER HONORARY AWARD. The most outstanding 4-H Club boy and 4-H Club girl as named by the State 4-H Club office share equally the annual income from a fund set up by George D. Kitzinger for Georgia 4-H Clubs.

***KROGER COMPANY SCHOLARSHIPS.** Four scholarships of \$250 each are awarded by the Kroger Company to Georgia high school graduates who enter the College of Agriculture and the School of Home Economics the Fall Quarter. Application blanks may be obtained from the Dean of the College of Agriculture and the Dean of the School of Home Economics and must be filed by March 1.

***JOSEPH RUCKER LAMAR SCHOLARSHIP.** A committee from Richmond Academy, Augusta, Georgia, awards scholarships annually to students attending the University of Georgia in Athens.

LAWYERS CO-OPERATIVE PUBLISHING COMPANY PRIZE. The Lawyers Co-operative Publishing Company offers as a prize to that member of the class in Legal Bibliography who makes the highest grade a copy of *Ballentine's Law Dictionary*. Selection is made by Law faculty.

LEDERLE LABORATORIES SCHOLARSHIP. An annual award of \$1,000 for the senior student in Veterinary Medicine, showing the most promise of becoming a research worker in animal diseases.

JESSIE AND DAN MACDOUGALD MEMORIAL FUND. The Dan MacDougald Memorial Fund was created on August 24, 1953, by gifts from friends, associates and family of Dan MacDougald, first honor graduate of the Law Class of 1910, to benefit the School of Law and honor Mr. MacDougald's memory. Upon the death of Mrs. Dan MacDougald in 1957, it was decided to honor her also and the name of the Fund was changed accordingly. The Fund is administered by The University of Georgia Foundation and provides for an annual cash award of the net income to the first honor graduate of the School of Law.

HAMILTON MCWHORTER PRIZE. Hamilton McWhorter of the Class of 1875 and his family provided for an annual award to that member of the Freshman Class of the University selected from the group having the highest scholastic average for the year's work on the basis of service and leadership as demonstrated by participation in campus activities.

***MARBUT MILLING COMPANY SCHOLARSHIPS.** Five annual \$400 awards to students majoring in poultry. One award for best scholastic record in each of the four classes (freshman, sophomore, junior, senior), and one addi-

tional scholarship to any one of the four classes. Apply to Head of the Poultry Department.

ISAAC MEINHARD MEMORIAL AWARD. A fund of one thousand dollars from which the net annual income is used to provide an annual prize for the student who has the highest average grade for all of his law work. Selected by Law faculty.

QUIMBY MELTON-GRIFFIN NEWS PRIZE. A prize of twenty-five dollars given by Quimby Melton, editor and publisher of the *Griffin News*, to the winner of an essay contest, the subject of the essay and the number of words determined by the donor. A committee of judges is appointed by the Dean of the School of Journalism and Mr. Melton.

BERT MICHAEL SCHOLARSHIP. The family of the late Bert Michael of the class of 1912 gave to the University a fund of \$1,000. The income of this fund is awarded annually as a prize to that member of the junior class who is selected by a committee of the faculty. In making the award the faculty committee considers scholarship, qualities of character, and also financial need.

MORTAR BOARD SCHOLARSHIP. An annual tuition award to woman student selected at the end of sophomore year for use in her junior year. Based on scholarship, character, and financial need. Apply to Placement Office.

***MUSIC SCHOLARSHIPS.** The Music Department offers to outstanding students majoring in music a limited number of scholarships varying from private lesson charges to state tuition charges. These include scholarships for band, string, piano, and voice.

JENNIE BELLE MYERS MEMORIAL. Annual award to upperclass woman student best exemplifying the qualities of graciousness and character as remembered in Miss Jennie Belle Myers.

OMICRON DELTA KAPPA PRIZE. The Omicron Delta Kappa honorary fraternity awards annually a silver loving cup to that male student in the University who makes the highest scholastic average during the academic year. In order to be eligible for this prize, a student must have been in residence at the University for three quarters.

PHI DELTA PHI PRIZE. Wilson Inn, the local chapter of Phi Delta Phi Legal Fraternity, presents annually to that member of the first year law class who makes the highest average during his first year a prize consisting of law books selected by the Inn.

PHI KAPPA PHI SCHOLARSHIP. A state tuition scholarship awarded to the freshman student with the highest scholastic average for the first year's work at the University who returns to school the following Fall Quarter for the sophomore year.

***POULTRY SCHOLARSHIPS.** Awards of \$200 are made to entering freshmen on the basis of their high school record and who wish to major in Poultry Husbandry in college. Selection is made by the Poultry Department. These include the following individual scholarships: BISHOP HATCHERY, CHEMELL'S HATCHERY, COTTON PRODUCERS ASSOCIATION, JESSE JEWELL, INCORPORATED, J. H. JOHNSON & SONS, PIEDMONT FEED COMPANY, PIEDMONT POULTRY COMPANY, STRAIN FEED & COAL COMPANY, THEO STIVERS, A. W. THOMPSON HATCHERY, VANTRESS FARMS, SOUTHEASTERN HATCHERIES.

PROFESSIONAL WOMAN STUDENT OF THE YEAR. The Professional Panhellenic makes an annual award to the senior woman student who is selected by a faculty committee as the professional woman student of the year, from candidates named by each academic dean as the professional woman student of the year in his school or college.

PURINA MILLS SCHOLARSHIP. The Purina Mills Company of St. Louis gives a scholarship that consists of paying the recipient's expenses for one month of study in the factories and laboratories of the company and a leadership course on Lake Michigan to an outstanding member of the junior class in Animal Husbandry. The staff of the Animal Husbandry Department makes the selection.

RALSTON PURINA COMPANY SCHOLARSHIP. An annual \$500 scholarship awarded to the outstanding senior in the College of Agriculture.

RAYONIER CORPORATION SCHOLARSHIP. Three annual awards of \$500 to Seniors, one each from Arts and Sciences, Business Administration, and Forestry.

REDFEARN PRIZE. Mr. D. H. Redfearn, '09, of the Miami bar offers a prize of \$50 to the law student writing the best article on *Suggested Changes in the Remedial Laws of Georgia*. Selected by Law faculty.

***REFRIGERATED TRANSPORT COMPANY AND ITS OPERATORS SCHOLARSHIPS.** (Limited to 35 North Georgia counties). A total of \$6400 is provided for four scholarships of \$1600 each to cover four years. Open to Poultry Majors. Apply to Head of the Poultry Department.

THE NEEL REID MEMORIAL SCHOLARSHIP IN LANDSCAPE ARCHITECTURE. The Peachtree Garden Club of Atlanta in 1947, as a memorial to Neel Reid, established a fund, the income of which is to be awarded to a student in the Department of Landscape Architecture who has shown outstanding proficiency in landscape design. The stipend is \$500.

MARY ROSENBLATT ART SCHOLARSHIP FUND. Mr. and Mrs. William L. F. Rosenblatt in 1949, as a memorial to their daughter, Mary Lillian Rosenblatt, a member of the Art Staff of the University from 1929 through 1934, established a trust fund with the University of Georgia Foundation. The income is to be used to aid worthy students in the Department of Art. Application should be made with the Head of the Department of Art.

NITA BLACK RUCKER MEMORIAL FUND. Established in 1949 by Nellie Rucker and Walter and Lamar Cobb Rucker for the benefit of Exchange Students from Germany. The fund is administered by the University of Georgia Foundation.

HORACE RUSSELL PRIZE IN PSYCHOLOGY. The late Judge Horace Russell established an annual prize of \$50 that is awarded to the student who writes the best essay on a subject in the field of psychology assigned by the Professor of Psychology.

ST. REGIS PAPER COMPANY SCHOLARSHIP. Open to forestry students who have completed the sophomore year including the summer camp program. Selection is made by a Regional Committee on the basis of scholastic achievement and leadership. The scholarship is valued at \$800 each for a junior and a senior student.

***SAVANNAH SUGAR REFINING CORPORATION SCHOLARSHIP.** An award of \$250 to a student majoring in food technology, first preference for an entering freshman and a second choice to a junior transfer student.

JESSIE WOODROW SAYRE PRIZE. The Jessie Woodrow Sayre Scholarship Foundation provides \$100 annually to be used as a prize for the student of the College of Arts and Sciences who submits the best paper on World Relations. Papers are submitted to the Head of the Department of Political Science and are judged by a committee of the faculty of the College of Arts and Sciences.

***SEARS, ROEBUCK FOUNDATION SCHOLARSHIPS.** Annual Scholarships of

\$200 awarded to entering freshmen in the College of Agriculture and the School of Home Economics.

THE HENRY A. SHINN MEMORIAL AWARD. The Alexander H. Stephens Chapter of Phi Alpha Delta National Legal Fraternity annually presents a certificate and a \$25 Government Bond to the student writer of the best legal article published during the year. The award is given in honor of Dr. Henry A. Shinn, an esteemed member of the law faculty for many years.

SIGMA DELTA CHI SCHOLARSHIP AWARDS. The Sigma Delta Chi national journalistic fraternity awards annually a certificate and key to the outstanding male senior in journalism. He is selected by a committee composed of the president of the local chapter of Sigma Delta Chi, the faculty adviser of the chapter, and one alumni member. In addition, Sigma Delta Chi awards annually certificates of distinction to those graduates of the School of Journalism who stand in the upper ten percent of their class.

SOPHOMORE DECLAMATION PRIZE. The University awards each year a silver loving cup to that member of the sophomore class who is adjudged to be the best declaimer. Sponsored by Demosthenian and Phi Kappa Literary Societies, judged by members of the University faculty.

***SOUTHERN MAID SCHOLARSHIPS.** Tuition scholarships of \$183 each given to two entering male freshmen interested in studying in the fields of physical or biological sciences. Donated annually by the Jacksonville Paper Company and its subsidiaries and limited geographically to students who live in the areas served by this company. Four year renewal option. Apply to the University Scholarship Committee by March 1.

SPECIAL SCHOLARSHIP AWARDS. From various sources the University has funds available for scholarship grants which may be awarded according to the provisions of the donations. These scholarships range in amounts from tuition and fees to all necessary expenses to attend the University.

ROBERT STRICKLAND AGRICULTURAL MEMORIAL AWARD CLUB SCHOLARSHIPS. Two annual awards of \$400 each to juniors or seniors majoring in Agricultural Economics who have a genuine interest in economics of agriculture and have maintained a high scholastic average.

SWIFT AND COMPANY SCHOLARSHIP. Swift and Company of Chicago offers a scholarship that consists of paying the recipient's expenses in Chicago for one week of intensive instruction in livestock marketing to the student who writes the best essay on some phase of livestock marketing. This scholarship is administered by the Animal Husbandry Department.

TEXACO SCHOLARSHIPS. From one to four scholarships awarded annually by Texaco, Inc., to male students in scientific or engineering fields relating to the petroleum industry who have successfully completed two years of college, have need of financial assistance, and are American citizens.

***LAMAR TROTTI, JR., SCHOLARSHIP.** An annual scholarship of \$300 awarded to a worthy student of Tallulah Falls School, Tallulah Falls, Georgia, to attend the University of Georgia. Recipient is named by a committee composed of members of the Young Matrons Circle for Tallulah Falls School, Atlanta, Georgia.

UNION BAG-CAMP PAPER CORPORATION. A \$500 annual scholarship to a junior in the College of Business Administration, preferably majoring in Industrial Accounting, and planning to make a career in industry. Renewal for senior year.

***UNIVERSITY THEATRE-THALIAN-BLACKFRIARS SCHOLARSHIP.** Two state tuition scholarships are awarded each year to outstanding high school sen-

iors for study in Speech and Drama. Selection is made by the Department of Speech and Drama.

THE WILLCOX PRIZE IN FRENCH. This prize was founded in 1896 as a memorial to their father by the sons of Professor Cyprian Porter Willcox, who, from 1872 until his death in 1895, filled with great distinction the chair of Modern Foreign Languages at the University. It will be offered to a student who has, in the opinion of the department, achieved excellence in French at the intermediate level. The nature of the award will be announced by the Department of Modern Foreign Languages during the course of the academic year.

THE WILLCOX PRIZE IN GERMAN. This prize was founded in 1896 as a memorial to their father by the sons of Professor Cyprian Porter Willcox, who, from 1872 until his death in 1895, filled with great distinction the chair of Modern Foreign Languages at the University. It will be offered to a student who has, in the opinion of the department, achieved excellence in German at the intermediate level. The nature of the award will be announced by the Department of Modern Languages during the course of the academic year.

R. C. WILSON AWARD. Created in 1947 by I. Z. Harris of the class of 1915 in honor of Robert C. Wilson, Dean Emeritus of the School of Pharmacy, this annual award of at least \$50 goes to the "outstanding Pharmacy senior" elected by Pharmacy students. This fund is administered by the University of Georgia Foundation.

W. S. G. A. LOYALTY AWARD. The Women's Student Government Association Loyalty Award is given each spring to that woman who while not holding a W. S. G. A. office has been the most outstanding in demonstrating her loyalty to the University and its highest ideals.

WOMEN'S STUDENT GOVERNMENT SCHOLARSHIP. An annual tuition award to woman student on basis of scholarship, financial need, and character. Apply to Placement Office.

XI SIGMA PI AWARD. The Forestry Club of the University offers a prize of \$10 to that member of the freshman class of the School of Forestry who does the most outstanding work during the year. Selected by a committee from the organization.

"Z" CLUB. Tuition scholarship for outstanding Freshman for Sophomore year.

For further information concerning any of the above scholarships, write to the Director of Placement and Student Aid.

Fellowships, scholarships, and prizes for graduate students will be found under Graduate School.

STUDENT LIFE AND ACTIVITIES

STUDENT COUNSELING

The University maintains certain counseling and guidance services for all its students. Each academic dean, either personally or through appointed assistants, guide each student in his academic problems, especially in the arrangement of schedules, the completion of degree requirements, problems about probation, and other problems of an academic nature.

Counseling, other than academic, is centered in the Division of Student Affairs. The Dean of Men and the Dean of Women and their staffs are concerned with living arrangements and the personal problems of students.

The Coordinator of Religious Affairs counsels concerning personal problems of a religious and spiritual nature. The Guidance Center aids students in making educational and vocational decisions on the basis of aptitudes, interests, and personal information, and of the opportunities available; offers counseling in the improvement of reading and study skills, maintains records of all placement and other special tests, and helps the student make decisions on the basis of his characteristics. The Division of Placement and Student Aid offers financial and placement services to all students, especially to seniors and those seeking work either on or off the campus. The Director of Veterans Affairs assists veterans in educational planning and liaison with the Veterans Administration. Health problems are the responsibility of the University Physician, and the infirmary staff is available on a 24-hour basis. The Psychology Clinic and the Speech and Hearing Clinic offer counseling supplementary to the services of the Division of Student Affairs.

All counseling services are available to students who voluntarily request them, or who are referred by faculty members and officials. All counseling services work in cooperation, and counselors take the responsibility of helping the student find the service which best fits his needs.

The University is attempting to maintain close personal relations between the students and the faculty members; and a part of each teacher's duties is personal conferences and the personal guidance of students whether formal or informal in nature.

STUDENT HEALTH SERVICE

The Department of Student Health was established for the protection and care of the health of students attending the University. In 1940 Judge Price Gilbert gave to the University funds for the erection of a new infirmary. This building is known as Gilbert Memorial Infirmary.

The physicians, in the Infirmary, are on duty from 8:30 A. M. to 5:00 P. M. week-days and until noon on Saturdays. Members of the nursing staff are on duty at all times and will contact the physician on call, after duty hours, as needed to see patients. Physical examinations are to be done by the home physician and sent to the Infirmary ten days prior to the opening of the quarter. Students needing medical care are seen as expeditiously as possible. Emergencies are seen at once. Students requiring hospitalization are admitted and treated in the Infirmary, except for some illnesses and for surgical operations. A charge of \$2.50 per day is made at the Infirmary to cover costs of meals and bed linen for patients admitted. Routine x-ray and laboratory facilities are available at the Infirmary; more specialized procedures must be referred to the proper department of local hospitals.

The University does not attempt to provide the services of various specialists, dental care, special nursing, or other unusual treatment as a regular part of its health program. When such services become necessary, the University physician (preferably after consultation with the parents of the student involved) refers the case to a local specialist or consultant. The infirmary fee does not cover the cost of such special services. In case of an operation, or certain types of contagious diseases, the specialist will place the student in one of the two local hospitals, at the expense of the student, or, if able to travel, the student will be sent to the home physician.

All students are urged to carry some form of Health Insurance. A special student plan is available at a cost of \$18 a year which covers

practically all costs of illness or injury. Details and application forms are available at the Gilbert Memorial Infirmary.

UNIVERSITY LECTURE SERIES

Each year several distinguished speakers and artists are brought to the University. The object of these programs is to offer to the students the advantages of cultural entertainments. Every student during the period of his residence at the University has the opportunity to see and hear some of the most renowned figures in the artistic, literary, and scientific worlds.

ART, DRAMA, AND MUSIC ACTIVITIES

The Department of Art presents a series of art lectures and exhibitions throughout the year. These are open to the entire University and community.

The Art Students League sponsors student trips, exhibitions of student work and, in cooperation with the Department of Art, an annual auction of faculty and student work, the proceeds of which are placed in the Fund for the Advancement of Art.

The University Theatre of the Department of Speech and Drama produces either one or two major productions each quarter. All students of the University are eligible to participate in any phase of these productions.

The Department of Speech and Drama, in conjunction with the University Theatre, brings outstanding professional companies to the campus of the University of Georgia during the year.

The Department of Music presents each Thursday evening the Music Appreciation Hour, a series of programs featuring faculty members, advanced students, and guest artists. Originated in 1927 by the former head of the department, Dr. Hugh Hodgson, and open to the public without charge these chamber music concerts are offered each year as a cultural contribution to the community and surrounding areas.

Other music activities include the Men's Glee Club, the Women's Glee Club, the University Chorus, the Symphony Orchestra, the University Band, and an annual Opera Production.

ATHLETIC PROGRAM

The University appreciates the interests and needs of men and women students in the field of sports activities. To develop the interests and fulfill these needs the University sponsors a program of intercollegiate athletics and intramural sports activities for men and intramural sports activities for women.

The intercollegiate athletic program includes football, basketball, baseball, track, tennis, golf, swimming, cross country, and rifle marksmanship.

The men's intramural sports program includes touch football, basketball, softball, golf, tennis, track, badminton, swimming, horseshoes, volleyball, and bowling.

The women's intramural sports program sponsored by the Department of Physical Education for Women and the Women's Athletic Association, includes volleyball, swimming, horseshoes, golf, basketball, bowling, table tennis, badminton, softball, tennis, archery, and others.

FORENSIC ACTIVITIES

True to the traditions of southern oratory and debate, the University offers three debating societies to the students: Demosthenian Literary Society, and Phi Kappa Literary Society (for men), and Agricultural Club (for agricultural students). Throughout the year intersociety debates and orations maintain unusual interest in the societies.

Apart from the literary societies the University sponsors debating teams open to men and women students. The teams engage the outstanding colleges of the South and of the nation.

STUDENT PUBLICATIONS

Student publications include two of a campus-wide nature, *The Red and Black* (weekly newspaper) and *Pandora* (the University year book). In addition to these campus-wide publications there are certain student publications sponsored by the various schools and colleges or by organizations on the campus. Among these are: *Georgia Agriculturist* (monthly magazine in the College of Agriculture), *Cypress Knee* (publication of the School of Forestry), *The Georgia Clover Leaf* (year book of 4-H Clubs), *Georgia Agricultural Engineer* (year book of the Department of Agricultural Engineering), *The Georgia Dairyman* (publication of the Dairy Science Club), and *The Georgia Pharmacist* (quarterly publication in the School of Pharmacy).

STUDENT CENTER

The Student Center in Memorial Hall conducts a wide variety of recreational programs and activities. The Center is operated by a director and a board of students. Table tennis and billiard tables are available as well as a large lounge with phonograph, television, and radio. Special musical and film programs and student socials are offered.

RELIGIOUS ORGANIZATION

The University employs a Coordinator of Religious Affairs for the spiritual guidance of its students. Under the direction of the Religious Activities office is the general non-denominational religious organization, the University of Georgia Religious Association. Operating largely through its student officers, the Religious Association holds religious programs each week throughout the regular sessions. The Association also cooperates with the local church student groups in assisting them with special projects and in promoting major religious events for the campus.

FRATERNITIES AND SORORITIES

Social organizations on the campus include men's Greek letter fraternities and women's Greek letter sororities. These organizations, as well as many clubs and societies of a social nature, provide the campus with many social functions during the year.

FEES AND EXPENSES

APPLICATION DEPOSIT: New students applying for admission to the University for a Fall Quarter must send \$25 with the application. If the applicant is not accepted the deposit will be refunded in full. If the ap-

plicant is accepted for admission and registers for that Quarter the deposit will be applied toward his fees. If an applicant is accepted and cancels his acceptance prior to July 1 the deposit will be refunded in full. No refunds will be made if acceptance is cancelled after July 1 preceding the Fall Quarter. Make checks payable to University of Georgia.

MATRICULATION FEE: RESIDENT STUDENTS. Each student who is a resident of the State of Georgia is required to pay during the registration period at the beginning of each quarter a matriculation fee of \$77.50.

NON-RESIDENT TUITION. Every non-resident student shall pay during the registration period at the beginning of each quarter a non-resident tuition fee of \$115 in addition to the regular matriculation fees charged resident students.

MATRICULATION FEE FOR FORESTRY STUDENTS. Students taking professional work in forestry are required to pay \$3 more per quarter than regular students. Students who are residents of Georgia must pay a quarterly fee of \$80.50 and non-resident students are required to pay a non-resident tuition fee of \$115 in addition to the \$80.50 charged resident students.

MATRICULATION FEE FOR LAW STUDENTS. Students taking professional work in law are required to pay \$12.50 more per quarter than regular students. Students who are residents of Georgia must pay a quarterly fee of \$90 and non-resident students are required to pay a non-resident tuition fee of \$115 in addition to the \$90 charged resident students.

MATRICULATION FEE FOR MUSIC MAJORS. Students majoring in music are required to pay \$45 more per quarter than regular students. (This covers private lessons, rental of instruments, practice and locker fees.) Students who are residents of Georgia must pay a quarterly fee of \$122.50 and non-resident students are required to pay a non-resident tuition fee of \$115 in addition to the \$122.50 charged resident students.

MATRICULATION FEE FOR VETERINARY MEDICINE STUDENTS. Students taking professional work in veterinary medicine are required to pay \$27.50 more per quarter than regular students. Students who are residents of Georgia must pay quarterly a matriculation fee of \$105, and non-resident students are required to pay a non-resident tuition fee of \$115 in addition to the \$105 charged resident students.

HEALTH SERVICE FEE. Each student is required to pay during the registration period at the beginning of each quarter a health service fee of \$5.50.

MATRICULATION FEE FOR STUDENTS WITH LESS THAN TWELVE QUARTER HOURS. Students who are permitted to register for less than twelve quarter hours of work must pay a matriculation fee of \$6 for each quarter hour, except students in Law whose rate is \$8 per quarter hour; those in Veterinary Medicine whose rate is \$9 per quarter hour; and those majoring in Music whose rate is \$10 per quarter hour. Basic military and physical education each shall count as 2 hours per quarter in assessing fees. In addition to the quarter hour matriculation rates charged to resident students, non-resident students must pay a non-resident tuition fee of \$10 for each quarter hour of work taken.

MATRICULATION FEE FOR ATLANTA AREA TEACHER EDUCATION SERVICE PROGRAM. Students taking courses in the Atlanta Area Teacher Education Service Program must pay a matriculation fee of \$9 for each quarter hour.

MATRICULATION FEE FOR OFF-CAMPUS WORKSHOPS. Students taking courses at Off-Campus Workshops must pay a matriculation fee of \$6 for each quarter hour.

REQUIREMENTS TO REGISTER AS A LEGAL RESIDENT

In order to register as a legal resident of Georgia at the University of Georgia, a student must establish the following facts to the satisfaction of the registering officer.

- (a) If the student is under 21 years of age, he must show that his supporting parent or guardian has been a *bona fide* resident of Georgia for at least one year next preceding the registration date.
- (b) In the event that a legal resident of Georgia is appointed as guardian of a non-resident minor, such minor will not be permitted to register as a resident student until the expiration of one year from the date of appointment, and then only upon proper showing that such appointment was not made to avoid the non-resident fee.
- (c) If a student is over 21 years of age, he must show that *bona fide* residence in Georgia was established at least one year prior to the registration date. Any period of time during which a person is enrolled as a student in any educational institution in Georgia may not be counted as a part of the year's residence herein required when it appears that the student came into the state and remained in the state for the primary purpose of attending a school or college.

A full time regular faculty member and his minor children may register for courses on the payment of resident fees, even though the faculty member has not been in residence in Georgia for a period of twelve months.

AUDITOR'S FEE. Persons desiring to attend courses or lectures without examination or credit may secure an auditor's ticket. Fees for auditors are the same as those for students registered for credit.

BREAKAGE DEPOSITS AND SPECIAL FEES. There are no general laboratory fees, but there are a few courses offered that require special fees, such as agronomy for cotton grading and field trips; forestry for forestry camp; landscape architecture for field trips; and music for private lessons. The catalogue description of a course indicates the amount of any special fee that may be required of those registering for the course.

There are no laboratory breakage deposit fees as such. However, students will be held responsible for any breakage they cause.

ARMED SERVICES UNIFORMS, FEES, AND TEXTBOOKS. Students enrolling in the Army or Air Force ROTC will be furnished uniforms through the University as outlined below:

a. Basic Cadets:

(1) Basic course students are issued necessary uniforms and equipment on a loan basis. These uniforms will be retained by the cadet throughout the fall, winter and spring quarters. All uniforms must be turned in to the supply section by the cadet at the close of the spring quarter or when he drops or is dropped from the Army or Air Force ROTC course.

(2) Basic cadets are required to make a \$25 uniform deposit at the Treasurer's Office in the Academic Building at the time of registration. A fee of \$7 will be deducted from this amount to cover a \$2.50 account fee, \$2.50 for cost of cleaning and laundry at the end of the school year, and \$2 for the year book.

(3) If a basic cadet drops out for any reason during the first three quarters he will be charged \$5 for his shoes and socks. Shoes and socks will become the property of the cadet upon issue, but all cadets are reminded that this will be the *only* issue during his freshman and sophomore years.

b. Advanced Cadets:

(1) Advanced cadets are issued "made to measure" uniforms upon

entry into the Advanced Course. These uniforms become the property of the cadet if he receives his commission while at the University of Georgia. If he does not receive a commission, drops from school, or transfers to another school which does not have advanced military training, he must turn in all uniforms.

(2) Rank insignia, cap insignia and lapel insignia will be issued to the advanced cadet on a loan basis. All insignia must be returned to the supply section upon completion of the course, or upon leaving the University for any reason.

(3) Advanced cadets are required to make a \$90 uniform deposit at the Treasurer's Office in the Academic Building at the time of registration. A fee of \$4.50 is deducted from this amount to cover \$2.50 account fee and \$2 for the year book.

c. Charges:

All cadets are held personally responsible for all textbooks, uniforms, and equipment, and they must provide proper care and safeguards for these items. The cadet concerned will be assessed for the cost of any item lost, destroyed, or mutilated.

d. Refunds of Deposits:

Any refunds due to cadets on deposits, will be made as soon as practicable after the cadet finishes the course or withdraws from the University. These refunds will be made by the Treasurer's Office, after certification of the property custodian, that the cadet's account has been settled and the amount is due.

TIME AND METHOD OF PAYMENT OF FEES AND CHARGES

TIME OF PAYMENT. All fees, deposits, and charges for room and board are payable during the registration period at the beginning of each quarter. A student is not officially registered as a student in the University until such fees and charges are paid. Students who do not make payment within the registration period will be required to pay the service charge for late registration.

METHOD OF PAYMENT. All payments should be made to the Treasurer's Office in the Academic Building on the north campus. Fees and charges may be paid in cash or by check in the exact amount of the student's bill. If a check given for a student's bill is not paid on presentation to the bank on which it is drawn, the student's registration will be cancelled. If the registration is cancelled after the registration period for the quarter has expired, the student may re-register only on payment of the service charge for late registration.

Students are advised to bring their money in the form of express or traveler's checks or money orders and to deposit these in a local bank.

SPECIAL FEES AND CHARGES

SERVICE CHARGES FOR LATE REGISTRATION. A student who fails to register on the days set aside for that purpose will be subject to penalties as follows: for the first day beyond the scheduled dates, \$5; and for each succeeding day up to and including the fourth day, \$2; or a total of \$11.

SPECIAL EXAMINATION FEE. The University reserves the right to charge a fee of \$2 for any special examination that may be given at the request of a student.

FINE FOR ABSENCES BEFORE AND AFTER HOLIDAYS. A student who is ab-

sent from any class or regular University exercise on the day before or the day after a holiday period and who has no valid excuse for such absence may be required to pay a fine of \$2 for each of the days on which an absence occurred.

TRANSCRIPT FEE. A student who has discharged all financial obligations to the University is entitled to receive on request and without charge one transcript of his academic record. A charge of \$1 will be made for each additional transcript. All records prior to the Summer, 1950 have been microfilmed; transcripts of these records are \$1 each, payable with the request.

DIPLOMA FEE. The fee for a diploma is \$8 for undergraduate, \$10 for masters, and \$25 for doctors degree, which fee includes rental of cap and gown. The doctors fee also includes cost of hood. The Certificate of American Studies for Foreign Students fee is \$5.

GRADUATE RECORD EXAMINATION. All graduate students are required to take the Graduate Record Examination before they are admitted to candidacy for a graduate degree. The fee for students taking this examination is \$5.

FEE REFUNDS

Students who formally withdraw from the University within one week following the scheduled registration date are entitled to a refund of 80 percent of the fees paid for that quarter.

Students who formally withdraw within a period of one to two weeks after the scheduled registration date are entitled to 60 per cent of the fees paid for that quarter.

Students who formally withdraw during the period between two and three weeks after the scheduled registration date are entitled to a refund of 40 per cent of the fees for that quarter.

Students who formally withdraw within a period of three to four weeks after scheduled registration date are entitled to a refund of 20 per cent of the fees paid for that quarter.

Students who withdraw after a period of four weeks has elapsed from the scheduled registration date will be entitled to no refund of any part of the fees paid for that quarter.

All students who withdraw during their first quarter of attendance shall have their \$25 admission deposit deducted before any refunds apply.

Students suspended for disciplinary reasons shall have no right to a refund of any portion of any fees paid.

Students who leave the University when disciplinary action is pending or who do not formally withdraw, are not eligible for a refund.

Information regarding refunds of payment of room and board is set forth under the heading of "Student Housing."

NO REFUNDS OF ANY NATURE CAN BE MADE EXCEPT AT THE END OF A QUARTER.

RESERVATION OF RIGHT TO CHANGE FEES

The University reserves the right to make changes in its fees and charges at the beginning of any quarter and without previous notice. This right will be exercised cautiously.

SUMMARY OF EXPENSES

It is estimated that the reasonably necessary annual expenses of a student at the University vary from \$900 to \$1200. This estimate includes University fees and cost of books, military uniform, room, board and laundry; it does not include travel, clothing, and incidental expenses.

Law students, veterinary medicine students, and non-resident students will find the cost somewhat more because of the higher fees required of them.

FINANCIAL AID FOR STUDENTS

LOAN FUNDS

For the assistance of deserving students who have not sufficient means to pay all their college expenses a number of loan funds have been established by friends of the University. A loan to a student in any academic year will not ordinarily exceed the amount of his fees during that year.

Unless otherwise specified, application for loans should be addressed to the office of the Director of Placement and Student Aid, who administers the awarding of loans under the policies of a faculty committee. Applications for loans should be made at least one month before the time the funds will be needed.

In the following alphabetical list the category of students eligible for the loan is indicated.

- O. C. ADERHOLD FUND. Students in the University.
LUCILLE ALEXANDER FUND. Juniors and seniors in the School of Home Economics.
ALPHA ZETA FUND. Members of the Alpha Zeta Fraternity.
ALUMNI ASSOCIATION FUND. The College of Agriculture.
PRESTON S. ARKWRIGHT FUND. The College of Agriculture.
R. & L. ARNOLD FUND. The College of Agriculture.
ATHENS LIONS CLUB. Students of the University.
ATLANTA COTTON OIL COMPANY FUND. The College of Agriculture.
ATLANTA JOURNAL FUND. The College of Agriculture.
ATLANTA STOCKYARDS FUND. The College of Agriculture.
DUPREE BARRETT FUND. Juniors and seniors in the School of Forestry.
L. H. BEALL FUND. The College of Agriculture.
JOHN D. BOLTON, JR. MEMORIAL FUND. Preference to members of the Kappa Alpha Fraternity.
CHARLES H. BRAND FUND. The University.
MARY UPSHAW BROACH SCHOLARSHIP FUND. Home Economics Students.
CHARLES McDONALD BROWN FUND. The University and The Medical College.
HENRY W. BROWN FUND. The University.
SHEPARD BRYAN FUND. The College of Agriculture.
BERNICE F. BULLARD FUND. Men and women students of the University.
ASA G. CANDLER FUND. The College of Agriculture.
CHARLES H. CHANDLER FUND. The College of Agriculture.
CHAMBERLAIN-JOHNSON-DUBOSE FUND. Juniors and seniors in the School of Home Economics.
A. F. CHURCHILL MEMORIAL FUND. Men and women students of the University.

- CITIZENS AND SOUTHERN NATIONAL BANK FUND. The College of Agriculture.
 CLASS OF 1926. The University.
- OBADIAH LEWIS CLOUD FUND. The University.
- MRS. J. H. CLOUDMAN FUND. The College of Agriculture.
- LUCY COBB INSTITUTE FUND. Women students who have been residents of Georgia for at least twelve months.
- E. T. COMER FUND. The University, preference to be given students from rural sections.
- D. A. R.-ELIJAH CLARKE CHAPTER FUND. Women students of the University.
- D. A. R.-LILA NAPIER JELKS FUND (Hawkinsville Chapter). Juniors and seniors of the University whose homes are in Pulaski County.
- D. A. R. MEMORIAL FUND. The University.
- D. A. R.-RICHMOND WALTON MCCURRY FUND. Women students of the University.
- D. A. R.-MAY E. TALMADGE FUND. Men and women students of the University.
- THE DAWSON FUND. The College of Agriculture and the School of Home Economics.
- W. S. DENMARK FUND. Men of the University.
- EUGENE AND HARRY DODD FUND. The University.
- DRUID HILLS METHODIST MEMORIAL EDUCATIONAL FUND. The University.
- J. C. DUKES FUND. Students from Terrell and Coweta Counties in the College of Agriculture, School of Home Economics, and College of Business Administration.
- EPSILON SIGMA PHI FUND (Alpha Beta Chapter). The College of Agriculture.
- EXCHANGE CLUB (Atlanta). The College of Agriculture.
- W. W. FINDLEY FUND. The College of Agriculture.
- LUCY HURT FISHER FUND. Men and women in the College of Agriculture.
- CHAS. W. FORD FUND. The College of Agriculture.
- FORESTRY LOAN FUND. The School of Forestry.
- FOUR-H CLUB FUND. The College of Agriculture.
- FRESHMAN Y COMMISSION FUND. Freshman women of the University.
- EBB W. GALLAHER. Men in the University.
- GEORGIA-A. & W. P. RAILROAD FUND. The College of Agriculture.
- GIRLS CANNING CLUB FUND. Juniors and seniors in the School of Home Economics.
- JAMES C. HARRIS FUND. Men and women students in the University.
- FRANK HAWKINS FUND. The College of Agriculture.
- HAROLD M. HECKMAN, JR. FUND. Students in the University.
- A. L. HULL MEMORIAL FUND. The University.
- J. H. HUNT FUND. Men and women students of the University, preferably from North Georgia.
- MRS. GRAHAM JOHNSON FUND. The College of Agriculture.
- BESS D. JONES FUND. The College of Agriculture.
- JUNIOR LEAGUE, ATLANTA FUND. Juniors and seniors in the School of Home Economics.
- J. B. KEOUGH FUND. The College of Agriculture.
- CLYDE L., JR., AND JOHN KING LOAN FUND. Men students of the University.
- KIRKWOOD P.-T. A. FUND. The College of Agriculture.
- LANDSCAPE ARCHITECTURE STUDENT LOAN FUND. Students in Landscape Architecture.

- FRANCIS EUGENE LANIER FUND. Juniors and seniors in the School of Home Economics.
- FRANCIS A. LIPSCOMB FUND. The University.
- ARTHUR LUCAS FUND. The College of Agriculture.
- JOSEPH HENRY LUMPKIN FUND. The University.
- MR. AND MRS. T. O. MARSHALL FUND. Men and women students of the University.
- R. H. MARTIN FUND. The College of Agriculture.
- MOINA MICHAEL FUND. (Given by the American Legion Auxiliary.) Sons and daughters or brothers and sisters of World War Veterans.
- MISCELLANEOUS FUND. Students in the University.
- THOS. E. MITCHELL FUNDS. Men and women students of the University.
- MOON LOAN FUND. Men and women students of the University.
- NATIONAL DEFENSE EDUCATIONAL ACT FUND. Students in the University.
- R. C. NEELY FUND. The College of Agriculture.
- C. T. NUNNALLY FUND. The College of Agriculture.
- J. CARROLL PAYNE FUND. Juniors and seniors in the School of Home Economics.
- PHI DELTA PHI FUND. Members of that fraternity.
- BENJAMIN Z. PHILLIPS FUND. Members of the second-year law class.
- J. T. PITTARD MEMORIAL. Students in the University.
- CLIFFORD PRATT MEMORIAL FUND. Students in the University.
- ALBON W. REED FUND. The College of Agriculture.
- BERTHA RICH FUND. Juniors and seniors in the School of Home Economics.
- E. RIVERS FUND. The College of Agriculture.
- JAS. D. ROBINSON FUND. The College of Agriculture.
- S. D. V. FRATERNITY FUND. The College of Agriculture.
- JOHN D. SIMMONS FUND. The College of Agriculture.
- HOKE SMITH FUND. The College of Agriculture.
- STUDENTS LOAN FUND. Men and women students of the University.
- STUDENT VETERANS LOAN FUND. Veterans in the University.
- MARK SULLIVAN FUND. Men and women students of the University.
- BERRYMAN THOMPSON FUND. Men and women from Coweta County.
- MELDRIM THOMPSON FUND. Senior Law students of the University.
- MAX THURMOND FUND. School of Forestry.
- FRANCES C. TUCKER FUND. Women in the University.
- LEILA BATES TYE FUND. Home Economics 4-H girls.
- UNION BAG-CAMP PAPER CORPORATION. Juniors, Seniors and Graduate Students in the School of Forestry.
- LOUIS WELLHOUSE MEMORIAL FUND. Men and women students of the University.
- C. P. WHITEHEAD FUND. The College of Agriculture.
- CECIL WILCOX LOAN FUND. Men students of the University.
- CHARLES C. WILSON MEMORIAL FUND. Foreign students in the University.
- ROBERT W. WOODRUFF FUND. The College of Agriculture.
- IDA A. YOUNG FUND. Women students of the University.

FOUNDATION LOAN FUNDS

A number of Educational Loan Foundations outside the University lend money to deserving students on terms similar to those of the regular University funds. Students may write these Foundations directly or be recommended by the Director of Student Aid of the University. Largest among these foundations are:

KNIGHTS TEMPLAR EDUCATIONAL FOUNDATION

Mr. Thomas C. Law, Chairman, P. O. Box 1558, Atlanta, Georgia.

PICKETT AND HATCHER EDUCATIONAL FOUNDATION

*Mr. Guy E. Snavely, Jr., Executive Secretary, P. O. Box 1238,
Columbus, Georgia.*

ROTARY EDUCATIONAL FOUNDATION OF ATLANTA

Mr. Richard P. Smith, Chairman, 603 Forsyth Building, Atlanta, Georgia.

STUDENT AID FOUNDATION

*Mrs. Hazen Smith, Executive Secretary, 1025 Clairmont Avenue,
Decatur, Georgia.*

JOHN T. HALL STUDENT LOAN FUND

Mr. Henry C. Smith, Trust Company of Georgia, Atlanta, Georgia.

The civic organizations and clubs throughout the cities of Georgia maintain loan funds for local students. Students should make inquiry of these clubs.

NATIONAL DEFENSE EDUCATION ACT LOAN PROGRAM

The University of Georgia is participating in the loan program sponsored by the U. S. Department of Health, Education, and Welfare. Funds are available to students who can demonstrate need in line with the provisions set forth in the act which became law in 1958. Priority is given to those students who are preparing to teach in public schools, first, and to those with superior ability in science, mathematics, modern foreign languages, and engineering, second. Applications may be secured from the Division of Placement and Student Aid.

STUDENT EMPLOYMENT

Besides the scholarships, honors, awards, and prizes open to University students, the office of the Dean of Students maintains a Bureau of Student Employment in its Office of Placement and Student Aid. One aim of this bureau is to assist students who find it necessary or desirable to earn a part of their college expenses. Work opportunities occur in the libraries, dining halls, dormitories, some academic departments, and in town.

It is very difficult to secure a job for a student before he arrives in Athens. Employers usually insist on personal interviews. A student should come to the University prepared to pay all his expenses for at least the first quarter of his residence.

Each year the bureau assists many students in finding jobs. A student should not expect, however, to be able to earn enough to pay all expenses. The regular academic program of the University provides a full load of work for the average student. A student who does any considerable amount of outside work will find it necessary to carry a reduced load of academic work and to spend a correspondingly longer time at the University.

Additional financial aid for graduate students will be found in the General Catalogue under Graduate School.

PLACEMENT OF GRADUATES

The Office of Placement and Student Aid assists those who have been enrolled as students in securing business and professional positions and teacher appointments. The office is in constant touch with a large number of alumni and business organizations and school systems that are potential employers of University students.

Any person, whether undergraduate or an alumnus, is eligible to register for placement assistance. All seniors and graduate students are urged to have a personal interview with the Director of Placement and Student Aid.

In addition to the over-all campus placement service this office works very closely with the deans of the professional schools in aiding with the placement of their graduates.

The Office of Placement and Student Aid also maintains a Summer Placement Bureau which assists students and graduates to locate summer work with camps, resorts, and industry. Students and graduates should get in touch with the Placement Bureau if they are interested in summer work. For placement information write to the Director of Placement and Student Aid.

THE GEORGIA CENTER FOR CONTINUING EDUCATION

Today increasing numbers of adults are finding it both necessary and desirable to continue their education in non-credit as well as credit courses. The program at the Georgia Center makes it possible for the University to serve these people with its teaching and research resources through institutes and conferences, personal consultation, printed matter, television, and other communications techniques in a building which is designed for adult comfort and which creates an ideal climate for learning. In addition, these same techniques are used to extend the program of the Center beyond the campus of the University to the largest number of adults possible.

THE FACILITY

In January of 1957 the University opened the doors of its Georgia Center for Continuing Education, a complete, modern educational facility especially designed for adults.

The Georgia Center is the outgrowth of the University's general extension program which began in 1922 and provided ever increasing services until 1954 when in response to the Georgia Plan for Continuing Education the W. K. Kellogg Foundation of Battle Creek, Michigan, made a grant of \$2,500,000 for the construction of the Georgia Center.

Within the building five operational areas are linked together to provide maximum service. Visitors attending conferences are housed in the five story residence wing. There are 148 guest rooms, one large dining room, a luncheon area, and a small private dining room.

Lounges and display areas are on the main floor, and conference rooms of various sizes on the second floor. Small conference rooms are arranged for committee work; larger rooms will accommodate from ten to 100 people. The auditorium will accommodate 400 in either formal or informal seating arrangements.

An integral part of the building is the Communications area including television, recording studios, and the work rooms and offices necessary to

serve these activities. The office area provides work space for an increasing staff of specialists in various phases of adult education.

In building the facility, the University has realized the opportunity to bring all its resources, both physical and intellectual, into direct service to adult groups.

While much of this work will be done within the facility it is the nature of *continuing* education that much must also be done in the local communities throughout Georgia. This building will serve as a general headquarters for ever-increasing services of University Centers and community development.

PROGRAM

The program of the Georgia Center is directed through three major divisions headed by three associate directors under the leadership of the Director of the Center. Instructional Services, Communications Services, and Managerial Services are the major areas.

- I. *The Division of Instructional Services* is responsible for:
 - a. Conferences and Institutes.
 - b. University Centers and Extension classes
 - c. Home Study
 - d. Community Services

Since the opening of the Center facility in January 1957 conferences and institutes have brought many thousands of adults to the campus. These have represented business and industry, trade groups, civic organizations, volunteer clubs and government agencies. A special staff of conference coordinators familiar with current trends in adult education techniques plan with the representatives of the incoming group and the University faculty to assure a cooperative educational service. By bringing the educational problems of adults to the campus where resources of research and teaching are concentrated, the University feels that it can increase its actual service to all citizens.

Through *University Centers* in the larger population areas of the state it is possible for local citizens to continue both credit and informal education. These Centers are located at Albany, Augusta, Columbus, Marietta, Rome, Warner Robins, and Waycross. The evening programs of Athens, Gainesville, and Hinesville are also a part of this service.

Regular academic subjects are scheduled quarterly, primarily during evening hours. Entrance requirements and course content are identical with the standards that apply on the campus. The faculty is approved by the department concerned and by the Dean of Faculties. A number of full-time faculty members are resident in each Center; other instructors are selected from the community. Students satisfactorily completing these classes receive full University credit on transcripts issued by the University Registrar.

Fees for all Continuing Education credit programs are based on a rate of \$6 per quarter hour. Since most of the classes are scheduled for five quarter hours each the usual fee is \$30 per course. A registration fee of \$1 per academic quarter is charged all students in the Centers.

Special certificate courses have been authorized in General Business and in Accounting. Students may elect the courses in these two sequences for two year terminal programs, omitting some of the normal requirements of the freshman and sophomore years in the usual baccalaureate program.

Along with the credit courses each Center is interested in community programs and participates in the development of group activities, discussions, cultural entertainment and over-all adult educational services.

Extension classes in communities beyond commuting distance of the Centers are developed whenever fifteen or more persons request credit classes and wherever qualified faculty can be made available.

Home Study seeks to meet the educational needs of those who are isolated and cannot join group programs or who find advantage in the guided study programs which can be followed on individual schedules. College credit work is available in approximately 150 subjects with instruction provided by members of the University System faculties at Georgia State College for Women, Georgia Southern College and Valdosta State College as well as at the University. A growing program of supervised courses is meeting the needs of special students for work on the high school level. In cooperation with a national volunteer group, Recording for the Blind, Inc., the Center provides a unique service of recorded Home Study courses for visually handicapped persons. A non-credit Adult Education Series is being developed. Already *Applied Imagination*, *The Library Trustee*, and *Anticipating Your Later Years* are available.

Community Services is primarily interested in the over-all development of local communities. A field staff is available to work with community groups in surveying and meeting needs in specialized areas. Faculty members from various departments and colleges are available for community planning. Program materials in many fields—Recreation, International Affairs, Arts, Literature, Citizenship—are available to organizations.

II. *The Division of Communications Services* operates Station WGTV, broadcasting four hours each evening Monday through Friday on Channel 8. Live shows using faculty and staff talent, as well as educational films, are presented. Closed circuit television, tape recording, film production, and graphic arts are used as an integral part of the program of conferences and short courses held at the Center and to extend the total Center program throughout the State. These communications tools combined with exhibits and library resources supplement the traditional face-to-face method. The Division also operates a photographic service and film library which serves the University and the University System. The Georgia Plan seeks to coordinate all communications techniques for maximum educational impact.

III. *The Division of Managerial Services* is responsible for the efficient management of the business affairs of the entire facility. Budget management, service, and supplies are arranged for the effective operation of all units through this one division.

All educational programs for adults should be based on the expressed desires and needs of those involved. To assure the proper direction of energies and to evaluate the effectiveness of current programs all divisions will study the needs of Georgians and assess programs in action, thus future activities can be based on systematic evaluation for maximum effectiveness.

OTHER UNIVERSITY ACTIVITIES

SHORT COURSES, CONFERENCES, AND INSTITUTES

The various colleges and schools of the University conduct short courses, conferences, and institutes for the purpose of assisting various groups of citizens to keep informed about the latest developments in their respective

fields of interest. Some of these meetings are sponsored by business, professional, and social organizations. Members of the University faculty and outside specialists offer instruction in short courses and conduct lectures, demonstrations and conferences. Public announcement is made from time to time regarding special programs of this type that will be held on the University Campus.

Among the conferences sponsored by the College of Education are the Conference of Superintendents and School Administrators and the Rural Life Conference. For several years the Georgia Congress of Parents and Teachers has held a Parent-Teacher Institute at the University in June.

For many years the School of Journalism and the Georgia Press Association have conducted during the month of February a Press Institute for the editors of the papers of the state.

The College of Agriculture conducts Short Courses for the citizens of Georgia as a definite part of its instructional program. These courses are normally given during the winter months. They deal with any subject-matter related to agriculture in which there is a popular interest. Announcements will be mailed to anyone on request.

Other short meetings held at the University are the Woman's Club Institute, the Garden Club Institute, and the conference for those engaged in insurance work.

The University is glad to cooperate with any organization or group in planning a conference or institute that will fill a worthwhile need. Communications regarding such matters should be addressed to The Georgia Center for Continuing Education, University of Georgia.

INSTITUTE OF STATISTICS

In order to centralize activities in the field of statistics within the University, the University of Georgia Institute of Statistics was organized in 1959. Its principal objectives are: (a) to develop and conduct programs of instruction in statistics at the graduate and the undergraduate levels in both theoretical and applied statistics; (b) to conduct research in the fields both of theoretical and of experimental statistics; (c) to provide statistical services for the several programs of the University of Georgia as the need for such services shall arise.

Since activities of the Institute are University-wide, crossing over school and college lines of administration, the Director reports directly to the Dean of Faculties. Members of the Institute Staff and Faculty may hold joint appointments with other schools and colleges of the University. For convenience, statistics courses and staff are listed after the Department of Mathematics in the College of Arts and Sciences. Qualified graduate students in statistics may pursue courses of study leading to the degree of Master of Arts in the field of Mathematical Statistics or to the degree of Master of Science in the field of Statistics.

A Computing Center equipped with an IBM 650 electronic computer has been established within the Institute as a unit of the Experimental Statistics Laboratory.

THE UNIVERSITY OF GEORGIA PRESS

The University of Georgia Press was established in 1939. One of its purposes is to advance learning and disseminate knowledge by the publication

of books that in their content and presentation contribute to a better understanding of human affairs. Another purpose is to encourage creative literary and scientific work by providing facilities for the publication of the results of such work. The University Press is glad to consider for publication not only the work of University professors but the productions of scholars throughout the nation. A Board of Directors appointed by the Board of Regents and an Advisory Faculty Committee appointed by the President of the University control the publishing policies and supervise the work of the University Press.

MIMEOGRAPHING

Another service offered by the Press is mimeographing, available to departments and organizations of the University.

For information regarding the Publications or work of the University Press, communications should be addressed to Director of the University of Georgia Press, Athens, Georgia. A list of the publications of the Press will be sent on request.

ATHLETIC ASSOCIATION

The University of Georgia conducts a complete program of intercollegiate athletics. The University is a member of the Southeastern Athletic Conference and abides strictly by the regulations and policies of the conference. Although the University Faculty has general control of internal policies of the University relating to all phases of intercollegiate athletics, the University of Georgia Athletic Association has been created to facilitate the handling of the business and financial side of the intercollegiate program. The President of the University is ex-officio chairman of the Board of Directors and a majority of the members of the Board are faculty members. The other members of the Board are alumni and friends of the University.

The funds of the Athletic Association are subject to the control of the Board of Regents.

ALUMNI SOCIETY

The University of Georgia Alumni Society was organized in 1834 and has been continuously active since that time. Its purpose is to keep graduates and former students of the University interested in and in touch with one another and also to encourage them to manifest a continued interest in the University. The Alumni office has now on file folders and address cards of approximately 40,000 living alumni.

All persons who at any time were matriculated as regular students in the University at Athens are eligible for membership in the Society. A member who contributes annually to the Alumni Fund has the privilege of voting on all business matters, is eligible for election as an officer in the Society, and receives a subscription to the *Alumni Record*, a monthly magazine about alumni and campus activities. Students are invited to visit the Alumni Office, in the Academic Building, to confer with the Staff, and to learn about the general work of the Society.

The government of the Society is in the hands of a Board of Managers elected by the active members of the Society. Officers of the Society are elected annually. "Alumni Day," the time for class reunions and other alumni celebrations, is held each year at Commencement.

The Director of Alumni Relations is Tyus Butler, whose office is on the second floor of the Academic Building.

Associate Director of Alumni Relations is William M. Crane. Larry Pinson is Field Representative of the Society.

THE UNIVERSITY OF GEORGIA FOUNDATION

In 1937 the Alumni Society through its officers sponsored the organization of the University of Georgia Foundation. The Foundation is a corporation under the laws of the State of Georgia and has a self-perpetuating Board of Trustees. The Board consists of forty alumni elected from various classes and sections of the state. In addition there are seven trustees emeritus.

The purposes of the University Foundation are to develop the facilities of the University and to strengthen its financial resources by encouraging gifts for the benefit of the University and also to receive, hold, and administer such gifts in accordance with the instructions of the donors. The Board of Trustees of the University Foundation is particularly interested in receiving donations and bequests which will enable it to make financial provision for University needs other than those that are adequately met by state appropriations.

The officers of the University of Georgia Foundation at the present time are Mr. Harrison Jones, President; Mr. Francis M. Bird, Vice President; Mr. Inman Brandon, Secretary; and Mr. Robert B. Troutman, Treasurer. Information regarding the Foundation may be obtained from Inman Brandon, Secretary, 310 Fulton Federal Building, Atlanta 3, or from the President of the University.

The following funds are administered by the University of Georgia Foundation. In addition there are funds listed under Undergraduate Scholarships, Honors, Awards and Prizes which are administered by the Foundation.

THE UNIVERSITY OF GEORGIA FOUNDATION UNRESTRICTED FUND. The earned income from the unrestricted portion of the University of Georgia Foundation Fund goes primarily to the supplementing of salaries of outstanding professors on the University campus.

JOHN J. WILKINS MEMORIAL FUND. Established in 1941 by John J. Wilkins, Jr. as a memorial to his father for the maintenance of Camp Wilkins.

MEMORIAL GATEWAY FUND. Established in 1945 by the class of 1921 to erect a memorial.

M. G. MICHAEL AWARD FUND. Established in 1946 by Leroy and David Michael in honor of their father to provide an annual award to some member of the faculty of the College of Arts and Sciences for excellence in research.

ARTHUR LUCAS MEMORIAL FUND. Established in 1946 by Mrs. Margaret C. Lucas in memory of her husband to promote research and study in audio-visual education.

THE ROBERT BROWN FUND. Created in 1956 in memory of Robert Brown (who, after graduating in 1941, gave his life for his country in World War II) to encourage scholarship in, and to provide for lectures for, the School of Law at the University.

THE FERDINAND PHINIZY LECTURESHIP FUND. Established in 1949 by

Dr. F. P. Calhoun in memory of his grandfather, to provide from income, for lecture by persons of national renown.

PHI DELTA THETA MEMORIAL FUND. Established in 1949 to provide funds to be lent to the fraternity to finance its chapter house.

THE CRESWELL RESEARCH FUND. Established in 1951 in honor of Miss Mary E. Creswell. The income from this fund must be employed either for family grants, for graduate research, or for acquisition of equipment for use in research, in the School of Home Economics.

B. SANDERS WALKER MEMORIAL FUND. Established in 1952 by B. Sanders Walker as a memorial to his father and grandfather. The income from the fund may be used to benefit the University as the Trustees of the Foundation determine.

ANN MCWHORTER MEMORIAL FUND. Established in 1956 by Dr. William B. McWhorter in memory of his daughter. The income is to be used to supply books and periodicals for the libraries at the University.

THE RAYONIER FOUNDATION GRANT. Established in 1956 to supplement the regular compensation of the Dean of the School of Forestry for ten years.

FORESTRY FUND. Established in 1957 by the Forestry Alumni Association to benefit the School of Forestry and students attending that school.

SIGMA CHI FUND. Established in 1959 to provide funds to be lent the fraternity to finance its chapter house and for scholarships.

THE GRADUATE SCHOOL

GERALD BOONE HUFF, B. A., M. A., Ph.D., *Dean*

ROBERT ANDERSON MCRORIE, B. S., M. S., Ph. D., *Associate Dean*

HISTORICAL NOTE

Although the first statutes of the University contemplated resident graduate students, it was the custom here (as it was in many other colleges and universities) to confer the degree of Master of Arts upon any Bachelor of Arts of good character, who, three years or more after graduation, made application for the degree and paid a required fee. This practice continued to be followed until 1868, at which time a course of study was laid down which candidates for the master's degree were expected to pursue. From 1869 until 1890 the regulations required the candidate to complete successfully the most advanced course in each of the academic (non-professional) schools. In 1892 the requirements for the degree became substantially the same as they are now, though slight modifications have been made from time to time.

Graduate offerings by the University continued to be limited to the master's degree until 1936. Since that time the offering of programs leading to the degree of Doctor of Philosophy in thirteen fields has been authorized.

Prior to 1910 the graduate work of the University was supervised by the faculty, chiefly through its Committee on Graduate Courses. In 1910 the Board of Trustees set the work apart by the creation of the Graduate School and the appointment of its first dean. In 1940 a Graduate Faculty was established with authority to determine the policies and the standards that are to be applied to graduate work in the University.

GENERAL ADMISSION PROCEDURE

An applicant for admission to the Graduate School should secure from the office of the Graduate School blanks to be used in applying for general admission to the University of Georgia and specific admission to the Graduate School. These applications must be completed 20 days before the opening of the quarter in which the student wishes to register and should be submitted at least six weeks before registration day. *Two official transcripts* of all courses taken by the applicant in college or university must be sent directly to the Dean of the Graduate School from the Registrar of the institution concerned. These transcripts provide information necessary to the dean and the major department and *must be in their hands before the admission of the student may become final.*

A graduate of an accredited college whose transcript is acceptable is admitted as a *prospective candidate* for the degree for which he applies or may be admitted as a *non-degree candidate*.

Graduates of non-accredited colleges may be admitted to the University as *unclassified post-graduates* and may later be admitted to full graduate standing on a basis of examinations and course work designed to indicate their qualification for regular graduate study.

Only those students who are formally admitted to the Graduate School will be eligible to register in the Graduate School or take graduate courses. Graduates who have been denied admission to the Graduate School, if registered in the University, will be registered through the undergraduate

school or college of their choice and classified as *irregular students*. No irregular student will be permitted to register for graduate courses, and no work taken by a student while under this classification may be counted for credit toward any graduate degree.

Should the work of the irregular student prove to be of such quality as to justify his admission to graduate status, reconsideration may be given to his application for admission at any time after he has completed fifteen quarter-hours of approved course work and has taken the Graduate Record Examination.

Any applicant applying for admission must fill out an Application for Admission to the University and must be admitted by the Director of Admissions subject to the requirements stated under the heading Admissions in the General Information Section.

REGISTRATION

After a student has been granted admission to the Graduate School and to the University, his next step will be that of registration for his first quarter's work. The University Calendar is printed on page three of this General Catalogue, and this calendar indicates the registration dates for each quarter. The student will begin the process of registration by securing from the Office of the Registrar permission to register. He will then seek the advice of an authorized member of the staff of his major department in planning his work for the quarter and follow the usual procedure in registration. His registration must be approved by the Dean of the Graduate School.

NUMBERING OF COURSES

Courses numbered 800 and above are open only to graduate students. At least one third of the program of a candidate for the Master of Arts or Master of Science degree must be in courses in which only graduate students are registered. Certain courses devoted to basic fundamental knowledge carry a 400 number for an undergraduate in the senior division and a corresponding 600 number for a graduate student. Other courses intended primarily for candidates for professional degrees carry a 500 number for an undergraduate in the senior division and a 700 number for a graduate student.

Even though he may have a baccalaureate degree, an irregular student may not register for a course bearing an 800 number and must register by the undergraduate number for any course which he may take.

The normal load for a graduate student is 15 quarter hours. Students holding Graduate Assistantships and Teaching Assistantships are expected to enroll for proportionately smaller loads.

DEGREES

The Graduate School recognizes the fact that it exists for a two-fold purpose. In the first place, it seeks to promote scholarship that is thorough, creative, independent in character and fundamental in its approach; it emphasizes such scholarship without specific concern with its applications. In the second place, it seeks to provide advanced training of a scholarly and effective kind in the professional and vocational fields represented in the program of the University.

In keeping with the two purposes mentioned above, the work of the Graduate School is organized under two divisions: A Division of Advanced

General Study, and a Division of Advanced Professional Study. The degrees awarded upon the recommendation of the Graduate Faculty are likewise classified as Advanced General degrees (Master of Arts, Master of Science, and Doctor of Philosophy) and Advanced Professional degrees (Master of Business Administration, Master of Chemistry, Master of Education, Master of Forestry, Master of Home Economics, Master of Landscape Architecture, Master of Laws, Master of Art Education, Master of Music Education, Master of Fine Arts, Master of Agricultural Extension, and Doctor of Education).

The degrees of Master of Arts, Master of Science, and Doctor of Philosophy may be taken in any field of study represented in the University, provided the nature of the subject matter involved gives appropriateness to the degree concerned and provided the adequacy of staff and facilities justifies the offering of the degree.

A. ADVANCED GENERAL DEGREES

MASTER OF ARTS. The degree of Master of Arts will be conferred upon candidates who have met the prescribed requirements for this degree with major study in one of the following fields: Business Administration, Economics, Education, Fine Arts, Geography, History, Journalism, Languages and Literature, Law, Mathematics, Mathematical Statistics, Philosophy, Political Science, and Sociology.

MASTER OF SCIENCE. The degree of Master of Science will be conferred upon candidates who have met the prescribed requirements for this degree with major study in one of the following fields: Agricultural Economics, Agricultural Engineering, Agronomy, Animal Husbandry, Bacteriology, Botany, Chemistry, Dairy, Entomology, Food Technology, Forestry, Home Economics, Horticulture, Pharmacy, Physics, Plant Pathology and Plant Breeding, Poultry Husbandry, Psychology, Statistics, Veterinary Pathology, and Zoology.

DOCTOR OF PHILOSOPHY. The University has established this degree for the purpose of providing properly qualified students with the opportunity to pursue research and other scholarly activity beyond the point that is possible in programs for the master's degree. At present, opportunity for such advanced graduate work is provided in Agronomy, Animal Nutrition, Bacteriology, English, Chemistry, Food Technology and Dairy Manufacturing, History, Mathematics, Physics, Plant Sciences, Poultry, Psychology, and Zoology. Other fields will be added from time to time as conditions seem to justify. An applicant who is looking forward to work at this level should communicate with the Dean of the Graduate School in advance with reference to the possibility of pursuing work in the field of his choice.

The Ph.D. degree will not be granted upon the completion of any definite amount of work prescribed in advance. It will be granted in recognition of proficiency in research, breadth and soundness of scholarship, and thorough acquaintance with a specific field of knowledge. Evidence of such attainment must be provided through the presentation of an acceptable thesis based upon independent research and through the satisfactory passing of such written and oral examinations as may be prescribed.

REQUIREMENTS—MASTER OF ARTS AND MASTER OF SCIENCE

1. **ADMISSION.** In order for a student to be given unqualified admission to the Advanced General Division (1) he must have completed the requirements for the bachelor's degree in a college accredited by the proper re-

gional accrediting association, (2) he must rank in the upper half of his class in his undergraduate college work, (3) he must have completed the equivalent of our undergraduate major in the general field in which he proposes to do his graduate major, (4) he must have completed at least 90 quarter hours of work (exclusive of his major) appropriately distributed in courses devoted to basic factual knowledge in the fields of the arts, English language and literature, foreign languages, mathematics, the natural sciences, and the social sciences, and (5) his admission must be recommended by the members of the staff of his prospective major department and approved by the Dean of the Graduate School.

2. LANGUAGE REQUIREMENTS. All candidates for graduate degrees are expected to show correctness and good taste in their use of English, both written and oral. Upon the option of the students' major department, a reading knowledge of French or German may be required of candidates for Advanced General degrees. (The College of Arts and Sciences requires a reading knowledge of French, German, Russian, or Spanish of students majoring in any of its departments).

3. PROGRAM. All prerequisites having been met, the requirements for a Master of Arts or Master of Science degree in any field are the satisfactory completion of a program of study which consists of courses carrying a minimum credit value of 40 quarter hours plus the writing of an acceptable thesis. The courses taken must form a logical whole. The program of study must not include any course that has formed a part of the student's program of study for any other degree previously taken. The program must be approved in advance by the major professor and the Dean of the Graduate School.

4. GRADUATE RECORD EXAMINATION. This examination is required of all students seeking Advanced General or Advanced Professional degrees. It should be taken during the student's first quarter of residence. The dates on which the examination may be taken are indicated in the Graduate School Calendar.

5. ADMISSION TO CANDIDACY. Before the first day of classes of a student's last quarter of residence, he must file an Application for Admission to Candidacy in the office of the Graduate School. This is essentially a certification by the student's major professor and the Dean of the Graduate School that the student's progress to that point is satisfactory. Approval of the application is based on the following specific requirements:

- a. Appointment of a member of the Graduate Faculty to act as the student's major professor.
- b. Certification by the student's major professor that
 - (1) any undergraduate course which has been required has been completed;
 - (2) the Graduate Record Examination has been taken and all other requisite preliminary examinations have been passed;
 - (3) foreign language requirements, if specified, have been met, and
 - (4) the student has demonstrated his ability to do advanced work of acceptable character in the field of his choice;
- c. The presentation of an outline of his program of study and a plan of work proposed as a basis for his thesis which have the approval of his major professor and the Dean of the Graduate School.

6. REQUIRED STANDING. An average of B+ must be maintained on the program of study used to satisfy degree requirements, and no grade below C will be accepted.

7. EXAMINATIONS. In addition to all examinations required for admission to candidacy and all examinations on the courses taken, the candidate must

pass an oral examination covering his course work and thesis. This examination will be conducted by a committee appointed by the Dean of the Graduate School, but it will be open to any member of the faculty who may desire to attend.

8. RESIDENCE. The minimum residence requirement for a master's degree is one academic year, or three full quarters.

9. TIME LIMIT. All work credited toward the master's degree must be completed within six years. Extension of time may be granted only on conditions beyond the control of the individual.

10. ACCEPTANCE OF GRADUATE CREDIT BY TRANSFER. Transfer of credit for graduate courses is never automatic. In cases in which a course taken at another accredited institution does constitute a logical part of the student's program, transfer of credit may be allowed if recommended by the student's major professor and approved by the Dean of the Graduate School. The credentials presented must show that the student was of regular graduate standing in the institution concerned. Such transfer of credit cannot exceed ten quarter hours and cannot reduce the residence requirement to less than 30 weeks.

11. EXTENSION AND CORRESPONDENCE. Work done in extension or by correspondence will not be credited toward the master's degree.

12. APPLICATION FOR GRADUATION. At the beginning of the quarter in which the candidate for a master's degree expects to be granted the degree, he must file with the Dean of the Graduate School an application for graduation. The application must be accompanied by a receipt showing that the candidate has paid his diploma fee of \$10.

13. THESIS. A thesis is required for Master of Arts and Master of Science degrees. It must be based upon primary source materials relating to some problem within the field of the major. It must show that the student has exercised independence of judgment and correctness and good taste in the use of English. Due acknowledgment of the work of others must be made, and an accurate bibliography of all literature used must be included. The research of the student and the preparation of his thesis must be under the direction of a member of the Graduate Faculty who will be designated as his major professor. This person is also responsible for the planning of his program of study.

In each department the thesis carries the number 930, and it may carry from 5 to 50 quarter-hours of credit, depending upon the amount of work devoted to it by the student. This credit must be in addition to the regular course credit requirement of 40 hours.

The master's thesis must be approved by the major professor and placed in the hands of the Dean of the Graduate School for a reading committee at least three weeks before the date of graduation. Two bound copies must be deposited with the University Library and one bound copy with the student's major department before the degree is granted. These copies must contain the written approval of the major professor, the chairman of the reading committee and the Dean of the Graduate School.

14. ATTENDANCE UPON GRADUATION EXERCISES. A candidate for a degree must attend the graduation exercises at which his degree is to be conferred, unless he is excused in writing by the Secretary of the Faculty.

REQUIREMENTS—DOCTOR OF PHILOSOPHY

1. ADMISSION. A student will be permitted to register for advanced graduate courses or undertake research, provided the Graduate Faculty is

satisfied that he is a person of proper attainment and promise and provided the desired courses can be adequately given and the research adequately supported and directed. No course taken or other work done will be recognized as applying toward the Doctor of Philosophy degree until the applicant has been formally admitted to candidacy for that degree.

2. **ADVISORY COMMITTEE.** When a student is admitted as a prospective candidate for the Doctor of Philosophy degree, the Dean of the Graduate School will appoint a committee of three to act as his advisers for the period of his study. The members of this committee will assist him in outlining his program and in choosing a subject for his dissertation, and they will advise him in all other matters connected with his program of study and research. The chairman of this committee will be his major professor.

3. **RESIDENCE.** The granting of this degree presupposes a minimum of three full years of study beyond the bachelor's degree, and it cannot be secured through summer work alone. At least three consecutive quarters must be spent in resident study on this campus. If the student holds a part-time assistantship or has other part-time duties, the residence requirement will be increased to provide the equivalent of three quarters of full-time study in residence.

4. **PROGRAM OF STUDY.** The program of study to be followed by the student should be submitted during the first year of his work as a prospective candidate for the Ph.D. degree. It must constitute a logical whole. All requirements for the degree, except the thesis and the final oral examination, must be completed within a period of six years. This time requirement dates from the admission of the student as a prospective candidate for the Ph.D. degree.

5. **PRELIMINARY EXAMINATION.** The satisfactory passing of formal preliminary written and oral examinations is required of the student *before admission to candidacy*. These examinations are given by a committee appointed by the Dean of the Graduate School, and the oral examination is open to members of the faculty generally.

6. **FOREIGN LANGUAGES.** A reading knowledge of two modern foreign languages is required of each candidate for the Doctor of Philosophy degree. French and German are the recommended languages, but any modern foreign language may be substituted for one of these where it can be shown to have greater pertinence to the student's program of study and interests. Such a substitution must be recommended by the student's major professor and approved by the Advanced General Committee and the Dean of the Graduate School.

7. **ADMISSION TO CANDIDACY.** Not later than one academic year before the proposed graduation date, a prospective candidate for the Doctor of Philosophy degree must file a formal application for Admission to Candidacy. This application must show that (1) the *preliminary examinations* described above have been passed; (2) the foreign language requirements have been met; and (3) a program of study and research has been approved by the *Advisory Committee* and the Graduate Dean. Admission to candidacy is a certification that the student has demonstrated the scholarly maturity necessary for independent research.

No member of the faculty of the University of Georgia above the rank of instructor may become a candidate for a doctor's degree at the University.

8. **APPLICATION FOR GRADUATION.** At the beginning of the quarter in which the candidate expects to be granted the degree, he must file with the Dean of the Graduate School an application for graduation. The applica-

tion must be accompanied by a receipt showing that the candidate has paid his diploma fee of \$25.

9. **DISSERTATION.** Each candidate for the doctorate must present a dissertation, or thesis, on some subject connected with his major field of study. The dissertation must represent originality in research, independent thinking, scholarly ability, and technical mastery of some field. Its conclusions must be logical, its literary form must be acceptable, and its contribution to knowledge should merit publication.

When the dissertation has been read and approved by the student's major professor and the members of his advisory committee, it may be submitted to the Dean of the Graduate School with a request that a reading committee be set up to represent the Graduate Faculty in passing upon its acceptability. For this purpose three typewritten copies of the completed thesis must be submitted, and this must be done at least four weeks before the proposed date of graduation. When the dissertation has been finally approved, the original copy in manuscript form and one bound copy must be filed with the University Library, and one bound copy with the major department. Each copy must carry a certificate of approval signed by the major professor, the chairman of the reading committee and the Dean of the Graduate School.

Before the degree will be awarded, the student must file with the Dean of the Graduate School three copies of an acceptable abstract (not more than 500 words) of the dissertation. At the same time, he must file a receipt showing that he has deposited with the Treasurer of the University the amount of \$25 to cover the cost of microfilming the dissertation. If the student desires to have his dissertation copyrighted, he must pay an additional charge of \$5 plus the cost of two positive prints required by the Copyright Office.

10. **FINAL EXAMINATION.** When the candidate's dissertation has been approved and all other requirements of his program have been met, his major professor may recommend to the Dean of the Graduate School that he be admitted to his final oral examination. This examination will be based upon his dissertation and upon the general fields of his program of study. The final examining committee will consist of such persons as may be appointed to it by the Dean of the Graduate School. All final oral examinations will be open to any member of the faculty who may desire to attend.

B. ADVANCED PROFESSIONAL DEGREES

MASTER OF BUSINESS ADMINISTRATION. The minimum requirement for this degree is a program of 60 quarter hours of approved course work with a minimum residence of four quarters. Any approved baccalaureate degree may be accepted as the prerequisite background for the program. A student who holds the equivalent of the Bachelor of Business Administration degree may be able to qualify by meeting the minimum requirements. Others will be required to complete from 5 to 40 hours of additional work in business or economics courses, depending upon the nature of the applicant's previous training.

Candidates for this degree must complete for credit a minimum of 15 quarter hours in courses numbered 800. At least 45 hours of the student's program must be in the fields of business administration and economics.

MASTER OF CHEMISTRY. Prerequisite degree: Bachelor of Science in Chemistry or its approximate equivalent. For students who hold assistant-

ships, this degree will require a minimum of two years of graduate work, the second year being devoted in large part to research.

A student will be admitted to candidacy for this degree only after he has shown a reading knowledge of both French and German and after he has passed preliminary written, and possibly oral examinations given by the Department of Chemistry. These examinations cover in a general way the divisions of inorganic, organic, analytical and physical chemistry. The written examination on these four fields will constitute the student's final written examination. Any student who fails to pass the examinations on two of these divisions or who fails to pass any re-examination will be requested to withdraw his application for admission to candidacy for this degree. The final oral examination is given after the thesis has been approved. It is primarily a defense of the thesis.

The degree of Master of Chemistry is for those students who intend to follow chemistry as a profession, especially for those who expect to continue their studies toward the doctorate in chemistry. It, therefore, differs from the degree of Master of Science with a major in chemistry by being more professional in character.

MASTER OF EDUCATION. This degree is designed for the students whose vocational objectives call for a background of professional training rather than experience in research. A student who contemplates becoming a candidate for this degree should seek the advice of the Chairman of the Division of Graduate Studies of The College of Education as to the program he should follow. This degree may be attained through either of the two following programs of work:

A. The requirement for the degree of Master of Education may be met by the completion of an approved program of 11 courses (55 quarter hours) and residence of a minimum of 36 weeks, with at least three of the courses in the student's program being in fields other than Education. Under this plan, the following two courses must be included in the student's program: Education 826, *Methods of Applied Research in Education*, and Education 921, *Laboratory in Applied Education*.

B. Under this option, the requirements for the Master of Education degree may be met by 60 quarter hours of approved course work, these courses to include a minimum of 20 quarter hours outside the field of Education.

MASTER OF ART EDUCATION. Prerequisite degree: An approved baccalaureate degree. The minimum requirement for this degree is an approved program of study consisting of 50 quarter hours of course work in Art, Art Education, and Education combined, plus Art Education 921, *Laboratory in Applied Art Education*. A minimum of four quarters of resident study is required.

MASTER OF MUSIC EDUCATION. Prerequisite degree: An approved baccalaureate degree. The minimum requirement for the Master of Music Education degree is an approved program of study consisting of 50 quarter hours of course work in Music, Music Education and Education combined, and five quarter hours in applied Problems in Music. A minimum of four quarters of residence will be required. A general musicianship examination must be passed during the final quarter of work.

MASTER OF FINE ARTS. The requirement for this degree is the satisfactory completion of a minimum approved program of 50 quarter hours of course work and a creative project or problem to be designated as 921, which will carry five quarter hours credit. The project requirement may be satisfied by a large composition in *music* or by a solo recital which indicates

a graduate quality of work (recording of the recital must be deposited in the University Library), a creative project or original research in theatre history, aesthetics, or criticism in *drama*, or a creative project of acceptable quality in *art*.

In *art*, emphasis will be placed upon a high degree of technical and artistic accomplishment. The student must also have a general knowledge of art history and criticism.

In *drama*, emphasis will be placed not only upon a high degree of technical and artistic accomplishment but also on a general knowledge of theatre history and dramatic literature.

In *music*, the student may select composition, musicology or applied music as his or her special field.

The prerequisite degree for a program in art, drama, or music is the Bachelor of Fine Arts, or its equivalent.

MASTER OF FORESTRY. Prerequisite: Bachelor of Science in Forestry degree or equivalent. The minimum requirement for the degree of Master of Forestry is an approved program carrying 55 quarter hours of credit. Twenty quarter hours must be in forestry and so selected as to form a logical major. The program must include Forestry 921 for which the student will be allowed five quarter hours credit. Fifteen quarter hours of additional credit must be earned in forestry or a closely related field. The remaining 15 quarter hours must be taken outside the field of forestry. No thesis is required.

MASTER OF HOME ECONOMICS. Prerequisite degree: Bachelor of Science in Home Economics, or equivalent degree. The minimum requirement for the degree of Master of Home Economics is an approved program of 11 courses (55 quarter hours) with four quarters of resident study. At least four courses must be taken in a selected field in home economics. These must include Home Economics 921, *Problems in Home Economics* on which an acceptable written report must be presented. At least two courses in the student's program must be from fields other than home economics.

MASTER OF LANDSCAPE ARCHITECTURE. Prerequisite degree: Bachelor of Landscape Architecture, Bachelor of Architecture or equivalent degree. The requirement for this degree is an approved program of at least 40 quarter hours of course work and an acceptable thesis.

MASTER OF LAWS. Prerequisite degree: Bachelor of Laws from an approved school of law. At least one academic year of full time study is required. The thesis and not less than one-half of the student's course work must be in the general field of law. The program for this degree provides opportunity for the student to specialize in a chosen field of law or extend his knowledge of the general field of law.

DOCTOR OF EDUCATION. Among workers in the field of Education a demand has developed for advanced professional training which differs in purpose and content from the principles upon which the degree of Doctor of Philosophy is based. As a consequence of this demand, the University of Georgia has followed the example of many American universities in establishing the degree of Doctor of Education. This degree places major emphasis upon training for a career as a skilled practitioner in administration, teaching, or other professional educational service.

GENERAL REQUIREMENTS FOR PROFESSIONAL MASTERS' DEGREES

The foregoing statement of Advanced Professional Degrees indicates the specific requirements for each professional master's degree. The general requirements which apply alike to all of them are summarized below.

1. **ADMISSIONS.** In order for a student to be granted full admission as a prospective candidate for a Professional Master's degree (1) he must have completed the requirements for the bachelor's degree in a college accredited by the proper regional accrediting association, (2) he must have ranked in the upper half of his class in his undergraduate college work, (3) he must have completed the specific professional work that is considered by the professional school or college concerned to constitute a necessary background for advanced professional training, (4) he must exhibit the personal qualities and the intellectual capabilities that are considered essential to success in his chosen field, and (5) he must be recommended by the staff of his prospective major department, school, or college and approved by the Dean of the Graduate School.

2. **LANGUAGE REQUIREMENTS.** All candidates for graduate degrees are expected to show correctness and good taste in their use of both written and spoken English. There is no foreign language requirement for any professional master's degree except Master of Chemistry.

3. **PROGRAM.** The program of study of each candidate for a professional master's degree will be determined by the school or college concerned in accordance with requirements previously established and approved by the Graduate Faculty for the advanced professional degree which the student seeks. Each program will be subject to approval by the dean of the college concerned and the Dean of the Graduate School.

4. **GRADUATE RECORD EXAMINATION.** This examination is required of all students seeking Advanced General or Advanced Professional degrees. It should be taken during the student's first quarter of residence. The dates on which the examination may be taken are indicated in the Graduate School Calendar.

5. **ADMISSION TO CANDIDACY.** An Application for Admission to Candidacy must be filed in the office of the Graduate School before the first day of classes in the student's final quarter of residence. Approval of this application is a certification that the student has made satisfactory progress to this point and is granted subject to the conditions below:

- a. Appointment of a faculty member to act as the student's major professor.
- b. Certification by the student's major professor and the dean of his college that
 - (1) any required undergraduate work has been completed,
 - (2) the Graduate Record Examination has been taken and all other requisite preliminary examinations have been passed,
 - (3) the student has demonstrated an aptitude for work in the field of his choice and an ability to do advanced work of an acceptable character;
- c. The presentation of a program of work that has the approval of his major professor, the dean of the school or college concerned, and the Dean of the Graduate School.

6. **REQUIRED STANDING.** An average of B+ must be maintained on the program of study used to satisfy degree requirements, and no grade below C will be accepted.

7. **EXAMINATIONS.** In addition to all examinations required for admission to candidacy and all examinations on the courses taken, the candidate must pass a final oral examination based upon his total program for the degree. This examination will be conducted by a committee appointed by the Dean

of the Graduate School at the request of the dean of the college concerned. It will be open to any member of the faculty who may desire to attend.

8. **RESIDENCE.** The minimum residence requirement for any advanced professional degree is three quarters, and certain of these degrees will require from four to six quarters.

9. **TIME LIMIT.** All work credited toward the master's degree must be completed within six years. Extension of time may be granted only on conditions beyond the control of the individual.

10. **ACCEPTANCE OF GRADUATE CREDIT BY TRANSFER.** Transfer of credit for graduate courses is never automatic. In cases in which a course taken at another accredited institution does constitute a logical part of the student's program, transfer of credit may be allowed if recommended by the student's major professor and approved by the Dean of the Graduate School. The credentials presented must show that the student was of regular graduate standing in the institution concerned. Such transfer of credit cannot exceed ten quarter hours and cannot reduce the residence requirement to less than thirty weeks.

11. **EXTENSION AND CORRESPONDENCE.** Graduate credit is not allowed for work done in extension or by correspondence.

12. **APPLICATION FOR GRADUATION.** At the beginning of the quarter in which the candidate for a master's degree expects to be granted the degree, he must file with the Dean of the Graduate School an application for graduation. The application must be accompanied by a receipt showing that the candidate has paid his diploma fee of \$10.

13. **ATTENDANCE UPON GRADUATION EXERCISES.** A candidate for a degree must attend the graduation exercises at which his degree is to be conferred, unless he is excused in writing by the Secretary of the Faculty.

REQUIREMENTS—DOCTOR OF EDUCATION

1. **ADMISSION.** Students who desire to pursue advanced professional training in Education beyond the master's degree and with a view to becoming candidates for the Doctor of Education degree will be expected to file formal application and present themselves to the faculty of the College of Education for special tests and interviews. Recommendation on the student's admission will be made by the College of Education only after its screening procedures have been carried out. Admission will be upon the recommendation of the Dean of the College of Education, or his authorized representative, and approval by the Dean of the Graduate School.

2. **ADVISORY COMMITTEE.** When a student has been admitted as a prospective candidate for the Doctor of Education degree, the Dean of the Graduate School will appoint three persons recommended by the Dean of the College of Education to serve as an advisory committee for the student, the chairman of the committee being his major professor. The members of this committee will advise the student in planning his program of study, in choosing a subject for his dissertation, and in the pursuit of his program toward the degree.

3. **RESIDENCE.** The degree presupposes a minimum of three full years of study beyond the bachelor's degree and it cannot be secured through summer work alone. At least three consecutive quarters must be spent by the student in resident study on the campus of the University of Georgia. If the student holds a part-time assistantship or has other part-time duties, the residence requirement will be adjusted to make it equivalent to three quarters of full-time study. In individual cases, such modification of the

residence requirement as may seem necessary to meet the need for approved field work may be made, such modification being subject to approval by the student's advisory committee, the Dean of the College of Education and the Dean of the Graduate School.

4. **PROGRAM OF STUDY.** The program of study to be offered by the student for the degree should be submitted during the first year of his work as a prospective candidate for the degree. It must provide a major concentration in the field of Education and a minor concentration in courses outside the field of Education and significantly related to the student's vocational objectives.

All requirements for the degree except the thesis and final oral examination must be completed within a period of six years. This requirement dates from admission of the student as a prospective candidate for the Doctor of Education degree.

5. **PRELIMINARY EXAMINATION.** As a prerequisite to admission to candidacy for the Doctor of Education degree, the student must pass satisfactorily a formal preliminary examination (written or oral) on his major and minor areas of concentration. This examination will be administered by the student's advisory committee and such other persons as may be appointed by the Dean of the Graduate School.

6. **ADMISSION TO CANDIDACY.** Before the student may become a candidate for the Doctor of Education degree he must have had at least two years of successful experience in teaching or in a closely-related field of work, he must have had a broad background of training, and he must have demonstrated to the faculty of the College of Education those personal qualities that are considered by it to be essential to success in the field of teaching. These conditions having been met, the student may be admitted to candidacy upon (1) approval of the student's program of study and proposed research for the thesis, (2) satisfactory passing of the preliminary examinations, (3) the demonstration of such competency in the methodology of educational research and such proficiency in the use of language as his advisory committee requires of him. Application for admission to candidacy must be filed with the Dean of the Graduate School for his approval not less than one academic year before the proposed date of graduation.

No member of the faculty of the University of Georgia above the rank of instructor may become a candidate for a doctor's degree at the University.

7. **APPLICATION FOR GRADUATION.** At the beginning of the quarter in which the candidate expects to be granted the degree, he must file with the Dean of the Graduate School an application for graduation. The application must be accompanied by a receipt showing that the candidate has paid his diploma fee of \$25.

8. **DISSERTATION.** The dissertation required of the candidate for the Doctor of Education degree is the most important single requirement for the degree. It should demonstrate the intelligent application of research techniques to the solution of a problem in educational practice. The problem chosen must be definite and appropriately limited in its scope, the method of investigation must be exact, the source materials must be intelligently evaluated, and the conclusions must be well supported. It is expected that the pursuit of this study will involve not less than one full year of work—frequently, much more. The finished dissertation must show correctness and good taste in the use of English.

The dissertation may be finally accepted only after it has been read and approved by a committee appointed by the Dean of the Graduate School.

When the finished dissertation has been read and given approval by the student's major professor and the members of his advisory committee, it may be submitted to the Dean of the Graduate School with the request that a reading committee be appointed to represent the Graduate Faculty in passing upon its acceptability. For this purpose three typewritten copies of the completed thesis must be submitted and this must be done not less than four weeks before the proposed date of graduation. When the dissertation has been finally approved, the original copy in manuscript form and one bound copy must be filed with the University Library, and one bound copy with the major department.

Before the degree will be awarded the student must deposit with the Dean of the Graduate School three copies of an acceptable abstract (not more than 500 words) of the dissertation, and a receipt showing that he has deposited with the Treasurer of the University the amount of \$25 to cover the cost of microfilming the dissertation. If the student desires to have his dissertation copyrighted, he must pay an additional charge of \$5 plus the cost of two positive prints required by the Copyright Office.

9. FINAL EXAMINATION. When the candidate's dissertation has been approved by the proper committee and all other requirements of his program have been successfully completed, he will be given a final oral examination upon his dissertation and upon the general fields of his major and minor concentration. The final examining committee will consist of the members of the student's advisory committee and such other persons as may be appointed to it by the Dean of the Graduate School. All final oral examinations will be open to any members of the faculty who may desire to attend.

PROGRAMS FOR TEACHER CERTIFICATION

A. FOR MAJORS IN EDUCATION

The Georgia State Board of Education is the agency which awards professional certificates. The College of Education has been approved to offer graduate programs designed to qualify students for the following types of five-year professional certificates:

Teachers.....	T-5 certificate
Principals.....	P-5 certificate
Superintendents.....	Su-5 certificate
Supervisors.....	Sv-5 certificate
Teacher-Counselors.....	T-5 certificate (counselors)
Visiting Teachers.....	VT-5 certificate

Effective September, 1960, the Georgia State Board of Education has authorized a salary schedule for persons holding sixth-year certificates. Information concerning the criteria employed by the Board in awarding sixth-year certificates may be obtained directly from the Director, Division of Instruction, Georgia State Department of Education.

In February, 1960, the Georgia State Board of Education approved the College of Education to offer graduate training programs leading to the T-6 certificate in the following teaching fields: Business Education, English, Mathematics, Foreign Languages, Science, and Social Studies.

The following additional programs of training leading to sixth-year level

certificates are being prepared for submission for the official approval of the State Board of Education:

Principals.....	P-6 certificates
Superintendents.....	SU-6 certificates
Supervisors.....	SV-6 certificates
Visiting Teachers.....	VT-6 certificates
Teachers.....	T-6 certificates

Admission to any of the sixth-year programs of training is made on the basis of special qualifying examinations. Inquiries concerning these qualifying examinations should be addressed directly to the Division of Instruction, State Department of Education, Atlanta.

B. FOR MAJORS IN FIELDS OTHER THAN EDUCATION

Candidates for degrees in fields other than Education may meet the requirements for a teaching certificate at the five-year level. Non-Education majors desiring to meet the requirements for the T-5 certificate must complete an approved program of graduate studies which includes a concentration in the teaching field supplemented by a minimum of 15 quarter hours of professional courses approved by the Chairman of the Division of Graduate Studies of the College of Education. The T-5 certificate can be obtained only by persons who hold a four-year professional certificate.

FELLOWSHIPS, ASSISTANTSHIPS, AND SCHOLARSHIPS

A number of qualified graduates may be given financial aid in the form of fellowships, assistantships, or scholarships while pursuing work leading to graduate degrees. Persons holding assistantships are expected to render certain services to the University. Fellowships and scholarships are derived from funds provided for the purpose of subsidizing outstanding students with special interests and carry no obligation to render service.

ALUMNI FOUNDATION FELLOWSHIPS. The Alumni Society Foundation supports these fellowships for students who hold master's degrees and are working toward a doctor's degree. The stipend is \$2,500 for the academic year. Application forms may be obtained from the Graduate School office and must be completed by February 15.

ADVANCED GRADUATE FELLOWSHIPS. These fellowships are available to students who have done one year of graduate work and who expect to teach. The stipend is \$2,000 for the academic year. Application forms may be obtained from the Graduate School office and must be completed by February 15.

ATLANTIC STEEL COMPANY GRADUATE FELLOWSHIP. The Atlantic Steel Company has established an annual fellowship for graduate study and research in Economic Geography in the Geography and Geology Department. The stipend is \$2,400 for a twelve month period and \$600 is provided for support of the research. Application should be made to the Head of the Department of Geography and Geology.

NATIONAL SCIENCE FOUNDATION CO-OPERATIVE GRADUATE FELLOWSHIPS. These fellowships are awarded on the basis of ability to citizens of the United States who have demonstrated special aptitude for advanced training in the sciences and who have been admitted to the Graduate School. The stipend is \$1,650 for those on a tenure of 9 months and \$2,200 for those on a tenure of 12 months. Application forms may be obtained from the office of the Graduate School and must be completed by the first week in November preceding the anticipated year of tenure.

GRADUATE ASSISTANTSHIPS. Graduate assistantships are considered as carrying third-time employment. This assistantship carries a stipend of \$1,500 for the nine-months' session of the University. The Assistant will be expected to assist with the instructional work of his major department, but he will not be placed in charge of any classes or laboratories.

Applications should be filed with the Dean of the Graduate School for consideration by the proper department.

RESEARCH ASSISTANTSHIPS. A limited number of research assistantships are open to graduate students who are qualified to assist faculty members in their research. The stipends carried by these assistantships vary in amount on a basis of the technical experience of the Assistant and the work required of him. The amount of graduate work that may be carried by the Research Assistant will depend upon the amount of work required of him under his assistantship.

Applications should be filed with the department in which the student proposes to work.

TEACHING ASSISTANTSHIPS. The University provides a few teaching assistantships that are open to students who hold the master's degree or its equivalent. These assistantships carry stipends ranging from \$1,500 to \$3,000 per year, depending upon the experience and the amount of work required of the Assistant.

The amount of graduate work that may be carried by the Teaching Assistant will depend upon the amount of teaching required of him.

These assistantships are not handled through the Graduate School. Application should be made directly to the student's major department.

WILDLIFE CONSERVATION ASSISTANTSHIPS. These assistantships are available to majors in zoology for graduate work in vertebrate ecology. The theses of students holding these assistantships will be directed toward the solution of problems in fisheries biology or wildlife conservation.

These assistantships carry a minimum stipend of \$2,400 for a 12-months' appointment.

Application should be made to the Department of Zoology.

COMER FUND ASSISTANTSHIPS. A portion of the income from the Edward T. Comer Fund is used each year to provide several assistantships for work in the Bureau of Business Research on problems relating to Georgia business. The stipend for these assistantships ranges from \$500 to \$900 for the nine-months' session of the University.

Applications should be directed to the Dean of the College of Business Administration.

PHELPS-STOKES GRADUATE SCHOLARSHIP. The holder of this scholarship must pursue studies in one of the following departments—Sociology, Economics, Education, or History. He must make a scientific study based upon the Negro and his adjustment to American civilization. The stipend of this scholarship at present is \$500 a year. Publication costs for the study will be paid from the Phelps-Stokes fund.

Application should be made to the student's major department in the University.

HENRY L. RICHMOND GRADUATE SCHOLARSHIP. A portion of the income from the Henry L. Richmond Fund is used to provide scholarships in the Department of Chemistry. One or more \$500 scholarships are available each year.

Applications should be directed to the Head of the Department of Chemistry.

MARTIN REYNOLDS SMITH FUND. By the gift of \$2,000, Mr. J. Warren Smith has established this fund in memory of his son, Martin Reynolds Smith. The interest from this investment is to be used as prizes for excellence in research in chemistry.

Applications should be directed to the Head of the Department of Chemistry.

EXPENSES

None of the above-mentioned fellowships, assistantships, or scholarships carry remission of fees. Upon recommendation of a student's major department, the Dean of the Graduate School is authorized to award to superior students a scholarship which pays out-of-state fees.

Residents of Georgia pay a fee of \$249 per academic year of three quarters, payable \$83 at the beginning of each quarter. Non-residents pay an additional amount of \$115 per quarter. Room, board and laundry will approximate \$200 per quarter. Books may be estimated at \$60 per year. The total estimated expenses will be about \$950 to \$1,050 per year for residents of Georgia.

All students are required to take the Graduate Record Examination before they are admitted to candidacy for a graduate degree. The fee for students taking this examination under the Institutional Plan (scheduled for regularly enrolled students) is \$5.

A candidate for the master's degree must pay a \$10 diploma fee at the beginning of the quarter of graduation.

A candidate for the doctor's degree must pay a \$25 diploma fee at least ten days before graduation. This fee covers cost of both the diploma and the hood.

UNIVERSITY RESEARCH

A university serves the three-fold purpose of the expansion, the preservation, and the dissemination of knowledge, and the graduate school is the division of the university organization that is most intimately concerned with the first of these three functions. Creative scholarship, largely in the form of research in the humanities, the social sciences, the natural sciences and the several fields of their application, constitutes the central endeavor around which graduate work must be developed. In recognition of this fact, the University of Georgia seeks to promote research through its General Research Program, several bureaus, and numerous grants and contracts obtained by its faculty members from sources outside the University itself. Agricultural research is conducted through the Agricultural Experiment Stations of the College of Agriculture.

Some of this research is directed specifically toward the elucidation of problems of applied significance, but much of it grows out of the tendency on the part of scholarly faculty members and students to explore fields of knowledge and to add to that knowledge. In all cases, the research of faculty members is open to participation of qualified graduate students and lends to the general enrichment of the graduate program.

Some examples of programs of research in which the University is participating follow. Other programs are listed with the college and school

sections such as the Bureau of Business Research in the College of Business Administration.

RESEARCH PROGRAM AT THE OAK RIDGE INSTITUTE OF NUCLEAR STUDIES

The University of Georgia is one of the sponsoring universities of the Oak Ridge Institute of Nuclear Studies located at Oak Ridge, Tennessee. Through this cooperative association with the Institute, the Graduate School has at its disposal the facilities of the National Laboratories in Oak Ridge and of the research staffs of these laboratories. When the master's or doctoral candidate has completed his resident work here, it is possible by special arrangement for him to go to Oak Ridge to do his research problem and prepare his thesis. Such transfer of the student to the Oak Ridge National Laboratories must be initiated through the recommendation of his major professor, and the thesis done there must be recommended by him for acceptance here.

Students may go to Oak Ridge on Oak Ridge Graduate Fellowships which have varying stipends determined by the number of dependents the student has and the level of work that he is doing. All arrangements for these fellowships will be made between the Dean of the Graduate School and the Institute.

MARINE BIOLOGY LABORATORY

In 1953, Mr. Richard J. Reynolds, Jr., made available to the University resources for the establishment on Sapelo Island, Georgia, of a Marine Biology Laboratory.

The Laboratory is staffed by the University and conducts research primarily in the problems of marine biological productivity as found in the estuarine waters adjacent to the Georgia Sea Islands. Interested groups of students and faculty members from the University are given the opportunity to observe the work of the Laboratory on field trips.

SOCIAL SCIENCE RESEARCH INSTITUTE

In keeping with the increasing impact of change on the people and culture of the South, the University established a Social Science Research Institute in 1960 to encourage and stimulate basic studies in the various disciplines concerned with such human affairs. It will also serve as a means for the discovery and development of research personnel, and hence will be of major support to graduate programs in the social sciences.

THE FRANKLIN COLLEGE OF ARTS AND SCIENCES

JOHN OLIN EIDSON, A.B., M.A., Ph.D., Litt.D., *Dean*

HOWARD TEMPLETON COGGIN, A.B., M.S., Ph.D., *Assistant to the Dean*

ORGANIZATION

The object of the College of Arts and Sciences is to offer to its students a liberal education. It strives to develop in the individual resourcefulness that will enable him to adapt himself to changing conditions and circumstances and to grapple intelligently with the problems the future is certain to bring. It also attempts to give the student an opportunity to concentrate in certain fields of study that may be helpful in laying a foundation for various professional pursuits.

CURRICULUM

The curricula of the College of Arts and Sciences for the freshman and sophomore years, except for a few elective courses, are fairly uniform and are required of all students. In the junior and senior years concentration in one or more of several fields of study is required. These fields of concentration are as follows:

DIVISION OF LANGUAGE AND LITERATURE: the departments of Classics, English, and Modern Foreign Languages.

DIVISION OF SOCIAL SCIENCES: the departments of Economics, Geography, History, Philosophy, Political Science, Religion, Sociology and Anthropology.

DIVISION OF PHYSICAL SCIENCES: the departments of Chemistry, Mathematics, Geology, and Physics and Astronomy.

DIVISION OF BIOLOGICAL SCIENCES: the departments of Bacteriology, Botany, Entomology, Psychology, and Zoology.

DIVISION OF FINE ARTS: the departments of Art, Music, and Speech and Drama.

DEGREES OFFERED

I. The degrees in which all of the work is taken in the divisions listed above, with the exception of fifteen hours of professional credit permitted as electives are:

BACHELOR OF ARTS, for which the major division may be Language and Literature, Social Sciences, Biological Sciences, Physical Sciences, Art, Speech and Drama, or Music.

BACHELOR OF SCIENCE, for which the major division must be Physical Sciences or Biological Sciences.

BACHELOR OF SCIENCE IN CHEMISTRY, for which the major subject must be Chemistry.

BACHELOR OF FINE ARTS, for which the major division must be Fine Arts.

BACHELOR OF MUSIC, for which the major subject must be Music.

BACHELOR OF SCIENCE IN PHYSICS, for which the major must be **Physics**.

II. The degrees offered in cooperation with other schools and colleges are:

A.B. or B.S. degree with provisions for a professional certificate for teaching in secondary school. See page 129.

A.B. degree with a pre-professional major in social work. See page 129.

A.B. degree combined with law, see page 144.

B.S. degree combined with medicine or veterinary medicine. See pages 145 and 146.

B.S. degree combined with medical technology. See page 146.

B.S. degree combined with B.S. in engineering. See page 146.

PRE-PROFESSIONAL COURSES

In addition to those professions listed above, the College of Arts and Sciences offers pre-professional courses as a foundation for study in nursing, (see page 143), dentistry, optometry, physical therapy, theology, and for programs in all professional schools and colleges in the University.

ACADEMIC ADVISERS

When an undergraduate student initially registers in the College of Arts and Sciences he is assigned to a faculty member who serves as his academic adviser during his first two years. This assignment is made on the basis of the expressed academic interests of the student. The academic adviser assists the student in registration, and is available during his office hours for counseling with the student about his study methods, his progress, his plans and purposes, and any other matters pertaining to his academic progress. He will hold required conferences with students who demonstrate either unusual ability or unsatisfactory results. He will advise sophomores on the choice of their fields of concentration and refer them to the appropriate department heads for the preparation of senior college sequences.

SELECTING MAJOR

On or before registering for the junior year the student must select the degree for which he is a candidate, the division in which he will take his major work, and the subject in this division in which he expects to major. See Item 5A, page 126. The professor in charge of the student's major subject is known as the student's *major professor*, and all courses constituting the student's major division program (both required and elective courses) must be approved by this adviser. When approved by the dean of the College of Arts and Sciences this program becomes a requirement for the degree. All approvals to be official must be in writing and filed in the Registrar's records.

ELECTIVE COURSES

In all degrees in the College of Arts and Sciences all courses in the University carrying credit of two or more quarter hours are open as electives to the extent allowed by the degree requirements when approved by the student's major professor and his dean. Not more than fifteen elective hours credit will be allowed for professional courses in the professional schools, except in the degrees with special provision for the teaching certificate.

COURSE NUMBER AND STUDENT CLASSIFICATION

Junior division courses are those numbered under 200; courses which may be either junior or senior division are numbered 200 to 299; senior division courses are numbered 300 or above.

A junior division student is one who has either less than 85 academic hours or a grade average below C on the 85 or more hours earned; a senior division student is one who (1) has 85 or more academic hours with a grade average of C or better and (2) has passed the Sophomore Comprehensive examination.

REFUSAL OF CANDIDACY FOR A DEGREE

The College of Arts and Sciences reserves the right to refuse candidacy for a degree to any student, regardless of the number of hours of credit the student may have, if his performance on the Sophomore Comprehensive examination is unsatisfactory or if he has failed to satisfy all specified junior division courses required in freshman and sophomore years, except those in Item 4C, page 126, or if he has failed to meet requirements regarding the Georgia Constitution and American and Georgia History.

ACADEMIC WORK LOAD

The normal load of work is 15-17 academic hours, except in a few programs in which 18 hours are required. For the conditions under which extra hours may be taken, see page 68.

DROPPING OF COURSES

Except in special cases a student will not be permitted to drop to less than a normal load of 15 academic hours. A student who drops to less than 15 hours of work after the first five days of the quarter will normally receive a grade of WF on the course or courses dropped.

Students registered for extra hours may be permitted by the Dean to drop to a normal load of 15 hours, but if the course is dropped after the first five days of the quarter and the grade received is W, the student forfeits for the next quarter the right to apply for extra hours.

TRANSFER STUDENTS

Students transferring from standard colleges and universities with junior classification will not be required to take the non-laboratory science courses offered in the freshman and sophomore years, provided their transcripts show that they have completed an equivalent number of hours in the division covered by these courses.

Students transferring from any of the junior colleges or other units of the University System to the College of Arts and Sciences are given full credit for all regular curriculum work completed with satisfactory grades. Any uncompleted required courses in the freshman and sophomore years must be taken.

THE HONORS PROGRAM

Director: C. JAY SMITH, JR.

An Honors Program was inaugurated in the College of Arts and Sciences in 1960. It is administered by the Director and an Honors Council.

Admission of students to the Honors Program is by invitation only, and is based on several indices, of which high school and college grades and performance on placement tests are the most important. Any faculty member can recommend a student to the Honors Council for admission. A student not in the College of Arts and Sciences is eligible to take honors work on the recommendation of his school or college.

Students admitted to the Honors Program are accorded the privilege of being taught in special sections of many of the basic beginning courses of the College. These sections are limited in size and are taught in seminar fashion. They are taught by the most experienced members of the faculty, are enriched in content, and are pitched at the level of the student of superior abilities.

Beginning with the Class of 1963, students will be able to accumulate sufficient credit in honors courses to be entitled to graduation "with honors," "with great honors," or "with highest honors." The minimum requirement for graduation with honors has been set by the faculty at 30 credit hours for honors work in junior division courses and 15 credit hours for honors work in senior division courses. An announcement will be made in next year's General Catalogue regarding senior division honors work.

During 1960-61, the following honors courses were available:

Art H-111	(Substitute for Art 287, 288, 289.)
Chemistry H-125	(Substitute for Chemistry 121.)
Chemistry H-126	(Substitute for Chemistry 122.)
English H-105	(Substitute for English 101 and 102.)
English H-125	(Substitute for English 121.)
English H-126	(Substitute for English 122.)
French H-114 (214)	(Substitute for French 103 and 104.)
History H-115 (215)	(Substitute for History 111.)
History H-116 (216)	(Substitute for History 112.)
Mathematics H-120 (220)	(Substitute for Mathematics 100, 101, and 210.)
Philosophy H-115 (215)	(Substitute for Philosophy 104.)
Political Science H-105	(Substitute for Political Science 101.)
Sociology H-106 (206)	(Substitute for Sociology 105.)
Spanish H-114 (214)	(Substitute for Spanish 103 and 104.)
Zoology H-123	(Substitute for Zoology 101, 102, and 124.)

All the above honors courses carry 5-hours credit. It should be noted that in some cases, the student in the Honors Program is able to satisfy a 9, 10, or 15 hour degree requirement with a 5-hour honors course. He is thereby enabled to move more rapidly into advanced work, or to broaden his education, or both.

Descriptions of the above honors courses will be found in the announcements of the departments offering the courses. It should be emphasized that the above list is not all-inclusive, and that other honors courses were being added during 1960-61. It is anticipated that eventually all basic beginning courses in the College will be available in the Honors Program.

Further information on the Honors Program is contained in a special bulletin which may be obtained from the Office of the Dean of the College of Arts and Sciences.

EXEMPTION OF COURSES

An increasing number of well prepared students are exempting certain elementary courses in English, chemistry, mathematics, modern foreign languages, political science, and zoology by passing examinations in these subjects. Not only does this give a greater number of electives, thereby enabling the student to obtain a richer program, but in a few instances college credit is given.

Exemption of elementary courses by qualified students is encouraged.

BACHELOR OF ARTS AND BACHELOR OF SCIENCE DEGREES

The main purpose of the curricula for these degrees is to aid in developing an appreciation for cultural pursuits and to prepare the student for advanced study in the various liberal arts fields and for matriculation in professional schools such as Law, Medicine, Business Administration, and Journalism.

REQUIREMENTS FOR THE BACHELOR OF ARTS DEGREE

ADVISERS: IMOGENE DEAN AND H. BOYD MCWHORTER.

FRESHMAN AND SOPHOMORE YEARS

Hours	Hours
English 101-102 10	Literature 10
Mathematics 100 and Mathematics 101, 356, or Philosophy 358 10	(See Item 1B below)
(See Item 2A below)	History 111-112 10
Political Science 101..... 5	Laboratory Science 10
Foreign Language through 104 10-20	(See Item 2B below)
(See Item 1D below)	Social Studies.....15-5
Science (non-laboratory) or Social Studies (junior division)10-0	(See Item 4C below)
(See Items 2B and 4C below)	Science (non-laboratory)*.....0-10
Military Science 1 or Air Science 5..... 6	(See Item 2B below)
Physical Education 1-2 (for men) 0	Military Science 2 or Air Science 6..... 6
Physical Education 1-2 (for women) 5	Physical Education 1-2 (for men) 0
	Physical Education 1-2 (for women) 5
Total.....50-51	Total.....50-51

JUNIOR AND SENIOR YEARS

(95 hours of required and elective junior and senior division courses. See Total Requirements for A.B. and B.S. degrees on the following pages.

REQUIREMENTS FOR THE BACHELOR OF SCIENCE DEGREE

Adviser: BARRINGTON L. FLANIGEN

FRESHMAN AND SOPHOMORE YEARS

	Hours		Hours
English 101-102	10	Literature	10
Mathematics 100-101	10	(See Item 1B below)	
Political Science 101.....	5	History 111-112	10
Foreign Language through		Laboratory Science	10
103	10-15	Science (non-laboratory)*	10-15
(See Item 1D below)		(See Item 2B below)	
Science (non-laboratory)*	10-5	Laboratory Science, Mathe-	
Military Science 1 or		matics or Social Studies.....	5-0
Air Science 5.....	6	(See Items 2B and 4C below)	
Physical Education 1-2 (for men)	0	Military Science 2 or	
Physical Education 1-2		Air Science 6.....	6
(for women)	5	Physical Education 1-2 (for men)	0
		Physical Education 1-2	
		(for women)	5
Total.....	50-51	Total.....	50-51

JUNIOR AND SENIOR YEARS

(95 hours of required and elective junior and senior division courses.
See Total Requirements for A.B. and B.S. degrees, as listed below.)

TOTAL REQUIREMENTS FOR A.B. AND B.S. DEGREES

(Unless otherwise specified the requirements are for both the
A.B. and B.S. degrees)

	Hours
1. LANGUAGE-LITERATURE	30-50
A. English 101-102	(10)
An average of C is required in the two courses.	
B. Literature	(10)
Two courses from the following: English 121-122, "Western World Literature"; or French 201-202; or German 201-202; or Italian 201-202; or Spanish 201-202.	
C. Classical Culture.....	(10)
This requirement is for Bachelor of Arts students only and may be satisfied by one 10-hour sequence from the following:	
Classical Culture 301-302.	
Classical Culture 301-358	
Classical Culture 354, 356, or 357 and 302	
Classical Culture 354, 356, or 357 and 358	
If Latin or Greek is elected to meet the foreign language re- quirement (see Item D), the student is exempt from the Classical Culture requirement.	

*A non-laboratory science requirement may be substituted by a laboratory science in the same division.

D. Foreign Language (10-20)

For A.B. Students:

A student continuing a foreign language taken in high school will be placed in the appropriate course on the basis of placement tests and other pertinent information.

A student must complete twenty hours in one language. These twenty hours may be a combination of high school and college courses, but at least ten hours must be in college courses numbered 103 or above. No student may receive credit for any course which is a prerequisite to a course for which he has already received college credit.

For B.S. Students:

A student continuing a foreign language taken in high school will be placed in the appropriate course on the basis of placement tests and other pertinent information. A student must complete fifteen hours in one language. These fifteen hours may be a combination of high school and college courses, but at least ten hours must be in college courses, and at least five of these ten hours must be in courses numbered 103 or above. No student may receive credit for any course which is a prerequisite to a course for which he has already received college credit.

2. SCIENCE-MATHEMATICS 30-50

A. Mathematics and/or Philosophy (10)

For A.B. students: Mathematics 100 and one course from the following: Mathematics 101, 356, or Philosophy 358.

For B.S. students: Mathematics 100-101.

B. Science (20-40)

For A.B. students: (20 hours of which 10 must be with laboratory). A student must follow either option I or option II.

Option I

(a) Human Biology 101-102 or Botany 110-111 (Botany 121-122) (10)

(b) A double laboratory course from Chemistry 121-122 or Physics 120, 127 or 128 or Geology 125-126 (10)

Option II

(a) Physical Science 101 or Physics 120 and either Earth Science 104 or Chemistry 121 (10)

(b) A double course from Botany 121-122 or Zoology 225-226 (10)

For B.S. students: 40 hours of Science or 30 hours of Science plus 10 hours of mathematics, as follows:

(a) Human Biology 101-102 or Zoology 124 or Botany 110-111 (Botany 121-122) (5-10)

(b) Chemistry 121 or Earth Science 104 and one of the following: Physical Science 101, Physics 120, Physics 127 or Physics 128** (10)

**Physical Science 101 or Physics 120 should not be taken if further work in physics is contemplated.

The student will also take 20 hours (two 10 hour sequences) from any two of the three following groups:

- (c) Biological Science Division: Botany 121-122* or
 Zoology 225-226.....(10)
- (d) Physical Science Division: Chemistry 121-122 or 122-223 or
 Geology 125-126 or
 Physics 127-128 (137-138)
 or 128-229 (138-239).....(10)
- (e) Advanced Mathematics(10)

3. FINE ARTS 5
 Fine Arts 300.....(5)

This is a requirement for A.B. students and is an elective for B.S. students.

4. SOCIAL SCIENCE35-40
 A. History 111-112(10)
 B. Political Science 101.....(5)
 C. Social Studies(20-25)

For A.B. students: (25 hours)

Five courses from:

- Anthropology 102
 Economics 105
 Geography 101
 History 351 or 352
 Philosophy 104 or 305
 Psychology 101
 Sociology 105

For B.S. students: (20 hours)

Four of the above courses or three of the above courses plus
 Fine Arts 300.

5. MAJOR (All grades must be C or above)..... 40

The major consists of a minimum of 40 hours. No course can be used to satisfy any part of the major if it has been used to satisfy any of the requirements listed under Items 1-4 above.

These 40 hours must be distributed as follows:

- A. The major subject:

A minimum of 20 hours of senior division courses in one subject. These must be taken after admission to senior division standing and in residence.

- B. The major division:

In addition to the 20 hours listed above, the student must take 20 more hours either in the major subject or in the division of the major. At least 10 of these hours must be in senior division courses taken after admission to senior division standing.

The major professor must approve all of the 40 hours in the major.

*Not open to students with credit in Botany 110-111. Botany 121-122 will substitute for Botany 110-111 in (a).

For the A.B. degree the major may be in any division, but for the B.S. degree the major must be in either the biological or physical science division. By special action of the Dean and the major professor a combined divisional major may be authorized.

6. REQUIRED ELECTIVES 15

None of these can be in any subject which is included in the 40 hours of the major, but they may be taken in subjects that are in the same division as the major subject or subjects.

7. FREE ELECTIVES5-20

These will vary as needed to meet (1) a minimum of 185 academic hours, (2) all residence and senior division requirements, and (3) any scholastic requirements, such as replacing excess D grades or raising the academic average. To meet these requirements the number of electives may exceed 20 hours but not over 15 hours of professional credit may be used.

8. TOTAL ACADEMIC HOURS (Minimum).....185

These 185 hours are exclusive of Military Science 1-2 and Air Science 5-6, and Physical Education 1-2. Not over one-fourth can be in grades below "C" and the average must be "C" or above.

For the A.B. and B.S. degrees with provisions for a professional teachers' certificate and the B.M. degree with a major in Music Education, see pages 129 and 139.

The requirement of 185 hours is for the regular A.B. and B.S. degrees. For any modification of these degrees and for all other degrees, it will be necessary to check the curriculum of the particular degree in order to determine the total hours required.

9. RESIDENCE REQUIREMENTS:

A minimum of 90 quarter hours in the College of Arts and Sciences. See page 69.

10. SENIOR DIVISION REQUIREMENTS for all degrees in the College of Arts and Sciences:

- (a) 60 hours of senior division courses* after reaching senior division standing, and
- (b) 45 hours, after senior division standing, of senior division courses in the College of Arts and Sciences while in residence in the College of Arts and Sciences,** and
- (c) 30 hours in senior division courses must be taken in residence during the three quarters' work immediately preceding graduation.

Students under one of the combined programs should see the curriculum for that degree concerning residence and senior division requirements.

11. SPECIAL REQUIREMENTS FOR ALL CANDIDATES FOR A DEGREE:

A. Examinations on the Constitutions.

See page 70. Students transferring credit for Political Science 101 from institutions outside of the state will be required to pass an examination on the Georgia Constitution.

*A student who has satisfied the language requirement for his degree in one foreign language may count the courses taken during his junior and senior years in any other foreign language regardless of course numbers towards his senior division requirements.

**Students in the combined A.B.-LL.B. program may use credits in Advanced Military Science while registered in the Law School toward their senior division requirements for the A.B. degree.

B. Sophomore Comprehensive Examination.

This examination is required of all sophomores and also of students who transfer in as juniors or seniors.

C. Examination on the History of the United States and Georgia:

All students receiving a degree from the University of Georgia are required to pass an examination on the history of the United States and Georgia (given at the beginning of the freshman year) unless credit is presented in (1) History 100 or (2) History 351-352 or (3) History 459 and one other course in American history.

MAJORS IN FOREIGN AREAS WITHIN THE BACHELOR OF ARTS DEGREE

On the advice of their major professor, students may select majors dealing with specific areas outside the continental United States. This option is designed to provide (1) both a cultural background and more intensive study of foreign areas than is possible within a major taken exclusively in a single department, and (2) an undergraduate preparation for advanced studies in foreign areas or international relations.

The student desiring to concentrate in a foreign area should major in one of the following departments: Economics, Geography, History, Modern Foreign Languages, or Political Science. He should consult with the major professor in one of the above departments to select courses from related departments. A minimum of 20 hours of courses numbered above 200 must be taken in the major, and elective courses should be spent in courses in related departments. All other requirements for the A.B. degree, as outlined on pp. 124-128 must be met. It is strongly recommended that the student complete 10 hours in one modern foreign language in courses numbered above 200 which emphasize speaking and writing.

MAJOR IN ART OR MUSIC WITHIN THE BACHELOR OF ARTS DEGREE

	Hours
BASIC CURRICULUM: Same as for A.B. Degree, except omit items 3, 5, and 6.....	110 to 120
FOR MAJOR IN ART AND MAJOR IN ART HISTORY:	
Freshmen and Sophomore Years—Art 120, 130, 140, 287, 288, 289.....	24
Junior and Senior Years—Art History (Senior Division).....	10
Art (Senior division) as approved by major professor.....	30
Music: Recommended 343, 350 or 358.....	3-5
Fulfillment of items 7-11 inclusive, pages 127-128.	
FOR MAJOR IN MUSIC:	
Freshman Year—Music 110, 111, 112.....	9
Sophomore Year—Music 134, 135, 136, 122, 123, 124.....	15
Junior and Senior Years—Music 350, 353, 470, 471, 442, 462, 456 or 457, Art 317 or approved art institute.....	32
Applied Music—Music 185, 186, 287, 288.....	12
Fulfillment of items 7-11 inclusive, pages 127-128.	

CURRICULA FOR THE BACHELOR OF ARTS AND BACHELOR OF SCIENCE DEGREES WITH PROVISIONS FOR A PROFESSIONAL CERTIFICATE FOR TEACHING IN SECONDARY SCHOOLS

A.B. ADVISERS: IMOGENE DEAN AND H. BOYD McWHORTER

B.S. Adviser: BARRINGTON L. FLANIGEN

The requirements for either degree total 190-200 hours, exclusive of Basic Military Science and Physical Education 1-2, with 155-165 hours to be taken in the College of Arts and Sciences and a minimum of 35 hours to be taken in the College of Education. The program of the individual student will be worked out jointly by the Dean of the College of Arts and Sciences and the Dean of the College of Education. Students are advised to plan the program as early as possible, not later than during the first part of the sophomore year.

REQUIREMENTS

These are the same as for the A.B. and B.S. degrees (see pages 124-128) except that in:

(1) Item 4C.

A.B. degree students take Psychology 101 and three other courses 20 hours

B.S. degree students take Psychology 101 and two other courses 15 hours

(2) Items 6 and 7.

For both the A.B. and B.S. degree these items are replaced by 5 or more elective hours in Arts and Sciences and Education 303, 304, 335, 336, 346, 347 and 348..... 45 hours

(3) Item 8.

The total number of hours (minimum).....185-200

CURRICULUM FOR THE BACHELOR OF ARTS DEGREE WITH A PRE-PROFESSIONAL MAJOR IN SOCIAL WORK

Adviser: IMOGENE DEAN

The pre-professional concentration in social work is planned to give preparation to students who expect to enter the practice of social work and to lay a sound liberal arts base for professional education in social work.

The requirements for this degree are the same as those listed for an A.B. degree (pages 124-128, inclusive) except that the major is increased from 40 to 58 hours and the number of free elective courses is reduced. A maximum of 15 hours of professional credit is allowed. The requirements are:

	Hours
English 101-102	10
Human Biology 101-102.....	10
Foreign language (see item 1D, page 125).....	10-20
Political Science 101.....	5

	Hours
Literature (See item 1B, page 124).....	10
Mathematics 100 and either Mathematics 101 or 356 or Philosophy 358	10
History 111-112	10
Laboratory science: A double laboratory course from Chemistry 121-122, or Physics 120, 127 or 128 or Geology 125-126.....	10
Social Studies: Psychology 101, Sociology 105, Economics 105 and two other courses. (See item 4C, page 126).....	25
Fine Arts 300.....	5
Classical Culture 301-302 (See item 1C, page 124).....	10
Major: (Not to be taken until credit is obtained in Sociology 105 Economics 105, Psychology 101, Political Science 101 and Human Biology 101-102)	
Group 1	43
Psychology 258 or 459.....	5
Psychology 373	3
Political Science 406.....	5
Sociology 315, 435, and 470 or 431.....	15
Home Economics 293 (Sociology 293) and Home Economics 493 or 495.....	10
Education 452 or Home Economics 490 (Psychology 490).....	5
Group 2	15
Select three courses from any of the following:	
Psychology 423, 459; Sociology 427, 551, 552; Political Science 468; Education 455, 521, 523, 512; Home Economics 496 (Education 496)	
Electives, as needed, minimum.....	12-2
Total.....	185

BACHELOR OF SCIENCE IN CHEMISTRY

Adviser: A. W. SCOTT

The curriculum for this degree offers training in the field of chemistry and its allied sciences for students who desire to enter commercial or government laboratories, to enter the teaching profession, to become associated with chemical industries in a non-technical position, or to pursue graduate work in chemistry in order to enter some field of research or college teaching.

REQUIRED COURSES IN FRESHMAN AND SOPHOMORE YEARS

	Hours		Hours
English 101-102 and 121.....	15	Physics 127, 128, 229.....	15
Chemistry 121-122-223	15	Mathematics 254, 255.....	10
Mathematics 100-101, 210.....	15	English 122	5
Military Science 1 or		Chemistry 340a-b, 380.....	15
Air Science 5.....	6	Military Science 2 or	
Physical Education 1 (for men)	0	Air Science 6.....	6
or		Physical Education 2 (for men)	0
Physical Education 1		or	
(for women)	5	Physical Education 2	
		(for women)	5
	—		—
Total.....	50-51	Total.....	50-51

An average of B or better is required, both in chemistry and in all freshman and sophomore work, in order to continue in the junior year for this degree, and an average of B must be maintained in both thereafter.

No transfer student will be accepted as a candidate for this degree later than the beginning of his junior year. A student who wishes to take this degree should enter the university no later than the beginning of his sophomore year.

REQUIREMENTS IN JUNIOR AND SENIOR YEARS

- (1) POLITICAL SCIENCE 101: Five hours
- (2) *GERMAN: Through 103.
- (3) CHEMISTRY: 342, 441, 480, or 481, 490a-b-c; two of 420, 421, 424, 522.
- (4) NON-SCIENCE ELECTIVES: Ten hours
- (5) COMPREHENSIVE EXAMINATION: The passing of a comprehensive examination (embracing the principal divisions of chemistry), this examination to be taken toward the end of the senior year.
- (6) ELECTIVES: A sufficient number of hours to make a total of not less than 185, exclusive of the required courses in Military Science 1-2, Air Science 5-6, or Physical Education 1-2.
- (7) Items 9, 10 and 11, pages 127-128.

BACHELOR OF SCIENCE IN PHYSICS

Adviser: L. A. RAYBURN

The curriculum for this degree is designed so as to give the best preparation possible to those students who desire to pursue a career in physics. It provides the necessary foundation for those students who wish to do graduate work toward advanced degrees so that they may enter some field of research or college teaching, for those who wish to seek employment in commercial and governmental laboratories, and for those interested in entering the teaching profession at the high school level.

*Students who may wish to take graduate work in chemistry are advised to take some Russian or French since a reading knowledge of two foreign languages is required for a doctorate.

FRESHMAN AND SOPHOMORE YEARS

	Hours		Hours
English 101-102	10	Physics 128, 229	10
Mathematics 100, 101, 210.....	15	Mathematics 254, 255.....	10
Foreign language (1).....	10-15	Chemistry 121	5
Physics 127	5	Biological Science	10
Elective	5- 0	Political Science 101.....	5
Military Science 1 or		Social Science (2).....	5
Air Science 5	6	Military Science 2 or	
Physical Education 1 (for men) 0		Air Science 6	6
or		Physical Education 2 (for men) 0	
Physical Education 1		or	
(for women)	5	Physical Education 2	
		(for women)	5
Total	50-51	Total	50-51

REQUIREMENTS IN JUNIOR AND SENIOR YEARS

Physics 332, 333, 334, 404 and three other courses (3).....	35
Mathematics 401 (3).....	5
Literature (See Item 1B, page 124).....	10
Chemistry 122 and one other Chemistry course.....	10
Social Sciences (2).....	10
Electives (variable but 25 is the minimum).....	25
Total	185

- (1) See Item 1D, page 125, for the B.S. degree.
- (2) Social Studies: Anthropology 102, Economics 105, Geography 101; History 111, 112, 351, 352; Philosophy 104, 305; Psychology 101 and Sociology 105. Fine Arts 300 may be substituted for any social science course.
- (3) No grade below C in any course in Physics or Mathematics and the grade average must be B or better in these courses. Items 7-11 inclusive, pages 127-128.

DIVISION OF FINE ARTS

The Division of Fine Arts is administered by the College of Arts and Sciences. It includes art, music, and speech and drama. The function of this Division is to give training in appreciation, to help students form standards of taste, to promote culture in the entire community, and to train specialized performing artists and teachers. To accomplish these objectives this Division collaborates with other schools, divisions, and departments, especially those of languages, education, and home economics. In the College of Arts and Sciences curricula of four years are offered, with a major in either art, music, or speech and drama.

BACHELOR OF FINE ARTS DEGREE

Advisor: EULALA AMOS

FRESHMAN AND SOPHOMORE YEARS

	Hours		Hours
English 101-102	10	Literature	10
Political Science 101.....	5	(See item 1B, page 124)	
Foreign Language (2).....	10	History 111-112	10
Mathematics 100	5	Science (1)	10
Fine Arts (3).....	15	Fine Arts (3).....	15 to 21
Military Science 1 or		Military Science 2 or	
Air Science 5.....	6	Air Science 6.....	6
Physical Education 1 (for men)	0	Physical Education 2 (for men)	0
or		or	
Physical Education 1		Physical Education 2	
(for women)	5	(for women)	5
Total	50-51	*Total	50 to 57

- (1) See Item 2B, page 125. Non-laboratory science sequence in Option I**.
- (2) See Item 1D, page 125, for A.B. degree. BFA majors in Voice are permitted to substitute one language through 103 and one language through 102 for the language requirement.
- (3) Major in Art

Only students with averages of C+ or better may be admitted to junior class standing for the purpose of working towards the B.F.A. degree with a major in Art.

Concentration in Art Education, Art History, Art-Home Economics, Advertising Design and Commercial Art, Ceramics, Crafts, Drawing and Painting, or Interior Design:

Freshman—Art 120, 130, 140

Sophomore—Art 216, 217, 218, 287, 288, 289

For junior and senior years, see page 135.

Major in Music

Concentration in Applied Music, Music Literature, Theory-Composition

Freshman—Music 110, 111, 112, and 171

Sophomore—Music 134, 135, 136, 122, 123, 124, and 172

Major in Speech and Drama

Concentration in Speech-Drama

Freshman— Drama 101

Speech 108

Drama 102

Sophomore—Speech 209

Speech 250

Drama 222

*See requirements for taking extra hours, page 68.

**A laboratory science will substitute for a non-laboratory science in the same division.

Concentration in Speech-Drama Education

- Freshman— Drama 101
 Speech 108
 Drama 102
 Psychology 101
- Sophomore—Speech 250
 Speech 209
 Drama 222
 Social Studies 5 hours

Concentration in Speech Correction

- Freshman— Speech 108
 Speech 250
 Psychology 101
- Sophomore—Speech 209
 Science 10 hours (See item 2B, page 125. Non-laboratory science in (a) Option II.

Concentration in Radio-Television

- Freshman— Drama 101
 Drama 102
 Speech 108
- Sophomore—Speech 209
 Speech 250
 Drama 222

For Junior and Senior years, see page 142.

DEPARTMENT OF ART

The Department of Art occupies the new Visual Arts Building, which contains an art gallery, spacious studios, classrooms, lecture rooms and laboratories, many of which are air conditioned. This modern building, which has been carefully planned to meet the needs of the various areas within the department, provides an admirable physical plant. The old Library Building houses the Georgia Museum of Art in which the Eva Underhill Holbrook Memorial paintings form the nucleus of a rapidly expanding permanent collection. The General Library contains an extensive collection of books and prints in the field of art.

The objective of the Department of Art is to provide training in the fundamental principles of the creative visual arts. Emphasis is given to active experience with tools and materials. A well-balanced program with its courses in drawing and painting, design, art history, art structure, commercial art, crafts, ceramics, sculpture, art education, interior design, photographic design, and graphics is so integrated that each course functions to advantage in its relations to each of the other courses. From this integration the student is enabled to derive a knowledge of the basic principles underlying all art, and is thereby better equipped to interpret, appreciate, and create works of art.

In the freshman and sophomore years, 33 hours of art are required in addition to the general academic requirements. On entering the junior year, the student selects his major field of concentration from the eight

fields offered: Art Education, Art History, Art-Home Economics, Advertising Design and Commercial Art, Ceramics, Crafts, Interior Design, and Painting and Drawing. Upon completion of this program and fulfillment of all requirements, the Bachelor of Fine Arts degree is conferred. In case of students who have majored in Art Education, upon recommendation of the Dean of the College of Education, the State Department of Education will grant a professional certificate to teach Art.

The Bachelor of Arts degree with a major in art is also offered. (See A.B. degree with a major in art.) In the College of Education a Bachelor of Science in Education with a major in art is offered. (See College of Education.)

Through the cooperation of the School of Home Economics the Bachelor of Fine Arts degree with a major in art and a specialization in home economics is offered for these interested in combining art and homemaking.

TRIPS

Each year art majors, accompanied by members of the Art Staff, make trips to leading museums and exhibitions. Sketching and painting trips are made occasionally during the year to localities within driving distance of Athens.

INTERNSHIPS

Arrangements have been made with leading commercial establishments in the South in order that art majors may serve internships during the summer between their junior and senior years. In this manner practical experience is related to the college curriculum.

BACHELOR OF FINE ARTS—MAJOR IN ART

REQUIRED COURSES IN JUNIOR AND SENIOR YEARS

Courses to be chosen in consultation with major professor. No course with a grade of D or D+ can be used to satisfy any part of the minimum requirement (40 quarter hours) in a student's major.

For all students: A minimum of 185 academic hours and the fulfillment of items 7-11 inclusive, page 127-128.

I. ART EDUCATION

	Hours
Science (1)	10
Ceramics 160	5
Art 310	5
Art History	10
Art 313, 321, 331, 341, 370.....	25
Education 201	3
Education 304, 335.9, 336.9.....	15
Education 346.9, 347.9, 348.9.....	15
Music (Recommended 358).....	5
Electives	5
	98

(1) Non-laboratory science. Item 2B, Option II(a), page 125.

2. ADVERTISING DESIGN AND COMMERCIAL ART

	Hours
Science (1)	10
Art 341, Watercolor	5
Art 331	5
Art History (Senior Division)	10
Art 320	5
Art 306, 308, 309, 310	20
Art 301, Technical Problems	5
Landscape Architecture 255	5
Journalism (Recommended 557)	5
Music (Recommended 350 or 358)	5
Electives (Recommended Art 321, 323; or Art 387 and Drama 335)	17
	92

3. CRAFTS

	Hours
Science (1)	10
Art 310, Lettering	5
Crafts (Senior Division)	15
Art 320, Photographic Design	5
Ceramics	5
Art History (Senior Division)	10
Landscape Architecture 255	5
One from Art 301, 550, 552	5
Music (Recommended 358)	5
Electives (to be approved by major professor. Recommended Art 306, 308, 321; Ceramics; Sculpture; Drama 335; Religion; Anthropology 102, 211, 301; Psychology 101; Physics 127, 128; Botany 323)	27
	92

4. CERAMICS

	Hours
Science (1)	10
Art History (Senior Division)	10
Ceramics	30
Drawing and Painting	15
Crafts	5
Electives (Recommended: Interior Design, Anthropology 102 and 301; Music 358; Sculpture; Landscape Architecture)	22
	92

5. DRAWING AND PAINTING

	Hours
Science (1)	10
Drawing and/or Sculpture	10
Painting and Drawing	25
Art History (Senior Division)	10
Music (Recommended 358)	5
Electives (Recommended: Art 371; Crafts; Drama 335; Landscape Architecture 255; Psychology 101 and Sociology 105)	32
	92

(1) Non-laboratory science. Item 2B, Option II(a), page 125.

6. ART (HOME ECONOMICS)

Science (1)	10
Art History (Senior Division).....	10
Three from Home Economics 105, 120, 175, 293.....	15
Home Economics (Senior Division).....	10-20
Electives (to be approved by major professor).....	47-37

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92

7. INTERIOR DESIGN

Science (1)	10
Art 321 or 341.....	5
Art History (Senior Division).....	10
Landscape Architecture 255.....	5
Interior Design 386, 387, 389, 390, 391.....	25
Crafts or Ceramics.....	5
Art 320	5
Electives (To be approved by major professor. Recommended Art 321 or 341; Crafts; Ceramics; Landscape Architecture; Home Economics; Business Administration; Philosophy; Psychology; Sociology)	27

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92

8. ART HISTORY

	Hours
Science (1).....	10
Art History (Senior Division).....	25
Music (Senior Division: Recommended 358).....	5
Electives outside the Art Department (to be approved by major professor).....	15*
Electives in Art other than Art History (a minimum of 15 hours must be in one area).....	27-37*

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82-92

DEPARTMENT OF MUSIC

Three degrees are offered with a major in music:

- Bachelor of Arts
- Bachelor of Fine Arts
- Bachelor of Music

See page 128 for the Bachelor of Arts curriculum with a major in music.

A student majoring in music for a B.F.A. or a B.M. degree may concentrate in:

- a) Applied Music (requiring a public recital, instrumental or vocal);
- b) Theory-Composition (requiring an original major work publicly performed);
- c) Music Literature (requiring a comprehensive examination);

The major in music education (specializing in instrumental or vocal work) if offered only toward the B.M. degree. See page 139.

The junior division program for a major in music includes the required academic courses in addition to courses in elementary music theory, harmony, history, and applied music. These courses are designed to give

*Of these elective hours at least 30 must be in the Senior Division.

the student a practical knowledge of the theory of music, ear training, harmony and sight singing. The senior division courses are designed to give the student a broader and more cultural background in music. Applied music courses are offered each year to music majors and also to students of other departments if they can be accommodated.

Much stress is laid on public performance through weekly music appreciation programs and student recitals. The University Chorus presents a choral program each quarter and the Symphony Orchestra performs frequently. These organizations are open to any qualified person. Other performing groups include the University Band, The Dixie Red Coat Band, the Men's Glee Club, and the Women's Glee Club. One opera or operetta is presented during the winter quarter. An outstanding concert series of internationally known artists and a Chamber Music Festival in the spring add to the cultural atmosphere of the campus.

BACHELOR OF FINE ARTS—MAJOR IN MUSIC

REQUIREMENTS IN JUNIOR AND SENIOR YEARS

- | (1) Major Concentrations: | Hours |
|---|-------|
| (a) Applied Music—public recital (instrumental or vocal). | |
| Music Literature courses 350, 353, 442, 456, 457, 462..... | 22 |
| Music Theoretical Courses 374, 470, 471..... | 13 |
| Conducting 361..... | 2 |
| Applied Music 273, 274..... | 12 |
| (b) Theory-Composition—large original composition in concert, instead of public recital, Music 475, 476, 477 and 478 required; Music 333 recommended; otherwise same as Applied Music. | |
| (c) Music Literature—comprehensive examination and performance before music faculty, addition of 10 hours in Music Literature; otherwise same as Applied Music. | |
| (2) Science: 10 hours | |
| (See Item 2B, page 125. Non-laboratory science in Option II (a).) | |
| (3) Art: 5 hours | |
| (4) English: One approved senior division course, 5 hours | |
| (5) Electives: A sufficient number of hours to bring the total to 185, exclusive of the required courses in Military Science 1-2 or Air Science 5-6 or Physical Education 1-2. Courses in fine arts, English, history, and foreign languages are especially recommended. 0 to 20 hours. | |
| (6) All music majors must be able to read simple hymns or music of similar difficulty on the piano. All music majors must participate in ensemble groups. | |
| (7) For all students: The fulfillment of Items 9-11 inclusive, pages 127-128. | |

BACHELOR OF MUSIC

Concentration in Applied Music, Theory-Composition and Music Literature.

Adviser: JOHN ANDERSON

FRESHMAN AND SOPHOMORE YEARS

	Hours		Hours
English 101-102.....	10	Literature (3).....	10
Foreign Language 103-104 (1).....	10	Science (4).....	5
Political Science 101.....	5	Music 134-135-136.....	9
Music 110-111-112.....	9	Music 122-123-124.....	6
Music 143.....	3	Music 192 (2).....	12
Music 191 (2).....	12	Music Organization.....	3
Military Science 1 or		Military Science 2 or	
Air Science 5.....	6	Air Science 6.....	6
Physical Education 1		Physical Education 2	
(for men).....	0	(for men).....	0
or		or	
Physical Education 1		Physical Education 2	
(for women).....	5	(for women).....	5
Total.....	54-55	Total.....	50-51

- (1) See Item 1D, page 125. Majors in Voice are permitted to substitute one language (Italian recommended) through 103 and one language (French or German recommended) through 102 for the language requirement.
- (2) Voice majors will elect Music 171-172 (voice) and Music 185-186 (piano) for Music 191-192.
- (3) See Item 1B, page 124.
- (4) 10 hours (5 can be taken in junior or senior year) from the following: Math. 100-101; Human Biology 101-102; Botany 110-111; Botany 121-122; Physical Science 101 and Geography 104; Chemistry 121-122; Physics 120-127; Geology 125-126; Zoology 225-226.

JUNIOR AND SENIOR YEARS*

	Hours
Applied Music 293-294 (including senior recital).....	24
Music theory 374, 470, 471.....	13
Music conducting 361.....	2
Music literature 350-353-442-455-456-462.....	24
Music organization.....	3
History 111-112.....	10
Science (4).....	5
Art.....	5
Electives.....	0-11
Total (academic hours).....	185

For Voice Majors: Music literature 455-456 will not be required, but these courses and also Music 365 will be recommended.

For Theory-Composition Majors: A large original composition in concert, instead of a public recital, will be required; Music 475, 476, 477, and 478 will be required and Music 333 is recommended; (two applied music subjects may be substituted for one major applied music subject).

*See top of page 141.

For Music Literature Majors: The passing of a comprehensive examination in the history and literature of music; appearance in a public recital before graduation; ten additional hours in music literature are required. (Two applied music subjects may be substituted for one major applied music subject).

For all students: A minimum of 185 academic hours and the fulfillment of Items 9, 10 and 11, pages 127-128.

BACHELOR OF MUSIC—MAJOR IN MUSIC EDUCATION

Adviser: M. J. NEWMAN

FRESHMAN AND SOPHOMORE YEARS

Hours	Hours		
English 101-102.....	10	Science (1).....	5
Political Science 101.....	5	Foreign language 103-104 (2).....	10
Music 110-111-112.....	9	Music 134-135-136.....	9
Music 143.....	3	Music 122-123-124.....	6
Music instrumental methods.....	6	Music instrumental methods (Instrumental concentration only).....	6
Music organization.....	3	Music organization.....	3
Applied Music (major) 171.....	6	Applied Music (major) 172.....	6
Applied Music (minor) 185.....	3	Applied Music (minor) 186.....	3
Military Science 1 or Air Science 5.....	5	Military Science 2 or Air Science 6.....	6
Physical Education 1 (for men).....	0	Physical Education 2 (for men).....	0
or Physical Education 1 (for women).....	5	or Physical Education 2 (for women).....	5
Total.....	50-51	Total.....	53-54

(1) Music education majors allowed to substitute 10 hours of science or mathematics (See Science requirements under Bachelor of Music degree, page 135) for foreign language requirement.

(2) See Item 1D, page 125.

JUNIOR AND SENIOR YEARS*

	Hours
Music theory 374-375; 470-471.....	16
Music conducting and laboratory, 263-264-265; 361-362-363.....	9
Music literature (minimum).....	8
Music methods 312-313.....	10
Applied Music (major) 273-274.....	10
Applied Music (minor) 287-289.....	6
Choral Materials 365 (vocal concentrations only).....	5
History 111-112.....	10
Art.....	5
Literature (3).....	10
Education 304, 346.10, 347.10, 348.10.....	20
Electives (unless needed—see below).....	0
Total (academic hours).....	196-197

(3) See Item 1B, page 124.

*See top of page 141.

*All music majors must:

1. Pass a comprehensive examination covering ear training, theory, music literature, form and music methods during the senior year.
2. Pass the Keyboard Proficiency Test before graduation.
3. Participate in the ensemble group or groups appropriate to the major performance medium.
4. Present a satisfactory public solo performance before graduation.
5. Meet all senior division and residence requirements as outlined on page 127 and a minimum of 196-197 academic hours.

DEPARTMENT OF SPEECH AND DRAMA

The Department of Speech and Drama provides specialized training in general speech, drama and theatre, radio and television, and speech correction. However, many of the courses are open to students who wish to enrich their knowledge and heighten their appreciation of speech and the arts of the theatre. The purpose of the course is threefold: (1) to give an opportunity for talented students to prepare themselves for professional work in the fields of speech, drama, and theatre, speech correction, and children's theatre; (2) to train leaders for the educational field—teachers, directors, and technicians for schools, colleges, and civic theatres; (3) to make available for students in the University certain courses which will aid them in developing an intelligent interest in the fields of speech and drama.

THE UNIVERSITY THEATRE. In addition to the various courses, a series of productions is presented each season by the University Theatre, an organization designed for all students who are interested in any phase of dramatic production. The productions are planned in a way to give students, as nearly as possible, the actual experience of producing plays as they are produced in the professional theatre. They are cast and rehearsed by staff directors and the productions are designed and built by students working under the supervision of the instructors in the various courses. No additional fee is charged for membership in this group.

RADIO AND TELEVISION. The department offers a major in radio-television with emphasis on practical training and laboratory experience under faculty supervision. The core curriculum is a combination of liberal arts courses supplemented with basic courses in speech and drama.

THALIAN-BLACKFRIARS, ZETA PHI ETA, AND PI KAPPA DELTA. Three honorary societies offer recognition to outstanding students in drama, radio-television, general speech, and speech correction by election to membership in Thalian-Blackfriars, the University of Georgia theatre honorary; Zeta Phi Eta, national speech arts fraternity for women; and in Pi Kappa Delta, National Honorary Forensics Society.

THE SPEECH AND HEARING CLINIC. The general diagnostic services of the Speech and Hearing Clinic are available to individuals who have speech or hearing problems. The functions of the clinic are part of the training program in Speech Correction. Individuals interested in receiving help should contact the Speech and Hearing Clinic for individual and group therapy.

INTERCOLLEGIATE DEBATE. The Department of Speech and Drama assists the University of Georgia in sponsoring intercollegiate forensics activities. All interested students are invited to participate.

BACHELOR OF FINE ARTS—MAJOR IN SPEECH AND DRAMA

REQUIRED COURSES IN JUNIOR AND SENIOR YEARS

1. SPEECH AND DRAMA

JUNIOR	Hours	SENIOR	Hours
Science (1)	10	Speech 530	5
Speech 386 or 387	5	Drama 560	5
Speech 350	5	Drama 561	5
Drama 535	5	Drama 544	5
Drama 536	5	Speech 591	5
Drama 429	5	Electives	25
Electives	10		
	—		
Total.....	45	Total.....	50

Recommended Electives for Professional Teaching Certification*: Speech 310, 386, 592, 593, and 412; Drama 103, 334, 400, 420, 421, 511, 531, 545, 546, 562, 582, 583, 585; Education 304, 335.5, 336.5; English 304, 310, 420, 422, 440, 441.

2. SPEECH DRAMA EDUCATION

JUNIOR	Hours	SENIOR	Hours
Science (1)	10	Education 335.5	5
Education 303	5	Education 336.5	5
Education 304	5	Education 346.5	5
English 304, 305, 440, or 441.....	5	Education 347.5	5
Drama 334	5	Education 348.5	5
Speech 350 (or 310)	5	English 310	5
Speech 386 (or 387)	5	English 420	5
Speech 591	5	English 422	5
	—	Drama 560	5
Total.....	45	Total.....	45

*This curriculum (190 hours) gives the student Professional Teaching Certification.**

*Courses must be approved by major professor, Dean of Arts and Sciences and Dean of the College of Education.

(1) See Item 2B, page 125. Non-laboratory science in Option II(a).

3. SPEECH CORRECTION

JUNIOR		SENIOR	
	Hours		Hours
Psychology 415	5	Psychology 423 or Sociology 427	5
Psychology 490	5	Education 346.16	5
Education 303	5	Education 347.16	5
Education 304	5	Education 348.16	5
Education 335.4	5	Speech 474	5
Education 336.4	5	Speech 476	5
Speech 310	5	Speech 591 or 593	5
Speech 412	5	Electives	15
Speech 470	5		
Speech 471	5		
Total.....	50	Total	50

*This curriculum (190 hours) leads to Professional Teacher Certification and with completion of required Speech Clinic clock hours meets Basic Certification of American Speech and Hearing Association.**

4. RADIO-TELEVISION

JUNIOR		SENIOR	
	Hours		Hours
Science (1)	10	Drama 560	5
Drama 429	5	Drama 561	5
Drama 544	5	Drama 582	5
Drama 545	5	Drama 583	5
Speech 386 or 387.....	5	Drama 585	5
Speech 350	5	Speech 530	5
Speech 535	5	Speech 591	5
Speech 536	5	Electives (Senior Division)	10
Total.....	45	Total.....	45

For all students: a minimum of 185 academic hours and the fulfillment of Items 7-11 inclusive, pages 127-128.

*Courses must be approved by major professor, Dean of Arts and Sciences and Dean of College of Education.

CURRICULUM IN ARTS AND LAW

Combined A.B.-LL.B. Program
(An Eighteen-Quarter Combined Curriculum)

Adviser: ALBERT JONES

FRESHMAN AND SOPHOMORE YEARS

	Hours		Hours
English 101-102	10	Literature	10
Mathematics 100	5	(See Item 1B above)	
Human Biology 101-102, or Botany 110-111, or Physical Science 101 (Physics 120) and either Chemistry 121 or Earth Science 104	10	History 111-112	10
Foreign Language 103-104	10	Laboratory Science	10
(See Item 1D above)		(See Item 2B above)	
Political Science 101	5	Social Studies	10
Social Studies	5	(See Item 4C above)	
(See Item 4C above)		Electives	5
Military Science 1 or Air Science 5	6	Military Science 2 or Air Science 6	6
Physical Education 1 (for men)	0	Physical Education 2 (for men)	0
Physical Education 1 (for women)	5	Physical Education 2 (for women)	5
Total.....	50-51	Total.....	50-51

JUNIOR YEAR*

	Hours
History 351 or 352	5
Philosophy 358	5
Classical Culture 301-302	10
(See Item 1C above)	
Fine Arts 300	5
Electives	30
(Of which four courses must be numbered 200 or above in Arts and Sciences)	
Total.....	55

Three quarters of residence work, including 45 hours in courses numbered 200 or above, devoted exclusively to courses in the College of Arts and Sciences will be required after admission to senior division standing and Item 11, pages 127-128.

For language requirement see Item 1D in list of total requirements.

SENIOR

Satisfactory completion of the first year of work in the School of Law and a total of 185 academic quarter hours.

*See page 68 for regulations in regard to taking extra hours.

CURRICULUM IN SCIENCE AND MEDICINE

(Combined B.S.-M.D. Program)
Adviser: JOHN W. NUTTYCOMBE

PRE-MEDICAL PROGRAM

Most students will find it necessary to have a degree before they gain admittance to either the Medical College of Georgia or to any other medical school and are therefore advised to follow the regular four year program as outlined on pages 124-128 which leads to the A.B. or B.S. degree. However, students of outstanding ability who plan either to enter the Medical College of Georgia or to seek, without a degree, admittance to some other medical school may take the Combined B.S.-M.D. program outlined below:

FRESHMAN AND SOPHOMORE YEARS

	Hours		Hours
English 101-102	10	Literature	10
Mathematics 100-101	10	(See Item 1B, page 124)	
French 103 or German 103	5	Economics 105 or Sociology 105	5
Political Science 101	5	Zoology 225-226	10
Chemistry 121-122	10	Physics 127 and 128.....	10
Zoology 124	5	Chemistry 223	5
Military Science 1 or		Psychology 101	5
Air Science 5	6	Military Science 2 or	
Physical Education 1 (for men) 0	0	Air Science 6	6
or		Physical Education 2 (for men) 0	0
Physical Education 1		or	
(for women)	5	Physical Education 2	
		(for women)	5
Total.....	50-51	Total.....	50-51

*JUNIOR YEAR

	Hours
Chemistry 340a-b, 380	15
Physics 229	5
History 111-112	10
Zoology 355	5
Electives*** (courses numbered 200 or above in Arts and Sciences).....	15
Total	50

(A student will find it difficult to meet the minimum requirements of 140 academic hours* unless he is prepared take either French 103 or German 103 upon entrance to the University)**

Three quarters of residence work, including 45 hours, 30 of which must be in courses numbered 200 or above, devoted exclusively to courses in the College of Arts and Sciences, will be required after admission to senior division standing and Item 11, pages 127-128.

SENIOR YEAR

The satisfactory completion of the first year's work at the Medical College of Georgia at Augusta and a total of 185 academic quarter hours.

*See residence rule, page 69.

**See Item 1D, page 125 for language requirements under regular B.S. degree.

***Electives as needed to meet senior division requirements. Ten hours is minimum.

CURRICULUM IN SCIENCE AND VETERINARY MEDICINE

(Combined B.S.-D.V.M. Program)

Adviser: JOHN W. NUTTYCOMBE

This program is designed for those students who wish to obtain both the B.S. and D.V.M. degrees. Under this program a student may after the successful completion of his first year in the University of Georgia School of Veterinary Medicine receive the B.S. degree. The curriculum, for the first two years, is the same as that in the B.S.-M.D. program outlined above with the exception that Dairy 103, Animal Husbandry 101 and Poultry Husbandry 160 must also be taken; and Botany 121-122 replaces Zoology 124.

JUNIOR YEAR

	Hours
Chemistry 340a-b, 380.....	15
Physics 229	5
History 111-112	10
Plant Pathology 358	5
Animal Husbandry 358	5
Electives*** (courses numbered 200 or above in Arts and Sciences).....	10-20
Total	50-60

Three quarters of residence work, including at least 45 hours, 30 of which must be in courses numbered 200 or above in the College of Arts and Sciences, will be required after admission to senior division standing.

SENIOR YEAR

Satisfactory completion of the first year's work at the School of Veterinary Medicine, University of Georgia, and a total of 185 academic hours. See Item 11, pages 127-128.

FIVE-YEAR PROGRAM FOR COMBINED B.S. AND B.S. ENGINEERING DEGREES

The University of Georgia cooperates with the Georgia Institute of Technology in giving a five-year program leading to a B.S. degree from the University of Georgia and the B.S. degree in Engineering from the Georgia Institute of Technology. All students interested in this program should see the Dean of the College of Arts and Sciences.

B.S. DEGREE WITH A MAJOR IN MEDICAL TECHNOLOGY

Adviser: JOHN W. NUTTYCOMBE

The College of Arts and Sciences cooperates with the Medical College of Georgia in giving a B.S. degree with a major in Medical Technology upon completion of 155 hours of work at the University and 30 quarter hours at the Medical College of Georgia. The work at the University of Georgia consists of the following courses:

***Electives as needed to meet senior division requirements.

	Hours
English 101-102, 121-122	20
Political Science 101	5
History 111-112	10
Mathematics 100-101	10
Foreign Languages	10-15
(15 hrs. or 10 hrs. plus elective. See Item 1D, page 125)	
Social Science	20
(4 courses. See Item 4C, page 126)	
Physics (two courses from 127, 128, 229)	10
Chemistry 121, 122, 223, 380, 340 a-b	30
Human Biology 101-102 or Zoology 124.....	5-10
Zoology 225-226	10
One course from the following:	5
(Bacteriology 410, Entomology 376, Zoology 357, 372, 390)	
Bacteriology 350, 409	10
Elective*	5-0
Total.....	155

Three quarters of residence work, including 45 hours in courses numbered 200 or above, devoted exclusively to courses in the College of Arts and Sciences will be required after admission to senior division standing.

Before acceptance by the Medical College of Georgia the student must have completed all of his work at the University with an academic average that is acceptable by the Medical College of Georgia, and he must also have met the requirements of Item 11, pages 127-128.

Clinical work will be done in the Eugene Talmadge Memorial Hospital. The work at the Medical College of Georgia consists of the following courses given over a period of twelve months:

Medical Microbiology, Biochemistry, Clinical pathology, Hematology, and Immunology.

The B. S. degree with a major in either the Biological or Physical Sciences would, also, equip a student to go into Medical Technology training. In other words, the student does not have to take the combined degree but may take the straight B.S. degree before beginning his technician's training.

PRE-NURSING PROGRAM**

The University of Georgia cooperates with the Medical College of Georgia in giving a 12 quarter program in nursing. The pre-nursing program consists of 3 quarters of work in Athens and the remaining 9 quarters in Augusta at the Medical College of Georgia. The 12 quarter program is planned over a 4 year academic period of time with summers free for employment if desired. Upon successful completion of the course, the degree of Bachelor of Science in Nursing is given by the Medical College of Georgia.

Information concerning admission to the School of Nursing at the Medical College of Georgia can be obtained from the Dean, School of Nursing, Medical College of Georgia, Augusta, Georgia.

The three quarters of work at the University of Georgia consists of the following courses:

*Electives as needed to give a minimum of 155 academic hours.

**This program does not lead to a degree from the College of Arts and Sciences.

English 101-102	10
History 111-112	10
Chemistry 121, 260	10
Zoology 312, 313.....	10
Psychology 101	5
*Political Science 101	(5)
*Survey of American History 100	(5)
Physical Education 1-2	5
Total.....	50-60

TWO-YEAR PRE-VETERINARY MEDICINE PROGRAM**

Adviser: JOHN W. NUTTYCOMBE

FRESHMAN AND SOPHOMORE YEARS

	Hours		Hours
English 101-102	10	Speech 108	5
Mathematics 100-101	10	Dairy 103	3
Political Science 101	5	Animal Husbandry 101	3
Chemistry 121-122	10	Poultry Husbandry 160	3
Botany 121-122	10	Zoology 225-226	10
Military Science 1 or		Chemistry 340 a-b	10
Air Science 5.....	6	Physics 120	5
Physical Education 1 (for men)	0	Animal Husbandry 358 and	
or		either Zoology 401 or	
Physical Education 1		Plant Pathology 358	10
(for women)	5	Military Science 2 or	
		Air Science 6	6
		Physical Education 2 (for men)...	0
		or	
		Physical Education 2	
		(for women)	5
Total.....	50-51	Total.....	54-55

TWO-YEAR PRE-PHARMACY PROGRAM**

Adviser: MONA MAYHORN

In order to be admitted to the professional program in the School of Pharmacy, the student must have completed a minimum of 90 quarter hours of pre-pharmacy courses as specified below, exclusive of Basic Military Science and Physical Education. Students with high academic average, having 90 hours of credit may be admitted with not more than 15 quarter hours of deficiencies in required courses, provided such deficiencies may be completed during the first professional year.

*The State requirement covering the Constitution of the United States and Georgia may be satisfied either by exemption examination or by completing Political Science 101 (5 hours). The State requirement covering the History of the United States and Georgia must be met by passing the examination in this area or completing History 100 (5 hours).

**This program does not lead to a degree from the College of Arts and Sciences.

FRESHMAN AND SOPHOMORE YEARS

	Hours		Hours
Chemistry 121, 122, 223	15	English 121 or 122	5
English 101, 102	10	Human Biology 101-102	10
Mathematics 100	5	Zoology 226	5
Political Science 101 (3).....	5	Physics 127	5
Economics 105	5	History (2)	5
Elective (1)	5	Mathematics 101	5
Military Science 1 or		Electives (1)	10
Air Science 5	6	Military Science 2 or	
Physical Education 1 (for men)	0	Air Science 6	6
or		Physical Education 2 (for men)	0
Physical Education 1		or	
(for women)	5	Physical Education 2	
		(for women)	5
	-----		-----
Total.....	50-51	Total.....	50-51

Upon completion of this program, the student will be eligible to apply for admission to the School of Pharmacy. Application should normally be made to the Dean of the School of Pharmacy during the Winter Quarter of the sophomore year.

ART

Visual Arts Building, North Campus.

Head: Dodd. Staff: Amos, Breithaupt, DeLonga, Dieball, Hazlehurst, McCutchen, Morgan, Pickens, Sanderson, Schwarz, Thomas, Walker, Wall, Wescott.

BASIC DESIGN AND DRAWING

120. ART STRUCTURE. Five laboratory periods. *The Staff.*

Drawing and painting from slides, still life, figure, landscape, modeling in clay. Two visual-audio lectures per week.

130. ART STRUCTURE. Five laboratory periods. *The Staff.*

Problems with emphasis on lettering and layout design. Three-dimensional work in clay, plaster, and wood. Two visual-audio lectures per week.

216. DESIGN. 3 hours. Three laboratory periods. *The Staff.* Prerequisites: Art 120, 130, 140 or permission of instructor.

A study in the creation of two- and three-dimensional design.

217. DRAWING. 3 hours. Three laboratory periods. *The Staff.* Prerequisites: Art 120, 130, 140, 216 or permission of instructor.

Drawing from setups, figures, animals, objects, charcoal, pen, brush and ink, water color, oil, and various media are used.

218. DRAWING AND PAINTING. 3 hours. Three laboratory periods. *The Staff.* Prerequisites: Art 120, 130, 140, 216, 217 or permission of instructor.

A continuation of Art 216 and 217.

140. ART STRUCTURE. Five laboratory periods. *The Staff.*

Drawing and painting. Experience in the manipulation of various three-dimensional materials, wood, paper, metal and synthetics. Two visual-audio lectures per week.

(1) Electives should be chosen from the Humanities, Social Sciences, Psychology or languages and should not be in Science, Business or applied courses.

(2) The History Qualifying Examination will not fulfill this requirement.

(3) Exemption by examination will not fulfill this requirement.

PHOTOGRAPHY

320. PHOTOGRAPHIC DESIGN. Prerequisites: Art 120 or consent of instructor. *Mr. Sanderson.*

Creative design through the use of photography. The student will investigate the experimental possibilities of the entire area of the light sensitive medium.

DRAWING, PAINTING, AND COMPOSITION

313. PRINTMAKING. Prerequisites: Art 120, 130, 140, 216, 217, 218 or consent of instructor. *Mr. Morgan.*

An examination of the various printmaking or graphic techniques such as lithography, etching, engraving, drypoint, aquatint and block printing and the execution of original works in these media.

321. DRAWING AND COMPOSITION. Four laboratory periods and one lecture. Prerequisite: Art 120. *The Staff.*

Picture construction through design and composition.

322. DRAWING AND MODELING. Four laboratory periods and one lecture. Prerequisite: Art 321. *The Staff.*

Two and three-dimensional research in the anatomical construction of the human figure.

323. DRAWING AND PAINTING. Four laboratories and one lecture. Prerequisite: Art 321. *Mr. Dodd* and *Mr. DeLonga.*

Advanced drawings and painting for Drawing and Painting majors. Open as an elective by permission of the instructor.

331. PAINTING. Four laboratory periods and one lecture. Prerequisites: Two drawing courses. *Mr. Thomas* and *Staff.*

Introductory painting. Aesthetic consideration of picture structure.

332. PAINTING. Four laboratory periods and one lecture. Prerequisite: Art 331. *Mr. Thomas* and *Staff.*

Technical consideration of the preparation of grounds, mediums, and pigments. Analyses of the techniques of the masters. Oil, tempera, and mixed techniques.

333-334. PAINTING. Four laboratory periods and one lecture. Prerequisite: Art 332. *Mr. Thomas* and *Staff.*

Advanced painting.

341. WATERCOLOR. Five laboratory periods. Prerequisites: one design and one drawing course. *Mr. Thomas.*

Study of transparent watercolor.

342. WATERCOLOR. Five laboratory periods. Prerequisite: Art 341. *Mr. Thomas.*

Continuation of 341 with emphasis upon opaque watercolor (Gouache).

702. DRAWING AND COMPOSITION. Five laboratory periods. Prerequisites: Art 332 and 334. *Mr. Dodd*, *Mr. DeLonga*, and *Mr. Thomas.*

703. DRAWING AND COMPOSITION. Five laboratory periods. Prerequisite: Art 702. *Mr. Dodd*, *Mr. DeLonga*, and *Mr. Thomas.*

731. PAINTING. Five laboratory periods. Prerequisites: Art 322 and 334. *Mr. Dodd*, *Mr. DeLonga*, and *Mr. Thomas.*

732. PAINTING. Five laboratory periods. Prerequisite: Art 731. *Mr. Dodd*, *Mr. DeLonga*, and *Mr. Thomas.*

800-801. GENERAL ART. Five laboratory periods. *Mr. Dodd* and *Mr. DeLonga.*

804. DRAWING AND COMPOSITION. Five laboratory periods. Prerequisite: Art 703. *Mr. Dodd.*

833. PAINTING. Five laboratory periods. Prerequisite: Art 732. *Mr. Dodd* and *Mr. Thomas.*

ART HISTORY

In the art history courses the student is given an opportunity to become acquainted with the great art of the past, as well as that of the present day. Through this study of the historical, social, and economic conditions of the periods producing art, and through analysis, criticism, and interpretation of the masterpieces, the student acquires knowledge of the fundamental motives and structural principles, and develops a sensitivity to the inherent qualities that make a work of art timeless. The work in art history is closely integrated with the studio work.

Art History courses numbered 300 or above have prerequisites of Art 287, 288 and 289 or permission of instructor.

H-111 (211). THE HISTORY OF THE VISUAL ARTS AS RELATED TO MAN (Honors). *Mr. Hazlehurst and Mr. Walker.*

An interpretive study of the primary art movements of the Western world from their rudimentary beginnings as seen in the arts of primitive man up through the visual arts on the contemporary scene.

287. INTRODUCTION TO THE HISTORY OF ANCIENT ART. 3 hours. *Mr. Hazlehurst and Mr. Walker.*

A survey of world art from Prehistoric through Medieval times. The formal characteristics of the paintings, sculpture, architecture and some of the minor arts will be analyzed in their stylistic and symbolic developments which will be discussed in relation to the changing cultural backgrounds.

288. INTRODUCTION TO THE HISTORY OF RENAISSANCE ART. 3 hours. *Mr. Hazlehurst and Mr. Walker.*

A survey of world art during Renaissance times and up to the Nineteenth Century. The formal characteristics of painting, sculpture, architecture and some of the minor arts will be analyzed in their stylistic and symbolic developments which will be discussed in relation to the changing cultural backgrounds.

289. INTRODUCTION TO THE HISTORY OF MODERN ART. 3 hours. *Mr. Hazlehurst and Mr. Walker.*

A survey of world art during the 19th and 20th centuries. The formal characteristics of the painting, sculpture, architecture and some of the minor arts will be analyzed in their stylistic and symbolic developments which will be discussed in relation to the changing cultural backgrounds.

411. AESTHETICS. (See Philosophy 411).

435. ART CRITICISM. Prerequisite: Four Fine Arts courses, two of which must be in the senior division. *The Staff.*

Study of the theory of art. Designed as a general elective for advanced students of other departments.

476. HISTORY OF HELLENIC ART. *Mr. Breithaupt and Mr. Walker.*

A specialized study of Hellenic architecture, sculpture, painting, and minor arts of the Archaic, Transitional, Fifth Century, Fourth Century, Alexandrian, and Graeco-Roman periods as well as the important periods of Classical Revival in Europe and America. Both literary and Archaeological sources will be used.

480. ART OF THE ITALIAN RENAISSANCE. *Mr. Breithaupt, Mr. Hazlehurst, and Mr. Walker.*

A study of architecture, sculpture, and painting of the fourteenth, fifteenth, and sixteenth centuries in Italy.

483. MODERN ART HISTORY. Prerequisites: Art 287, 288, 289 or permission of instructor. *Mr. Hazlehurst and Mr. Walker.*

The stylistic and theoretical bases of painting, architecture and sculpture as they developed during the 19th Century and to the present. The contribution of leading figures and movements instrumental in forming the art of today.

484. BAROQUE ART. *Mr. Hazlehurst.*

A study of art from the end of the Renaissance to the Industrial Revolution. Emphasis on the history of painting and its relationship to architecture, sculpture, and literature of the period. Special study is given to such major artists as Bernini, El Greco, Velasquez, Rubens, Rembrandt, Vermeer, Poussin, and Watteau.

487. THE ARTS OF THE UNITED STATES. *Mr. Hazlehurst.*

Architecture, sculpture, painting and the minor arts of the United States from Colonial times to the present. The relationship of the arts to the historical and social backgrounds from which they arise; the contribution of American Art to the general field of artistic developments.

488. ART OF PRE-COLUMBIAN AMERICA. Prerequisites: Art 287, 288, 289 or permission of instructor. *Mr. Walker.*

The art product of America from earliest times through the 15th Century with emphasis given to the pre-Inca and Inca peoples of South America and the Maya, Zapotec, Toltec, Aztec and related peoples of Mexico and Central America.

489. POST-COLUMBIAN LATIN AMERICAN ART. Prerequisites: Art 287, 288, 289 or permission of instructor. *Mr. Walker.*

A study of the unique product resulting from the combination of Western Culture with native arts in Latin America from the 15th Century to the present.

491. MEDIEVAL ART. Prerequisites: Art 287, 288, 289 or permission of instructor. *Mr. Hazlehurst.*

Begins with the collapse of antique civilization and traces the subsequent art historical developments of architecture, sculpture, painting, and the minor arts in the succeeding period of the Middle Ages. A review of Roman and Early Christian Art, the progression of Byzantine artistic endeavor in the East and of Romanesque and Gothic in the West, concluding with the rise of realism in Europe in the fifteenth century.

880-881. SPECIAL PROBLEMS IN HISTORY OF ART. Seminar. Prerequisites: Graduate standing and permission of faculty. *The Staff.*

A seminar taking in successive years the creative achievements of a given culture such as the Italian Renaissance, the Middle Ages, the Industrial Revolution, etc. Problems of cultural influence on art, of stylistic analysis, of the connoisseurship will be selected for individual research and group presentation and discussion.

ADVERTISING DESIGN AND COMMERCIAL ART

306. ADVERTISING DESIGN I. Four laboratory periods and one lecture. Prerequisites: Art 216, 217, 218, 308 and 310. *Mr. Dodd.*

Visual communication and graphic techniques.

308. ADVERTISING LAYOUT. Three laboratory periods and two lectures. *Mr. Dieball.*

Fundamentals of color, design, typography, and reproduction related to modern advertising problems. Layout of newspaper, magazine, and direct-mail advertising.

309. ADVERTISING DESIGN II. Four laboratory periods and one lecture. Prerequisites: Art 306, 310, 331 or 341. *Mr. Dieball.*

Continuation of Art 306. Advanced problems in advertising design including preparation of layouts, comprehensive and finished art, study of reproduction problems.

310. LETTERING. Four laboratory periods and one lecture. Prerequisite: Art 130. *Mr. Dieball.*

Principles of lettering and letter construction with experience in lettering as used and reproduced today. Study of typography, in relation to lettering and advertising design.

CRAFTS

350. WEAVING. Five laboratory periods. Prerequisites: Art 130 or 355. *Mr. Sanderson.*

Hand-weaving designed for contemporary living. Experience in drapery, upholstery, and suiting with emphasis on color and texture.

351. TEXTILE DESIGN AND PRINTING. Five laboratory periods. Prerequisites: Art 130 and 216. *Mr. Sanderson.*

A course in designing and producing contemporary fabrics by silk screen method.

352. JEWELRY AND METAL WORK. Five laboratory periods. Prerequisites: Art 130, 140, and 216. *Mr. Sanderson.*

A thorough grounding in the techniques necessary to execute well-designed objects in metals including forming, repousse, stone setting, tool making, metal finishing, enameling and centrifugal casting.

550. TEXTILE DESIGN AND PRINTING. Prerequisites: Two Senior Division Art courses including Art 351, and approval of instructor. *Mr. Sanderson.*

An exploration into the creative potentialities of silk screen designing and printing methods, making use of film stencil, tusche, block-out, and photo stencil methods.

552. JEWELRY AND METAL WORK. Prerequisites: Two Senior Division art courses including Art. 352, and instructor's approval. *Mr. Sanderson.*

An advanced course in design and fabrication in metal. Creative sculptural use of metal as applied to the human module, whether decorative or functional. Exploration in centrifugal casting, alloying, raising, chasing, lapidary, plating, and allied techniques.

CERAMICS

160. POTTERY. Five laboratory periods. *Miss Amos and Mr. McCutchen.*
Form, proportion, and simple ornament as related to pottery shapes. Laboratory exercises and related lectures in handbuilding pottery. No previous art experience is required.

361. POTTERY. Four laboratory periods and one lecture. Prerequisite: Art 160, 261 or 365. *Miss Amos and Mr. McCutchen.*

Laboratory exercises and related lectures in the use of the potter's wheel. Examination of pottery in relation to other art processes.

362. CERAMIC DECORATIVE PROCESSES. Four laboratory periods and one lecture. Prerequisite: Art 361. *Miss Amos and Mr. McCutchen.*

The ceramic of past civilizations is examined to understand better the forming processes, decorative techniques, and artistic standards in pottery making. The adaptation of these techniques applied to the laboratory as a basis for individual experimentation by the student.

363. CERAMIC CALCULATIONS. Two laboratory periods and three lectures. Prerequisites: Chemistry 121-122 and Art 361. *Miss Amos and Mr. McCutchen.*

The chemistry and arithmetic of glazed formulas, composition, and computations studied from the standpoint of technical and artistic points of view.

366. CERAMIC GLAZES. Four laboratory periods and one lecture. Prerequisite: Art 363. *Mr. McCutchen.*

Continuation of Art 363. Emphasis on the adaptation of the fundamentals of glaze behavior to decorative and forming processes.

367. CERAMIC PROBLEMS. Five laboratory periods. Prerequisite: Art 366. *Mr. McCutchen.*

Course for advanced students in ceramics who have sufficient background and technical knowledge to carry on independent projects. Problems combining research in design and ceramic technology are selected in consultation with the instructor.

368. CERAMIC PROBLEMS. Five laboratory periods. *Mr. McCutchen.*
Continuation of Art 367.

560. ADVANCED CERAMIC DESIGN. Five laboratory periods. Prerequisites: Art 367 and 368. *Miss Amos and Mr. McCutchen.*

Individual development in the use of the materials and processes of the ceramic designer. Emphasis on the functional and aesthetic requirements of form and ornament in contemporary ceramics.

561. HISTORICAL PROCESSES IN CERAMICS. Five laboratory periods. Prerequisites: Art 367 and 368. *Miss Amos and Mr. McCutchen.*

Individual research into ceramics of the past and adaptation of knowledge to technical and aesthetic solutions of contemporary problems.

SCULPTURE

370. SCULPTURE. Five laboratory periods. Prerequisites: Art 120, 130, 140, 216, 217, 218 or consent of instructor. *Mr. DeLonga.*

Fundamentals of three-dimensional design. Figure, animal, and abstract modeling. Analyses of great sculpture. Casting and patinas.

371. SCULPTURE. Five laboratory periods. Prerequisite: Art 370. *Mr. DeLonga.*

Individual problems for advanced students. Stone, wood, and metal.

ART EDUCATION

305. ART PRINCIPLES. Five laboratory periods. *Mr. Pickens and Miss Wall.*

Based upon the art needs of youth, the course will deal with socially useful and personally enriching arts. Studio work, films, excursions, gallery visits, readings, discussions and reports.

504. THE VISUAL ARTS IN COMMUNICATION. Prerequisites: Two senior division courses in art and consent of instructor. *Mr. Dieball.*

Through creative work, the student will learn to make aesthetic use of three elements—lettering, organization of plastic patterns, and the nature of a technical process—integrated about a purpose, namely, communication.

513. CRAFTS. Five laboratory periods. *Miss Amos.*

The course develops ability to design three-dimensionally in terms of material, process, and use. According to the needs of individual students, work is done in clay modeling, puppetry, papier mache, textile printing, simple weaving, and loom construction. Use of native materials is stressed. Students have contact with craft programs for children. The course is planned to meet the needs of teachers.

514. DRAWING AND PAINTING. Five laboratory periods. *Mr. Pickens, Miss Wall and Staff.*

Students in this course relate their own work in drawing, pictorial composition, color, and technique to the problems of teaching painting. Through readings, discussions and visits, students study the role of art experience as a means of personal development. Emphasis is placed upon the relationship of art to curricular patterns of the public schools.

515. DESIGN. Five laboratory periods. *Mr. Pickens, Miss Wall, and the Staff.*

The purpose of the course is two-fold: (1) to deepen and broaden the design sense of students; (2) to help them develop means of teaching design as fundamental to every art activity. In accordance with needs of students in the class, the course deals with problems of teaching at various age levels.

523. MATERIALS AND DESIGN. Five laboratory periods. *The Staff.* (Scheduled only with consent of adviser.)

An advanced course offering opportunity to work in one or more of the following fields: pottery, weaving, silk-screen printing, metal working.

536. TEACHING OF ARTS IN THE SECONDARY SCHOOL. Prerequisites: Two senior division courses in education, two senior division courses in art, and consent of instructor. *Mr. Pickens.*

A course for advanced students in art education, supervisors, and administrators. Based upon teaching problems encountered by members of the group, the course will deal with planning, guiding, and evaluating art experiences that meet adolescent and societal needs within various types of curricular patterns.

539. SUPERVISION OF ART. Prerequisites: Four courses in Education; four advanced courses in Art; and consent of instructor. *Mr. Pickens and Miss Wall.*

Problems deal with the development and administration of an art program to meet needs of pupils and community.

540. ART ACTIVITIES IN THE ELEMENTARY SCHOOL. *Miss Amos and Miss Wall.*

Students in this course relate their own creative work in painting, designing, and constructing to the teaching of art.

570. ORGANIC DESIGN IN CONTEMPORARY LIVING. Prerequisites: Two Senior Division courses in Education, two senior Division courses in Art, and consent of instructor. *Mr. Pickens, Miss Wall and the Staff.*

A course for advanced students in designing in terms of space, movement, and light. Abstract problems and those centered directly in life today are explored.

921. LABORATORY IN APPLIED ART EDUCATION. Prerequisites: Four courses in Education, advanced standing in art, and consent of instructor. *Mr. Pickens and the Staff.*

This course is designed to provide opportunities for advanced students to undertake functional studies of topics or problems in Art Education significantly related to their professional tasks.

INTERIOR DESIGN

386. INTERIOR DESIGN. *Mr. Wescott.*

A study of architecture, concepts of interior space, the great periods of furniture design and allied crafts, as a background for comparison with contemporary architecture, furniture, new materials, methods of manufacture, and present day needs.

387. INTERIOR DESIGN. Five laboratory periods. Prerequisites: Two from Art 216, 217, 218. *Mr. Wescott.*

Shop practice in the problems of interior design. A practical application of the theories of color and light as they relate to interiors and furnishings. Practical work in preparing paints and colors for walls, wood finishing, drapery construction. Use of new materials in accessories.

389. INTERIOR DESIGN. Four laboratory periods and one lecture. Prerequisites: Landscape Architecture 255. *Mr. Wescott.*

Drawing and rendering of plans and elevations; measuring and scaling of interiors and furnishings; creative problems in the treatment of interior space, arrangement of furnishings on a basis of design and function.

390. INTERIOR DESIGN. Four laboratory periods and one lecture. Prerequisites: Landscape Architecture 255 and Art 389. *Mr. Wescott.*

Creative problems in the designing of chairs, tables, case goods, and accessories. Lectures on design, contemporary materials, and methods of construction.

391. INTERIOR DESIGN. Four laboratory periods and one lecture. Prerequisites: Landscape Architecture 255 and Art 390. *Mr. Wescott.*

Individual and group projects in planning or remodeling and furnishing of domestic interiors, or commercial interiors. Emphasis on the creative approach and conception of the problem as a whole. Each problem carried through with complete plans, evaluations, specifications, and perspective renderings.

TECHNICAL PROBLEMS

301. TECHNICAL PROBLEMS. Five laboratory periods. *The Staff.*

A special course for students qualified to carry out individual projects in design, crafts, drawing, painting, sculpture, or ceramics. Work is done independently of the regularly scheduled classes. Scheduling of this course must be approved by the Head of the Department of Art.

ASTRONOMY

(See Physics and Astronomy)

BACTERIOLOGY*

(Biological Sciences Building, South Campus; Conner Hall, Dairy Building, Food Technology Building, South Campus; Veterinary Building, South Campus.)

Head: Payne. Staff: Bennett, Carson, Eagon, Foster, Giddens, Hamdy, Howe, Kleckner, McClung, VanEseltine.

For information on additional courses in this and related fields see announcements of the School of Veterinary Medicine and College of Agriculture.

350. INTRODUCTORY MICROBIOLOGY. Three lectures and two double laboratory periods. Prerequisites: 10 hours of biological science, 5 hours of physical science Chemistry 260 or 340a, or concurrently. Biological Sciences Building. *Mr. Eagon, Mr. Howe, Mr. McClung, and Mr. Payne.*

A survey of microorganisms with special emphasis on bacteria and their relationship to man.

352. MICROBIOLOGY AND DISEASE. 3 hours. Three lectures or recitations. Prerequisite: Bacteriology 350. Biological Sciences Building. *Mr. Payne.*

Distribution and nature of specific pathogens; mechanisms of transmission, pathogenesis and defense; means of control or prevention.

*Students may be held responsible for breakage in laboratory courses.

389. DAIRY MICROBIOLOGY. Three lectures or recitations and two double laboratory periods. Prerequisite: Bacteriology 350. Dairy Building. *Mr. Bennett.*

Determination of numbers and types of bacteria; use of microorganisms in the manufacture of dairy products; study of milk fermentation and disease-producing organisms sometimes occurring in milk.

395. MICROBIOLOGY OF FOODS. Two lectures or recitations and three double laboratory periods. Prerequisite: Bacteriology 350. Food Technology Building. *Mr. Hamdy.*

Deals with microorganisms in natural and processed foods; their origin, nature, and effects on foods; enumeration; relations to health.

409. FUNDAMENTALS OF MICROBIOLOGY. Three lectures or recitations and two double laboratory periods. Prerequisite: Bacteriology 350. Biological Sciences Building. *Mr. Egon and Staff.*

Fundamental principles and techniques of general microbiology. Attention will be given to growth, nutrition, inheritance and ecology of representative types of microorganisms.

410. IMMUNOLOGY. Three lectures and two double laboratory periods. Prerequisite: Bacteriology 409 and Chemistry 451, or consent of instructor. Veterinary Building. *Mr. Foster.*

Mechanisms of infection and host resistance; principles and techniques of serology.

411. MICROBIOLOGY OF MARKET MILK AND ICE CREAM. Prerequisite: Dairy Bacteriology 389, Chemistry 260 or 340a. Dairy Building. *Mr. Bennett.*

Microorganisms found in market milk, ice cream and related products and their relationship to spoilage of the products and to epidemiology.

412. MICROBIOLOGY OF BUTTER, CHEESE AND CULTURED MILKS. Prerequisite: Dairy Bacteriology 389, Chemistry 340a or 260. Dairy Building. *Mr. Bennett.*

Metabolic changes resulting from the growth of microorganisms occurring in milk and cream intended for manufacturing dairy products and in butter, cheese, and cultured milks; bacteriophage affecting microorganisms.

421. MICROBIAL FOOD ANALYSIS. Prerequisite: Food Technology 414. One lecture and two 4-hour laboratories. Food Technology Building. *Mr. Hamdy.*

Microbiological, physical, and mathematical considerations involved in determining thermal death times, rates of heat penetration, and in calculating the lethality of processes will be studied with particular reference to spore-forming anaerobes. Isolation, enumeration, and factors affecting sporogenesis, dormancy, and spore germination will be studied. The General Method, Ball's Method, and the newer concepts of process calculation will be compared.

422. PATHOGENIC BACTERIOLOGY. Three lectures and two double laboratory periods. Prerequisite: Bacteriology 410. Veterinary Building. *Mr. VanEseltine.*

Studies on the morphological, cultural and physiological properties of the important pathogenic bacterial and mycotic agents; their relation to health and diseases is emphasized.

440. ELECTRON MICROSCOPY. Five recitations or laboratory periods. Prerequisite: Bacteriology 409 or consent of instructor. Biological Sciences Building. *Mr. McClung.*

Methods of preparation and examination of biological materials by electron microscopy. A survey of the literature and theory of the instrument. Student preparations and interpretation of results.

450. VIROLOGY. Three lectures and two double laboratory periods. Prerequisite: Bacteriology 410. Veterinary Building. *Mr. Foster.*

An introduction to the viruses and rickettsiae; principles and methodology.

461. MICROBIOLOGY OF SOILS. Three lectures or recitations and two double laboratory periods. Prerequisites: Bacteriology 350; Agronomy 458, or consent of the instructor. Conner Hall. *Mr. Giddens.*

A survey of the microorganisms occurring in the soil; their activities and effects on soils and crops; factors affecting them; enumeration.

470. **MEDICAL MYCOLOGY.** Two lectures or recitations and three double laboratory periods. Prerequisite: Bacteriology 350. Biological Sciences Building. *Mr. McClung.*

A survey of the yeasts, molds and actinomycetes most likely to be encountered by the bacteriologist with special emphasis on the forms that are pathogenic for man and other animals.

480. **MICROBIAL GENETICS.** Three lectures and two laboratory periods. Prerequisites: Bacteriology 350; Zoology 370. Biological Sciences Building. *Mr. Howe.*

A study of the genetics of microorganisms.

800. **INDUSTRIAL FERMENTATIONS (Food Technology).** Three lectures and three double laboratory periods. Prerequisite: Bacteriology 350, and Chemistry 451. Food Technology Building. *Mr. Hamdy.* (Offered alternate years. Offered in 1961 - 62.)

The ketogenic fermentation process, production of organic acids, enzymes, vitamins, antibiotics, dextran and other products from agricultural or industrial starting materials. Emphasis on theoretical or fundamental reactions involved and conditions affecting fermentative efficiency.

810. **IMMUNOCHEMISTRY.** Two lectures and three double laboratory periods. Prerequisite: Bacteriology 410 or consent of instructor. Veterinary Building. *Mr. Foster.* (Offered alternate years. Offered in 1961 - 62.)

Detailed investigation into the chemistry of antigenically active substances and mechanisms of immunological reactions. Lecture emphasis will be on current literature.

816. **SEMINAR IN MICROBIOLOGY.** One hour per week. Available to majors in bacteriology, zoology, plant sciences, agriculture, with two courses in bacteriology as prerequisite. Required for all graduate students in bacteriology throughout residence. Biological Sciences Building. *The Staff.*

Meetings for discussion of research and new developments in the field.

820. **ADVANCED VETERINARY MICROBIOLOGY.** Prerequisite: Bacteriology 422 and 450. Veterinary Building. *Mr. Kleckner and Staff.*

A detailed study of the animal pathogens and their relationship to diseases.

860. **PHYSIOLOGY OF BACTERIA.** Five double periods. Prerequisites: Bacteriology 350, 409; Chemistry 451, or equivalent. Biological Sciences Building. *Mr. Eagon and Mr. Payne.*

Survey of the physiology and metabolism of microorganisms.

900. **PROBLEMS IN BACTERIOLOGY.** Maximum credit of 50 hours, with no more than 10 hours applying to any one degree. Must be preceded by adequate preparation in bacteriology. *The Staff.*

This course allows students to pursue intensive study under the direction of staff members, on approved problems in medical, agricultural, marine, and general microbiology.

BIOLOGICAL SCIENCES

Bacteriology—See page 155

Botany—See below

Entomology—See page 171

Zoology—See page 217

BOTANY*

(Biological Sciences Building, South Campus)

Head: Westfall. Staff: Beck, Brown, Carlton, Duncan, James, Michel, Plummer

110. **PLANT BIOLOGY AND MAN.** No credit will be allowed for Botany 110 if credit is shown for Botany 121. Five one-hour periods.

Basic studies of life, employing a variety of plant materials and emphasizing the relationship of structures and processes to the welfare of man.

*Students may be held responsible for breakage in laboratory courses.

111. PLANT BIOLOGY AND MAN (continued). No credit will be allowed for Botany 111 if credit is shown for Botany 122. Five one-hour periods.

A study of the reproduction, heredity, evolution, and environmental relationships of representative groups of plants, emphasizing economic and cultural applications.

121. ELEMENTARY BOTANY. Not open to students who have credit for Botany 110. Three one-hour lecture periods and two two-hour laboratory periods. *Mr. Carlton and the Staff.*

A study of (a) the structure of leaves, stems, and roots; (b) growth and nutritive processes of plants; and (c) the relations of plants to their environment.

122. ELEMENTARY BOTANY (continued). Not open to students who have credit for Botany 111. Three one-hour lecture periods and two two-hour laboratory periods. *Mr. Carlton and the Staff.*

A study of reproduction, variation, heredity and evolution of seed plants, with studies of representatives of other major plant groups and their importance.

305. IDENTIFICATION OF FLOWERING PLANTS. Five double laboratory periods, outdoors on field trips when possible. Attendance on scheduled all-day or longer trips to mountains, coastal islands, etc. may be substituted for an appropriate number of regular sessions. Prerequisites: None, except that the course is not open to freshmen without the consent of the instructor. *Mr. Duncan and Mr. James.*

Studies in the identification of plants with emphasis on wild flowers.

306. IDENTIFICATION OF TREES AND SHRUBS. Three two-hour periods each week plus three full-day trips as scheduled. Given winter quarter. Prerequisites: None, except freshmen should have permission of instructor. *Mr. James.*

Studies in the identification of trees and shrubs with emphasis on identification in winter condition.

323. ELEMENTARY PLANT ANATOMY. Five two-hour laboratory periods. Prerequisites: Botany 121-122 or Botany 110-111. *Mr. Carlton.*

The origin and development of the organs and tissue systems of vascular plants, and a comparative study of the structure of roots, stems, leaves, flowers, and fruits.

358. METHODS OF PLANT HISTOLOGY. Five double laboratory periods. Prerequisites: Botany 121-122 or Botany 110-111. *Mr. Carlton.*

Principles and methods of killing, fixing, embedding, sectioning, staining, and mounting plant materials for microscopic study.

375. PLANT ECOLOGY. Three one-hour lecture-discussion periods, two double periods of field trips or laboratory per week, and/or occasional week-end field trips. Prerequisites: Botany 121-122 or Botany 110-111. *Mr. Plummer.*

Plant geography, community analysis, symbiosis, species populations, limiting factors, cycles, rhythms, and applied implications. Fall quarter: synecology; Spring quarter: autecology; Summer: field trips.

380. PLANT PHYSIOLOGY. Three one hour lectures and two double laboratory periods. Prerequisites: Botany 121-122 or Botany 110-111. *Mr. Beck.*

A survey of physiological processes occurring in economic plants and the conditions which effect these processes.

471. TAXONOMY OF SEED PLANTS. Five double laboratory periods. Prerequisites: Botany 305 or equivalent and any other senior division course in botany or approved course in plant pathology, forestry, or geography. *Mr. Duncan.*

A study of identification and classification of seed plants with emphasis on the flora of the southeastern states.

473. IDENTIFICATION OF GRASSES. Five double laboratory periods. Prerequisites: Botany 110-111 or Botany 121-122 and two senior division courses in botany or approved courses in other plant sciences. *Mr. Duncan.*

Studies in the identification and classification of grasses with emphasis on structure and ecology. Numerous economically important species are included.

475. BRYOPHYTES. Three one-hour lectures and two double laboratory periods. Fall quarter of odd numbered years. Prerequisites: Any two senior division courses in botany or plant pathology. *Mr. Duncan.*

Studies in the morphology and taxonomy of Bryophytes. The laboratory will be devoted partly to study of Bryophytes in the field.

476. VEGETATION OF NORTH AMERICA. Six hours library-laboratory, three hours seminar per week and a week-end field trip. Spring quarter. Prerequisites: Fifteen hours credit in botany, geology and geography, or agriculture. *Mr. Plummer.*

Theories of plant geography, climax formations, and the causes of contemporary vegetation. Include floristics, indicator plants and problems in land utilization. Emphasizes eastern North America.

477. AUTECOLOGY. Six hours library-laboratory, three hours seminar per week and week-end field trips. Prerequisites: Botany 375 and 380 or consent of the instructor. *Mr. Plummer.* (Offered spring quarter, even numbered years.)

Emphasizes environmental factors connected with the welfare of plants and relates them to structure, function, and evolution of species. Includes aspects of biological factors and radiation ecology.

478. PTERIDOPHYTES. Four one-hour lecture, discussion, or demonstration periods and one two-hour laboratory period. Fall quarter of even numbered years. Prerequisites: Any two senior division courses in botany or plant pathology. *Mr. Duncan.*

Studies in the identification, classification, and morphology of the Pteridophytes.

482. NUTRITION OF GREEN PLANTS. Two lectures and three double laboratory periods. Botany 323 and 380. *Mr. Beck* and *Mr. Michel.*

A study of the nutrition of the higher plants, including major and minor elements and deficiency symptoms.

520. FIELD AND LABORATORY BOTANY. Two lectures and three double laboratory periods and special field trips. Prerequisites: Botany 121-122 or equivalent and two senior division courses in botany or education. *Mr. Westfall.*

A course in field botany designed especially for teachers. Particular emphasis is placed upon the identification of local flowering plants and ferns, and upon the selection and use of materials for correlating the study of plants with other subjects.

522. ADVANCED FIELD AND LABORATORY BOTANY. Two lectures and three double laboratory periods and special field trips. Prerequisite: Botany 520. *Mr. Westfall.*

A second course primarily for teachers, emphasizing plant identification, environmental relationships, and plant distribution.

802 and 804. PROBLEMS IN BOTANY. 5 hours for each course. Under this heading work may be pursued under the direction of staff members in plant anatomy, plant ecology, plant morphology, plant physiology, plant taxonomy, or mycology. Prerequisites: two senior division courses in botany or approved courses in agriculture, geography, or forestry. *The Staff.*

831. MORPHOLOGY OF SEED PLANTS. Five double laboratory periods. Prerequisites: Botany 323 and one other senior division course in botany or plant pathology. *Mr. Westfall.*

Critical studies of representative seed plants, considering their development and relationships.

840. CYTOLOGY. Two lecture and three double laboratory periods. Prerequisites: Biology 401 or equivalent, and one other approved senior division course. Credited toward a major in botany or zoology. *Mr. Westfall.*

The study of cells, their cytoplasm and nuclei, metabolism, growth, differentiation, and reproduction.

842. CYTOGENETICS. Two lecture and three double laboratory periods. Prerequisites: Botany 840. Credited toward a major in botany or zoology. *Mr. Westfall.*

A course dealing with the correlation of genetic data and cytological structures and processes, emphasizing the mechanisms of normal chromosome distribution, chromosomal aberrations, and their relationship to the development of species.

849. INTRODUCTION TO RESEARCH. Two lecture-discussion and three library or laboratory periods per week. Prerequisites: One 400-600 course in the field of chosen research. *Graduate Staff.*

A study of the literature of botany, research procedures, and discussions which can be found only in the original articles.

860. AQUATIC PLANTS. Three one-hour lectures and two double laboratory periods. Prerequisites: Botany 110-111 or Botany 121-122 and any two courses numbered above 300 in botany, entomology, or zoology which provide taxonomic training. *Mr. Duncan.*

A study of the taxonomy, distribution, and ecology of aquatic plants, with emphasis upon fresh-water forms and habitats. Laboratory will be devoted mostly to study of aquatic plants in the field.

872. ADVANCED TAXONOMY OF SEED PLANTS. Two lectures and three double laboratory periods. Prerequisite: Botany 471 or equivalent.

A study of the taxonomy of special groups, concepts and systems of classification, and problems of nomenclature.

883. ADVANCED PLANT PHYSIOLOGY. Two hours lecture and three double laboratory periods per week. Prerequisites: Botany 380 and any other senior division courses in botany, chemistry, or plant pathology. *Mr. Beck* and *Mr. Michel.*

An evaluation of concepts in plant physiology with special attention to the methods employed in arriving at these concepts.

884. PLANT GROWTH AND DEVELOPMENT. Two hours lecture and three double laboratory periods per week. Prerequisites: Botany 380 and Organic Chemistry. *Mr. Michel.*

Study of factors influencing seed germination, plant growth, and floral development, with special emphasis on the compounds affecting these processes.

CHEMISTRY*

(Chemistry Building, South Campus.)

Head: Scott. Staff: Agerton, Brockman, Clark, Coggin, Cormier, Dargan, Firsching, Heric, Jacobs, Johnston, Lamb, McRorie, Novelli, Philbrook, Totter, Waggoner, Whitehead, Wilder, Williams.

INORGANIC CHEMISTRY

121, 122. GENERAL CHEMISTRY. Four lectures or recitations and one laboratory period per week each quarter. *The Staff and Assistants.*

The first course covers the chemistry of the non-metallic elements, including a systematic treatment of chemical principles and their applications. The second course is a continuation of the first, including a general survey of the metallic elements.

H-125, H-126. GENERAL CHEMISTRY (Honors). 10 hours. Four lectures and one laboratory period per week each quarter. *Mr. Philbrook, Mr. Waggoner, or Mr. Whitehead* and assistants.

The basic concepts of chemistry.

370, 371. INDUSTRIAL CHEMISTRY. Five lectures per week each quarter. Prerequisites: 370—Chemistry 122 and one other chemistry course with laboratory; 371—Chemistry 260 or equivalent. *Mr. Brockman.*

370 covers important chemical processes and recent developments in various inorganic chemical industries. 371 deals with the important chemical processes and recent developments in various organic chemical industries.

420, 421, 424. ADVANCED INORGANIC CHEMISTRY. Five lectures or recitations per week each quarter. Prerequisites: 420—Chemistry 122 and two other chemistry courses with laboratory; 421, 424—Chemistry 223 and one other chemistry course with laboratory. *Mr. Brockman, Mr. Waggoner, or Mr. Whitehead.*

These courses comprise a comprehensive treatment of atomic structure, molecular structure and theories of valence; the second course emphasizes the periodicity of the chemical properties of the elements; the third course deals with the winning of the metals from their ores.

*Students will be held responsible for breakage in laboratory courses.

515. DEVELOPMENT OF CHEMICAL THEORIES. Five lectures or recitations. Prerequisites: Twenty hours in natural sciences. *Mr. Philbrook* or *Mr. Whitehead*.

The development and significance of laws, theories and hypotheses from the Greek period to the present.

522. ADVANCED INORGANIC PREPARATION. One lecture and four laboratory periods. Prerequisites: Chemistry 122 and two other chemistry courses with laboratory. *Mr. Brockman*.

Selected syntheses of inorganic compounds.

525. CHEMISTRY FOR TEACHERS. Four lectures or recitations and one laboratory period per week each quarter. Prerequisites: Ten hours of chemistry and twenty hours of physical sciences. *Mr. Waggoner* and *Mr. Whitehead*.

Lectures, recitations and laboratory work over a wide field of modern chemistry to prepare for teaching general science and high school chemistry. Limited to candidates for the Master of Education or B.S. in Education.

821. ADVANCED INORGANIC CHEMISTRY. 3 to 21 hours.

821.1. (Formerly 826h), 3 hours. THE NON-METALLIC ELEMENTS. Prerequisites: Chemistry, four courses with laboratory. *Mr. Waggoner*.

821.2. (Formerly 827h), 3 hrs. THE LESS FAMILIAR ELEMENTS. Prerequisites: Chemistry, four courses with laboratory. *Mr. Waggoner*.

821.3. (Formerly 828h), 3 hrs. STRUCTURAL INORGANIC AND STEREOCHEMISTRY. Prerequisites: Chemistry, four courses with laboratory. *Mr. Waggoner*.

825. SPECIAL TOPICS IN INORGANIC CHEMISTRY. 3 to 21 hours.

825.1. NONAQUEOUS SOLVENTS. 3 hrs. Prerequisites: Two of Chemistry 821.1, 821.2, or 821.3. *Mr. Waggoner*.

ANALYTICAL CHEMISTRY

223. QUALITATIVE INORGANIC ANALYSIS. Two lectures or recitations and three laboratory periods. Prerequisite: Chemistry 122. *Mr. Firsching*, *Mr. Jacobs*, *Mr. Whitehead*, and *Assistants*.

The fundamental theories of qualitative analysis and analyses of common cations and anions by semi-micro methods.

380. QUANTITATIVE INORGANIC CHEMISTRY. Two lectures and three laboratory periods. Prerequisite: Chemistry 223. *Mr. Firsching*, *Mr. Jacobs*, *Mr. Whitehead*, and *Assistants*.

The fundamental theories of quantitative analysis and typical analyses involving volumetric and gravimetric methods.

480. ADVANCED QUANTITATIVE ANALYSIS. One or two lectures and four or three laboratory periods. Prerequisite: Chemistry 380. *Mr. Firsching*, *Mr. Whitehead*, and *Assistants*.

Advanced work in inorganic quantitative analysis: potentiometric methods; organic reagents, electrolytic methods and systematic analyses.

481. COMMERCIAL ANALYSIS. One or two lectures and four or three laboratory periods respectively. Prerequisites: Chemistry 380 and 260 or 340a. *Mr. Firsching*, *Mr. Whitehead*, and *Assistant*.

Qualitative and quantitative analysis of water, alcohols, sugars, nitrogen compounds, saponifiable oils and hydrocarbon products, using standard commercial methods. The theoretical basis of each method is given.

580. INSTRUMENTAL METHODS OF ANALYSIS. Two lecture and three laboratory periods. Prerequisites: Chemistry 340b and 380. *Mr. Jacobs*.

This course covers the use of special instruments for analysis. These include refractometers, electrophotometers, spectrophotometers, polarograph, and electrical instruments.

881. ADVANCED ANALYTICAL CHEMISTRY. 3 to 21 hrs.

*Students will be held responsible for breakage in laboratory courses.

881.1. INSTRUMENTAL ANALYSIS-OPTICAL. 3 hrs. Prerequisite: Chemistry 490c. *Mr. Jacobs.*

881.2. INSTRUMENTAL ANALYSIS-ELECTRICAL. 3 hrs. Prerequisite: Chemistry 490c. *Mr. Jacobs.*

882. PROBLEMS IN ANALYTICAL CHEMISTRY. One conference and four laboratory periods. Prerequisite: Chemistry 480 or 481. *Mr. Whitehead.*

Intensive study of problems in a special field such as textiles, dyes and pigments, metallic alloys, etc.; the theoretical and practical means of solving such problems.

885. SPECIAL TOPICS IN ANALYTICAL CHEMISTRY. 3 to 21 hrs.

885.1. ANALYTICAL USES OF RADIOISOTOPES. 3 hrs. Prerequisites: Chemistry 480 and Physics 672. *Mr. Firsching.*

885.2. ION EXCHANGE AND CHROMATOGRAPHY. 3 hrs. Prerequisites: Chemistry 881.1 and 881.2. *Mr. Jacobs.*

AGRICULTURAL AND BIOCHEMISTRY

260. AGRICULTURAL CHEMISTRY. Four lectures or recitations and one laboratory period. Prerequisite: Chemistry 122, or with consent of Head of Department. *Mr. Coggin, Mr. Philbrook, Mr. Wilder, and Assistants.*

A brief terminal introduction to aliphatic organic chemistry with material of especial interest to students of Agriculture, Home Economics and Forestry.

351. A TERMINAL COURSE IN GENERAL BIOCHEMISTRY. Four lectures and one two-hour laboratory. Prerequisite: Chemistry 260. *Mr. Cormier or Mr. Totter.*

A brief survey of the chemical nature of cellular constituents and their metabolic interrelationships.

451. PHYSIOLOGICAL CHEMISTRY. Four lectures or recitations and one laboratory period. Prerequisites: Chemistry 260 and a course in Botany or Biology or Zoology or Animal Husbandry or Poultry Husbandry. *Mr. Coggin, Mr. Cormier, Mr. McRorie or Mr. Totter.*

Fundamental principles of physiological chemistry in the animal body, including the chemistry of foods, digestion, metabolism and excretions.

852. PHYSIOLOGICAL CHEMISTRY. Four lectures or recitations and one laboratory period. Prerequisite: Chemistry 451. *Mr. Coggin, Mr. Cormier, Mr. McRorie or Mr. Totter.*

The metabolism of carbohydrates, lipids and proteins.

855.1. PHYTOCHEMISTRY. 3 hours. Three lectures. Prerequisites: Chemistry 451, and one course in botany. *Mr. Cormier or Mr. McRorie.*

A study of the compounds and chemical principles encountered in plants.

856. PROTEIN CHEMISTRY (Food Technology).

ORGANIC CHEMISTRY

340 a-b. ORGANIC CHEMISTRY. 10 hours. Three or four lectures or recitations and one or two laboratory periods each quarter. Prerequisite: A grade of 70 or better in Chemistry 121, 122. *Mr. Clark, Mr. Coggin, Mr. Lamb, Mr. Philbrook, Mr. Scott, and Assistants.*

Chemistry 340a. The aliphatic hydrocarbons and their derivatives.

Chemistry 340b. A continuation of 340a and a treatment of the coal tar compounds

342. ADVANCED ORGANIC PREPARATIONS. Two consultations and three laboratory periods. Prerequisite: A grade of 80 or better in Chemistry 340 a-1 or permission of the instructor. *Mr. Scott and Mr. Philbrook.*

Selected syntheses, such as Grignard, Friedel and Craft; acetoacetic ester and others; also oxidations, reductions, and condensations.

441. ORGANIC QUALITATIVE ANALYSIS. One consultation and four laboratory periods. Prerequisite: Chemistry 340 a-b. *Mr. Clark, Mr. Lamb, Mr. Scott, and Mr. Philbrook.*

Identification of pure organic compounds and of mixtures.

445h. ADVANCED ORGANIC CHEMISTRY. 3 hours each quarter. Three lectures or recitations. Prerequisite: Chemistry 340b. *Mr. Philbrook.*

An advanced treatment of organic chemistry with special emphasis on structure and the mechanics of reactions.

540. ORGANIC CHEMISTRY FOR TEACHERS. Four lectures and one laboratory. Prerequisites: 10 hours of Chemistry and 20 hours of physical and (or) biological sciences. *Mr. Philbrook* or *Mr. Scott.*

831. ADVANCED ORGANIC CHEMISTRY. 3 to 21 hrs.

831.1. MODERN ORGANIC THEORY. 3 hrs. Prerequisite: Chemistry 342 or equivalent. *Mr. Clark, Mr. Lamb, or Mr. Philbrook.*

831.2. MODERN ORGANIC THEORY. 3 hrs. Prerequisite: Chemistry 831.1. *Mr. Clark, Mr. Lamb, or Mr. Philbrook.*

835. SPECIAL TOPICS IN ORGANIC CHEMISTRY. 3 to 30 hrs.

835.1. STEREOCHEMISTRY. 3 hrs. Prerequisite: Chemistry 342. *Mr. Philbrook.*

835.2. ORGANO-METALLIC COMPOUNDS. 3 hrs. Prerequisite: Chemistry 342. *Mr. Philbrook.*

835.3. HETEROCYCLIC COMPOUNDS. 3 hrs. Prerequisite: Chemistry 342. *Mr. Clark.*

835.4. ORGANIC COMPOUNDS OF NITROGEN. 3 hrs. Prerequisite: Chemistry 342. *Mr. Scott.*

835.5. PHYSICAL METHODS. One lecture and two laboratory periods. 3 hrs. Prerequisite: Chemistry 831.2. *Mr. Lamb* or *Mr. Philbrook.*

835.6. KINETICS. 3 hrs. Prerequisites: Chemistry 690c and 831.2. *Mr. Lamb.*

835.7. ORGANIC IONIC MECHANISMS. 3 hrs. Prerequisites: Chemistry 835.6. *Mr. Philbrook.*

835.8. ORGANIC FREE RADICALS MECHANISMS. 3 hrs. Prerequisites: Chemistry 835.6. *Mr. Lamb.*

835.9. POLYMER CHEMISTRY. 3 hrs. Prerequisite: Chemistry 835.6. *Mr. Firsching* or *Mr. Lamb.*

840. ADVANCED ORGANIC PREPARATIONS. One consultation and four laboratory periods. Prerequisite: A grade of 80 or better in Chemistry 340 a-b and 342 or equivalent. *Mr. Clark, Mr. Lamb, Mr. Scott, and Mr. Philbrook.*

Selected syntheses, such as Grignard, Friedel and Craft; acetoacetic ester and others; also oxidations, reductions, and condensations.

842. ORGANIC QUANTITATIVE ANALYSIS. One consultation and four laboratory periods. Prerequisites: Chemistry 441 and 380. *Mr. Clark, Mr. Lamb, or Mr. Philbrook.*

Quantitative analysis of organic compounds for carbon, hydrogen, oxygen, and nitrogen by combustion; the determination of halogens and sulfur by the bomb method. Both macro and micro methods are available.

PHYSICAL CHEMISTRY

390. ELEMENTS OF PHYSICAL CHEMISTRY. Five lectures or recitations. Prerequisites: Chemistry 223, 340a and Physics 120. *Mr. Heric, Mr. Johnston, Mr. Philbrook* or *Mr. Whitehead.*

A brief introduction to physical chemistry, designed primarily for pre-medical students.

400. COLLOID CHEMISTRY. Three lectures and two laboratory periods. Prerequisites: Chemistry 390 and 340a and Physics 120. *Mr. Whitehead.*

Fundamental theories of colloid chemistry with typical laboratory experiments.

490 a-b-c. PHYSICAL CHEMISTRY. 15 hours. Four lectures or recitations and one laboratory period. Prerequisites: Chemistry 380, 340a, Physics 229 and Mathematics 355. *Mr. Heric* or *Mr. Johnston*.

A three quarter course in the fundamental principles of physical chemistry and typical laboratory experiments.

491 a-b-c. PHYSICAL CHEMISTRY. 12 hours.

The lecture part only of 490 a-b-c.

891. CHEMICAL THERMODYNAMICS. 3 to 21 hours. Three lectures.

891.1 CHEMICAL THERMODYNAMICS. 3 hours. Prerequisites: Chemistry 490c. *Mr. Heric* or *Mr. Johnston*.

891.2. CHEMICAL THERMODYNAMICS. 3 hours. Prerequisite: 891.1. *Mr. Heric* or *Mr. Johnston*.

895. SPECIAL TOPICS IN PHYSICAL CHEMISTRY. 3 to 21 hours.

895.1. QUANTUM CHEMISTRY. Prerequisite: Chemistry 490c. *Mr. Heric* or *Mr. Johnston*.

895.2. STATISTICAL THERMODYNAMICS. Prerequisites: Chemistry 891.2 and 895.1. *Mr. Heric* or *Mr. Johnston*.

RESEARCH AND THESIS

349. INTRODUCTION TO RESEARCH. (Field to be inserted). One lecture and four library or laboratory periods. Prerequisites: 441 or 480 or 481 or 490c or 522. *The Graduate Staff*.

An introduction to the literature of chemistry, research procedures, and directions which can be found only in original articles.

811. CHEMICAL SEMINAR. 1-18 hours. *The Staff*.

849. INTRODUCTION TO RESEARCH. (Field to be inserted). One lecture and four library or laboratory periods. Prerequisites: 441 or 480 or 481 or 490c or 522. *The Graduate Staff*.

An introduction to the literature of chemistry, research procedures, and directions which can be found only in original articles.

900. LABORATORY RESEARCH IN CHEMISTRY. (Field to be inserted). 5 to 50 hours. Prerequisite: Chemistry 349 or 849. *The Graduate Staff*.

901. PROBLEMS IN CHEMISTRY. 1-15 hours. Prerequisites: 50 hours in Chemistry. *The Graduate Staff*.

930. THESIS IN CHEMISTRY. 5 to 50 hours. *The Graduate Staff*.

CLASSICS

(Robert E. Park Hall, North Campus)

Head: Alexander. Staff: Rutledge, Scudder.

CLASSICAL CULTURE

All courses in this section are given in English translation.

301. CLASSICAL CULTURE: GREECE. *Mr. Alexander*.

A study of the characteristics of Greek culture, made principally through translations of selections from Greek authors.

302. CLASSICAL CULTURE: ROME. *Mr. Alexander*.

A study of the characteristics of Latin culture, made principally through translations of selections from Latin authors.

H-305 (301). CLASSICAL CULTURE: GREECE (HONORS). *Mr. Alexander*.

For honors students only. A survey of Greek Literature in which more extensive reading is done than in Classical Culture 301. There will be supplementary readings and required papers. Not open to students with credit in 301.

310. ENGLISH DERIVATIVES FROM GREEK AND LATIN. *Mrs. Scudder*.
General etymology and vocabulary of the English language. Prefixes, suffixes, and root words, as well as families of words will be studied.
356. HOMER AND THE EPIC TRADITION. *Mr. Alexander*. (Offered in alternate years.)
A detailed study of Homer and his influence in later European literature.
357. CLASSICAL DRAMA. *Mr. Alexander*. (Offered in alternate years).
Selected plays of Aeschylus, Sophocles, and Euripides, studied through their influence on later European literatures.
801. GREEK CIVILIZATION. Prerequisite: ten hours of approved advanced courses in classics, modern languages, or literature; no knowledge of Greek required. *Mr. Alexander*.
A survey of Greek civilization studied through literature in translation. Research problems in special subjects.

GREEK

Freshmen may elect the three introductory courses in Greek.

- 201-202. ELEMENTARY GREEK. *Mr. Alexander*.
A double course meeting for two quarters in the elements of the Greek language; study of Greek history, geography, and social customs.
203. READING IN GREEK. Prerequisites: Greek 201 and 202. *Mr. Alexander*.
Selected readings from Greek authors.
304. HOMER. Prerequisites: Greek 201, 202, and 203 or equivalent. *Mr. Alexander*.
Detailed study of selections from the Iliad or the Odyssey.
500. HONORS COURSE.

LATIN

Freshmen may elect the three introductory courses in Latin. Students continuing Latin begun in high school will be placed in the appropriate course on the basis of personal consultations with instructor.

- 201-202. ELEMENTARY LATIN. *Mr. Rutledge*.
A double course meeting for two quarters in the elements of the Latin language.
203. INTERMEDIATE LATIN. Prerequisites: Latin 201 and 202 or two high school units in Latin. *Mr. Rutledge*.
Selected readings from Cicero's orations; review of forms and syntax.
304. READING IN LATIN. Prerequisite: Latin 203 or equivalent. *Mr. Rutledge*.
Selected readings from Virgil and Ovid.
305. LIVY. Prerequisite: Latin 304 or equivalent. *Mr. Rutledge*.
Selected readings from the Histories of Livy.
306. HORACE. Prerequisite: Latin 304 or equivalent. *Mr. Rutledge*.
Selected readings from the Odes of Horace.
500. HONORS COURSE.
550. LATIN FOR TEACHERS. A review course designed especially for high school teachers. Prerequisites: at least ten quarter-hours of Latin with a total of twenty quarter-hours of a foreign language and permission of the instructor. *The Staff*. (Offered in Summer School only.)

DRAMA

(See Speech and Drama)

ECONOMICS

(Commerce-Journalism Building, North Campus)

105. PRINCIPLES OF ECONOMICS. *The Staff.*

Description and analysis of the economic organization of modern society with a brief introduction to the theory of value and distribution.

This course is required of all students in the College of Business Administration and A.B. majors in Economics. It is elective as a social science for all other students and may be taken without Economics 106.

106. PROBLEMS OF ECONOMICS. Prerequisite: Economics 105. *The Staff.*

Economic problems based upon the principles studied in Economics 105.

This course is required of all students in the College of Business Administration and A.B. majors in Economics.

These two courses (105 and 106) are prerequisite to all advanced courses in economics and business administration, except by special permission of the instructor.

133. ECONOMIC DEVELOPMENT OF THE UNITED STATES. *Mr. Smith and the Staff.*

American economic development from the colonial period to the present; economic factors involved in industrial growth and the resulting economic problems.

312. ELEMENTARY ECONOMIC STATISTICS. *Mr. Sebba and the Staff.*

Introduction to the presentation and analysis of quantitative economic data; statistical sources; table reading; chart making; introduction to index numbers and time series analysis.

326. MONEY AND BANKING. *The Staff.*

Money in the economic organization; monetary theory; methods of stabilizing the price level; theories of bank deposits; discount policy and the interest rate of central banks; regulation of credit.

330. BUSINESS FINANCE. Prerequisite: Business Administration 111. *The Staff.*

Financial promotion and organization of the business firm; problems of financial administration; failures; financial rehabilitation.

334. BUSINESS FINANCE. *The Staff.*

Principles and practices involved in buying on credit; borrowing money, saving money, buying securities, insurance, annuities, real estate; problems of taxation and wills.

358. (GEOGRAPHY) ECONOMIC GEOGRAPHY. *Mr. Prunty.*

Relation of geographic factors to economic conditions in determining the nature and location of the several productive occupants; distribution of the output.

358. (GEOGRAPHY) ECONOMIC GEOGRAPHY. Prerequisite: Geography 101 or Geology 125 or Economics 105. *Mr. Northam and Mr. Prunty.*

Distribution and reasons for economic occurrence of agricultural, forest, and mineral raw materials; production and transportation systems and occupancy patterns related thereto; selected theories in spatial and area development of resources; resource potentials for the future in light of expanding populations.

360. PRINCIPLES OF MARKETING. *Mr. Troelston and the Staff.*

Principles and methods involved in the movement of goods and services from producers to consumers.

380. (SOCIOLOGY) INDUSTRIAL SOCIOLOGY. Prerequisite: Economics 105 or Sociology 105. *Mr. Bowers and Mr. Payne.*

Human relations in the industrial setting; the relationship of growing, operating, or declining industrialization to the community and the larger society.

386. LABOR ECONOMICS. *The Staff.*

Survey of labor organization, wages, hours, unemployment, labor legislation, and current developments in labor.

400. (ANTHROPOLOGY) EARLY ECONOMIC SYSTEMS. Prerequisites: Anthropology 102 and Economics 105. *Mr. Kelly.*

Economic life of primitive peoples; concepts and principles of classical economics, developed in Western Civilization, are studied in the light of practices and thought among primitive groups in Asia, Africa, and the South Pacific.

406. ADVANCED ECONOMIC THEORY. *Mr. Beadles.*

Application of theoretical tools to value, distribution, money, business fluctuations, and the relationships between government and business.

409. (SOCIOLOGY) SOCIAL CHANGE. Prerequisite: Economics 105 or Sociology 105. *Mr. Bowers.*

Nature and theories of social change; causes and types of social change; cultural lag theory; social effects of inventions; adjustments of contemporary social institutions to technological change; impact of future technology on society.

421. PUNCHED-CARD STATISTICS. Prerequisites: Business Administration 315 and an introductory course in statistics. *The Staff.*

Use of punch-card machines in the treatment of numerical data; preparation of statistical surveys in a form suitable for machine use in the processing of the data; use of tables in the form of pre-punched cards.

430. CORPORATE FINANCIAL POLICY. Prerequisite: Economics 330. *Mr. Dince.*

Analysis of financial problems and policies of corporations.

431. INVESTMENTS. Prerequisite: Economics 330. *Mr. Dince.*

Elements of an "ideal" investment; examination and testing of specific investment securities.

432. FUNDAMENTALS OF INVESTMENT BANKING. Prerequisite: Economics 330. *Mr. Dince.*

Study of the economic and financial factors for appraising securities.

433. (SOCIOLOGY) POPULATION THEORY AND PROBLEMS. Prerequisite: Economics 105 or Sociology 105. *Mr. Belcher.*

Theory and dynamics of population growth; population pressure; migration; composition differential fertility; theories of the quality and optimum population; economic and social aspects of our population.

434. (POLITICAL SCIENCE) PUBLIC FINANCE. *Mr. Tate.*

A general consideration of American public expenditures, revenues, and fiscal administration.

435. (POLITICAL SCIENCE) STATE AND LOCAL PUBLIC FINANCE. Prerequisite: Economics 434. *The Staff.*

Revenues, expenditures, and fiscal administration of Georgia and its political subdivisions; fiscal comparison of Georgia with other states; and an analysis of inter-governmental tax relationships.

436. BUSINESS CYCLES. Prerequisite: Economics 312. *Mr. Green.*

Economic and social significance of business fluctuations; causes; methods and theories of forecasting; measures for controlling cycles.

437. COMPARATIVE ECONOMIC SYSTEMS. *Mr. Wood.*

Analysis and appraisal of the theories underlying economic systems; proposed and existing schemes with respect to the maintenance of full employment, distribution of income, and encouragement of progress.

441. (POLITICAL SCIENCE) PRINCIPLES OF PUBLIC ADMINISTRATION. *Mr. Hughes.*

General principles and problems of administrative organization, relationships and controls in the United States; personnel; financial administrative law; the growth and significance of administrative legislation and adjudication; influence of political and social beliefs, legislatures and pressure groups.

442. (POLITICAL SCIENCE) PUBLIC PERSONNEL ADMINISTRATION. *Mr. Hughes.*

Procedures, policies, and problems of governmental personnel administration; field trips and field studies of governmental agencies give the student firsthand knowledge of governmental personnel administration.

443. (POLITICAL SCIENCE) PUBLIC FINANCE ADMINISTRATION. *Mr. Hughes.*

Activities involved in the collection, custody, and expenditure of public revenue; the assessment and collection of taxes; public borrowing and debt administration; preparation and enactment of the budget; financial accountability and the audit.

444. (POLITICAL SCIENCE) GOVERNMENT AND BUSINESS. *Mr. Smith.*

Economic aspects of business regulation by the government; regulatory developments and methods in the United States; loans and subsidies; fact-finding agencies; government-owned corporations.

450. MONETARY POLICY. Prerequisite: Economics 326. *Mr. Waller.*

Advanced treatment of problems introduced in Economics 326.

455. CONTEMPORARY ECONOMIC PROBLEMS. *Mr. Wood.*

Application of economic theory to certain problems of contemporary economic life such as monopoly, business cycles, tariffs, inflationary influences, industrial conflict, etc.

465. **MARKETING RESEARCH AND ANALYSIS.** Prerequisite: Economics 360. *Mr. Troelston.*
 Scientific method in the construction of general marketing research studies; the solution of specific distribution problems; qualitative market analyses; market trends; data collection, tabulation, and interpretation.
466. **ECONOMICS OF CONSUMPTION.** *Mr. Troelston.*
 Economics of the consumer market; the process of consumption; position and responsibilities of the consumer; desirable controls of consumption.
475. **ECONOMICS OF TRANSPORTATION.** *Mr. Smith.*
 Study of the economic principles of transportation with special emphasis on the history and regulations of railroads.
 Majors in Aeronautical Administration will be required to complete additional assignments in air transportation.
480. **INTERNATIONAL TRADE AND FINANCE.** *Mr. Dince.*
 Economic importance and problems of international trade; exchange rates and monetary standards; tariffs and other trade barriers; debts; the position of international trade in the post-war world.
487. **THE COMMODITY EXCHANGE.** Prerequisite: Economics 360. *Mr. Troelston.*
 Development of the exchange; organizational and general operation; commodities commonly traded; hedging; values; governmental regulations and controls.
488. **THE SECURITIES MARKET.** *Mr. Davids.*
 Organizations and functions of the New York Stock Exchange; types of transactions; types of traders; brokerage houses; speculation; relation of business cycles to stock prices; forecasting.
489. **THE LABOR MOVEMENT.** Prerequisite: Economics 386. *Mr. Segrest.*
 Historical background of modern industrial relations; economics, social, and political forces contributing to the current problems in labor economics.
490. **LABOR LEGISLATION.** Prerequisite: Economics 386. *Mr. Beadles.*
 State and federal legislation in the field of industrial relations.
491. **COLLECTIVE BARGAINING.** Prerequisite: Economics 386. *Mr. Wood.*
 Historical and legal framework of the bargaining process; structure of collective bargaining, including bargaining unit, participants, negotiations; basic issues and major problems; economic implications of collective bargaining.
492. **(POLITICAL SCIENCE) AMERICAN ADMINISTRATIVE LAW.** *Mr. Saye.*
 Legal principles and practical doctrines involved in work of administrative tribunals (the Interstate Commerce Commission, Federal Trade Commission, etc.) vested with quasi-legislative or quasi-judicial powers or both.
494. **EUROPEAN ECONOMIC HISTORY.** *The Staff.*
 Development of the economic aspects of civilization in medieval and modern times; evolution of economic institutions; historical background of present economic problems.
533. **CREDITS AND COLLECTIONS.** Prerequisite: Economics 330. *Mr. Wright.*
 An analysis of the principles underlying the extension of credit to finance the transfer of goods and services.
577. **PUBLIC UTILITIES.** *Mr. Smith.*
 Development characteristics, rights and duties of public utilities; problems of regulation and rates; service; securities; holding companies in the electric utilities; activities of the Federal government in the power field.
585. **PERSONNEL ADMINISTRATION.** Prerequisites: Psychology 101 and Economics 386. *Mr. Green and Mr. Tate.*
 Principles and practices in the field of the administration of human relations in industry; scientific techniques and devices in the development of a well-rounded personnel program.
591. **APPLIED ECONOMIC STATISTICS.** Prerequisite: Economics 312 or Mathematics 356. *Mr. Spencer.*
 Various statistical methods and techniques applied to economic fields such as marketing, advertising, labor management, production, banking, investments.
760. **SEMINAR IN MARKETING AND SALES ADMINISTRATION.** *Mr. Troelston.*
 Sales and marketing problems with emphasis upon current developments in wholesale and retail agencies. Permission of the instructor required.
792. **APPLIED BUSINESS RESEARCH.** *Mr. Keeling.*
 Applications of business research results in the determination of policy and in the planning of operations of business enterprises.

807. THE HISTORY OF ECONOMIC THOUGHT. *Mr. Smith.*

The evolution of the important principles of economics with emphasis on the history of the theories of value and distribution. Permission of the instructor required.

844. SEMINAR IN GOVERNMENT AND BUSINESS. *Mr. Smith.*

Current issues in the field of governments' relation to business and particular emphasis on problems associated with monopoly and competition.

850. RESEARCH IN MONEY AND BANKING. *Mr. Davids.*

Individual research in money and banking. Permission of the instructor required.

886. PROBLEMS IN INDUSTRIAL RELATIONS. *Mr. Segrest.*

Current problems in industrial relations with particular emphasis on the current status of unionism in the United States in terms of the effects of union organization, policies, and methods upon employer-employee relations.

890. INDEX NUMBERS. *Mr. Spencer.*

Index number construction and interpretation; a survey of the most important index numbers currently used in economic statistics.

891. RESEARCH IN APPLIED ECONOMIC STATISTICS. *Mr. Spencer.*

Individual research in the application of statistical methods to economic problems. Permission of the instructor required.

892. TIME SERIES ANALYSIS. *Mr. Spencer.*

Statistical time series analysis and its application to economic analysis.

893. ECONOMIC SEMINAR. *The Staff.*

A research problem in the field of major concentration under personal supervision of the major professor. Permission of the instructor required.

894. ECONOMICS SEMINAR. *The Staff.*

A continuation of Economics 893.

ENGLISH

(Robert E. Park Hall, North Campus)

Head: Everett. Staff: Appleby, *Barnett, Beaumont, Biswanger, Blais, Brown, Cate, Davidson, Dumas, Eidson, Hammond, Hart, Herron, Hutcherson, Lindemann, Longshore, McCartney, McCullough, McWhorter, Magill, Marshall, Michael, Mizelle, Montgomery, Moore, Olney, Parks, *Rushmore, Talmadge, Tate, Thurman, Tison, Wall, *Waller, Wallis, West.

101, 102. COMPOSITION. 10 hours (5 hours a quarter). *The Staff.*

First quarter: grammar, punctuation, mechanics, diction, and sentences structure. Second quarter: readings from English and American literature. Themes and parallel reading required throughout the course. Conferences on themes. An average of C (73) is required in these courses.

H-105. COMPOSITION AND LITERATURE (HONORS). *Mr. Beaumont, Mr. McWhorter and Mr. Rushmore.*

For honors students, this course replaces English 101 and 102. Reading and writing will be given equal stress. Literary works will be studied as specimens of effective writing, and students will be expected to apply the principles and techniques thus learned in their own writing. Not open to students who have had both English 101 and 102.

121, 122. WESTERN WORLD LITERATURE. 10 hours (5 hours a quarter). Prerequisite: English 101, 102. *The Staff.*

A survey of Western World literature from Homer to the twentieth century.

H-125, H-126. WESTERN WORLD LITERATURE (HONORS). 10 hours (5 hours a quarter). Prerequisite: English 101 and 102 or English H-105. *Mr. Brown, Mr. Everett, Mr. Lindemann and Mr. West.*

Available for honors students only. Reading and discussion of masterpieces of Occidental literature from Homer to Thomas Mann. Complete works will be read, and there will be individual papers and reports. H-125 is not open to students who have had English 121, and H-126 is not open to students who have had English 122.

303. ENGLISH LITERATURE TO 1800. *Mr. Wall.*

A general course in English literature designed to give any student a broad knowledge of the subject. English 303 and English 304 together offer a full survey of English literature, but either or both of these courses may be taken.

*On leave.

304. ENGLISH LITERATURE AFTER 1800. *Mr. Wall.*
Continuation of English 203.
305. LYRIC POETRY. *Mr. Davidson.*
A study of the types, techniques, and interpretations of poems selected from English and American literature.
310. ADVANCED GRAMMAR AND SYNTAX. This course is recommended to students interested in teaching or in writing. *Miss Dumas.*
343. MODERN DRAMA. *Mr. Olney.*
360. ADVANCED COMPOSITION. *Mr. Talmadge.*
Factual writing. Admission by consent of the instructor.
361. THE SHORT STORY. *Mr. Talmadge.*
A history of the short story as a literary form.
370. CREATIVE WRITING. Prerequisite: English 360. *Mr. Talmadge.*
Emphasis upon the short story and the personal essay. Admission by consent of the instructor.
375. THE NOVEL. *Mr. Parks.*
A study of the outstanding eighteenth and nineteenth century English and American novels.
380. THE MODERN NOVEL. *Mr. Rushmore.*
A study of the modern novel in England and America.
400. OLD ENGLISH. *Mr. Brown.*
A study of the language and literature of England before the Norman Conquest, with reading of selected texts.
402. CHAUCER. *Mr. Brown.*
A study of the *Canterbury Tales*, *Troilus and Criseyde*, and minor poems.
403. MILTON. *Mr. Davidson.*
A study of the work and times of John Milton.
404. THE AGE OF POPE. *Mr. Davidson.*
A study of the works of Pope, Defoe, Addison, Steele, and Swift.
405. THE AGE OF JOHNSON. *Miss Dumas.*
A study of the works of Samuel Johnson and his most important contemporaries.
406. THE ROMANTIC MOVEMENT. *Mr. Olney.*
A study of the major English poets of the early nineteenth century.
407. THE ENGLISH DRAMA TO 1641. *Mr. Tison.*
A study of the English drama (exclusive of Shakespeare) from the beginning to the closing of the theatres.
408. RESTORATION AND EIGHTEENTH CENTURY ENGLISH DRAMA. *Mr. Biswanger.*
The history of the English drama in the late seventeenth and the eighteenth centuries.
409. ELIZABETHAN POETRY. *Mr. West.*
A study of the Elizabethan non-dramatic poets from Spenser to Donne.
410. HISTORY OF THE ENGLISH LANGUAGE. *Mr. Brown.*
The development of English from its beginning to the present time.
412. LITERATURE OF THE SEVENTEENTH CENTURY. *Mr. West.*
A study of the Metaphysical and Cavalier writers.
420. AMERICAN LITERATURE TO 1865. *Mr. Eidson, Mr. Moore, and Mr. Parks.*
A survey of literary works and the main intellectual currents.
422. AMERICAN LITERATURE AFTER 1865. *Mr. Eidson, Mr. Moore, and Mr. Parks.*
425. ROMANTICISM IN AMERICAN LITERATURE. *Mr. Eidson, Mr. Moore, and Mr. Parks.*
A study of the works of Emerson, Whitman, and Hawthorne.
427. REALISM IN AMERICAN LITERATURE. *Mr. Eidson, Mr. Moore, and Mr. Parks.* (Not offered 1961-62)
A study of the works of Mark Twain, Henry James, and William Dean Howells.

429. SOUTHERN LITERATURE. *Mr. Eidson, Mr. Moore, and Mr. Parks.*
A survey of the intellectual thought and literary achievement in the South from 1610 to the present time, with emphasis upon Poe, Timrod, and Lanier.
440. SHAKESPEARE. Part I. *Mr. Olney.*
Richard III; Julius Caesar; Antony and Cleopatra; A Midsummer Night's Dream; The Merchant of Venice; As You Like It; Romeo and Juliet; Hamlet.
441. SHAKESPEARE. Part II. *Mr. West.*
Henry IV (1); Henry V; Coriolanus; Twelfth Night; The Tempest; Measure for Measure; The Winter's Tale; Othello; King Lear; Macbeth.
442. EARLY VICTORIAN LITERATURE. *Mr. Everett.*
A study of the works of Carlyle, Tennyson, and Browning.
451. MUSIC AND LITERATURE. *Mr. Brown.*
A comparative study of the forms, relationships, and aesthetics of music and literature. Admission by consent of the instructor.
452. LATE VICTORIAN LITERATURE. *Mr. Everett.*
A study of the works of Arnold, Ruskin, and Swinburne.
801. BEOWULF. *Mr. Brown.*
A study of the text, with consideration of linguistics, the epic tradition, and Anglo-Saxon civilization.
803. MILTON. *Mr. West.*
A study of the major works of John Milton with particular attention to their intellectual background.
806. SEMINAR IN ENGLISH ROMANTIC LITERATURE. *Mr. Everett.*
The life and works of Lord Byron.
808. MIDDLE ENGLISH. *Mr. Brown.*
Language and literature of England from 1150 to 1400, with reading of selected texts representing the various periods and dialects.
820. SEMINAR IN AMERICAN LITERATURE TO 1865. *Mr. Eidson.*
(Not offered 1961-1962).
A research course in special problems.
822. SEMINAR IN AMERICAN LITERATURE AFTER 1865. *Mr. Parks.*
A research course in special problems.
829. SEMINAR IN SOUTHERN LITERATURE. *Mr. Parks.*
A research course in special problems.
830. LITERARY CRITICISM. *Mr. Parks.*
(Not offered 1961-1962).
A study of the theory and principles of literary criticism from Aristotle through T. S. Eliot.
840. SEMINAR IN ELIZABETHAN DRAMA. *Mr. West.*
A research course in special problems, with major emphasis on Shakespeare.
842. SEMINAR IN VICTORIAN LITERATURE. *Mr. Everett.*
A research course in special problems.

ENTOMOLOGY*

(Biological Sciences Building, South Campus)

Head: Lund. Staff: Hunter, Johnson, Jordan, Paul, Robertson.

Students registered in the Franklin College of Arts and Sciences may, with the permission of the Head of the Department, credit the following zoology courses toward a major in Entomology: Zoology 353, Zoology 401, Zoology 390, and Zoology 454.

373. GENERAL ENTOMOLOGY. Three lectures and two double laboratory periods. Prerequisites: Two courses in plant or animal biology. *Mr. Paul.*

A field and laboratory study of the structure, biology, and classification of insects and of their general importance and significance to man.

374. ECONOMIC ENTOMOLOGY. Three lectures and two double laboratory periods. Prerequisites: Two courses in plant or animal biology. *Mr. Paul.*

A course designed to provide the practical information essential for the recognition and control of the insect pests most commonly encountered in the field, orchard, garden, woodlot, and home.

*Students may be held responsible for breakage in laboratory courses.

375. FOREST ENTOMOLOGY. Three lectures and two double laboratory periods. Prerequisites: Two courses in plant or animal biology. *Mr. Lund.*

A study of the biology, identification, and control of the species of insects destructive to American forests.

376. MEDICAL ENTOMOLOGY. Three lectures and two double laboratory periods. Prerequisites: Two courses in plant or animal biology. *Mr. Lund.*

A study of the biology, identification, and control of the species of insects and related arthropods of particular importance in the cause or transmission of diseases of man and the lower animals.

382. FOREST PROTECTION: ENTOMOLOGY. 3 hours. Three double laboratory periods. Prerequisites: Two courses in plant or animal biology. *Mr. Lund.*

A study of the biology, identification, and control of the species of insects destructive to American forests.

474. ADVANCED ECONOMIC ENTOMOLOGY. Three lectures and two double laboratory periods. Prerequisite: one of the following entomology courses: 373, 374, 375, or 376. For graduate credit, one additional senior division course is required. *Mr. Paul.*

An advanced treatment of economic entomology including actual field work in experimental methods, biological control, and the insect transmission of plant diseases.

477. CHEMISTRY AND TOXICOLOGY OF INSECTICIDES AND FUNGICIDES. Three lectures and two double laboratory periods. Prerequisites: one course in organic chemistry and one of the following entomology courses: 373, 374, 375, or 376. *Mr. Paul.*

A study of the physical and chemical behavior of insecticides and accessory materials and of their toxicological effects upon plants and animals.

480. INTRODUCTORY ACAROLOGY. Three lectures and two double laboratory periods. Prerequisites: one of the following entomology courses: 373, 374, 375, 376. For graduate credit, one additional senior division course is required. *Mr. Hunter.*

The structure, classification, and biology of mites and the control of those forms known to be of importance to the health and welfare of man.

573. INSECTS IN FIELD AND STREAM. Two lectures and three double laboratory periods. Prerequisite: Two elementary courses in biological science and two courses numbered 300 or above in biological science or education. *Mr. Paul.*

A study of insects and related forms found on land and in water; their identification and life habits, and the control of noxious forms, with emphasis on the use of these forms in the teaching of high school biology.

805. INSECT PARASITES. Prerequisites: Entomology 373, 374, 375, or 376 and one additional senior division course. *Mr. Lund.*

An advanced study of the structure, life-histories, and identification of those insects and related arthropods which cause or transmit disease in man or lower animals.

871. TAXONOMY OF INSECT LARVAE. Two lectures and three double laboratory periods. Prerequisites: Any one of the following: Entomology 373, 374, 375, or 376 and one additional senior division course. *Mr. Lund.* Offered alternate years. (Not offered in 1961-62.)

A study of the classification, biology, and phylogenetic and economic significance of insect larvae.

873. ADVANCED GENERAL ENTOMOLOGY. Three lectures and two double laboratory periods. Prerequisites: Entomology 373 and one additional senior division course. *Mr. Lund.* (Offered alternate years.)

An advanced treatment of general entomology including biological nomenclature, insect evolution and classification, sensory physiology, and other special topics.

900. PROBLEMS IN ENTOMOLOGY. *The Staff.*

In this course students work intensively on problems in approved fields of entomology.

FINE ARTS

(Fine Arts Building, North Campus)

Given under the general direction of the chairman of the Division of Fine Arts.

300. MUSIC AND THE VISUAL ARTS. No credit will be allowed for Fine Arts 300 when credit is already shown for Art 317 and Music 343. *Mr. Dodd, Mr. Gerschevski, and Staff.*

Nature and materials of the visual arts in their relation to man, with emphasis on the influence of art products in contemporary living and thinking. A field of study comprising painting, sculpture, architecture, graphic arts, arts of industry and commerce. Also a study of works of outstanding figures in music taken chronologically.

FRENCH

(See Modern Foreign Languages)

GEOGRAPHY AND GEOLOGY*

(Mathematics, Geography and Geology Building, South Campus)

Head: Prunty. Staff: Barnes, Henry, Langley, Northam, Poole, Power, Salotti, Schlee, Shear, Woodruff.

HUMAN AND REGIONAL GEOGRAPHY

Note: A major selected primarily from the following courses leads to an A.B. degree.

101. WORLD HUMAN GEOGRAPHY. *Mr. Barnes, Mr. Langley, and the Staff.*
A survey of world human geography, emphasizing population characteristics, environmental features, distribution of economic activities and geopolitical problems within the major geographical regions. Consideration of adequacy of resources to support expanding world populations.

341. PROBLEMS IN POLITICAL GEOGRAPHY. Prerequisites: Geography 101 or History 111, 112. *Mr. Langley.*

A summary of geographical influences upon the nature and history of states and nations. Primary emphasis upon geopolitical conditioning of international affairs since World War I. Analysis of current strategic positions of U. S. and U.S.S.R.

358. ECONOMIC GEOGRAPHY. (Raw Materials). Four lectures and one laboratory. Prerequisite: Geography 101 or Economics 105 or Geology 125. *Mr. Northam or Mr. Prunty.*

Distribution and reasons for economic occurrence of agricultural, forest, and mineral raw materials; production and transportation systems and occupancy patterns related thereto. Selected theories in spatial and area development of resources. Resource potentials for the future in light of expanding populations. Emphasis on North America and Europe.

436. GEOGRAPHY OF THE SOUTH. Prerequisite: Ten hours in courses from one of the following departments: Geography and Geology, History or Economics. *Mr. Prunty.*

Geographical appraisal of the Southeastern States, including physical and human resources, settlement and population, agriculture, the extractive industries, transportation, and present urban settlements. Present human-use regions of the South. Current progress and major problems in Southeastern development; suggests geographical approaches to their solution.

441. CARIBBEAN AMERICA. Prerequisite: Ten hours in Geography and Geology, or an equivalent background in either Spanish or History. *Mr. Northam.*

A regional analysis of the geography of Caribbean Area with emphasis upon the cultural and economic ties of the American South with the Caribbean area.

*Students will be held responsible for breakage in laboratory courses.

442. SOUTH AMERICA. Prerequisite: Ten hours in Geography and Geology, or an equivalent background in either Spanish or History. *Mr. Barnes.*

A regional analysis of the geography of equatorial and southern South America including treatment of physical, cultural, and economic characteristics of the several regions within the South American nations. Stress upon prospects for expansion of settlements, developments of resources and growth of industries.

444. EUROPE AND THE MEDITERRANEAN. Prerequisite: Ten hours in Geography and Geology, or an equivalent background in History or Modern Languages. *Mr. Langley.*

A regional analysis of the human geography of peninsular, western, and central Europe, and the Mediterranean Basin, emphasizing physical, ethnographic, and economic factors affecting the resource utilization and political problems of the several nations.

446. GEOGRAPHY OF THE SOVIET UNION. Prerequisite: Ten hours in Geography and Geology, or an equivalent background in Modern Languages or History. *Mr. Langley.*

A regional analysis of the physical, ethnographic and economic geography of the U.S.S.R., designed to evaluate the industrial and political strength of the Soviet Union.

448. GEOGRAPHY OF SOUTHEAST ASIA. Prerequisite: Ten hours in Geography and Geology or an equivalent background in History. *Mr. Poole.*

Regional analysis of cultural and physical geography of Southeast Asia including the coastal island groups. Analysis of land utilization, settlement, raw material, population characteristics and distributions as they relate to economic and political problems and potentials of the several nations. Emphasis on Japan, China, India, Pakistan, Philippines, and Indonesia.

459. NORTH AMERICAN URBAN GEOGRAPHY. Prerequisite: Two courses from Geography 350, 358, or Economics 133. *Mr. Northam.*

Analysis of urban land occupancy and its morphological-functional aspects. Introductory location theory in urban areas. Procedures in geographical analysis of agglomerated settlements. Emphasis on southern and eastern U. S. urban settlements.

460. NORTH AMERICAN INDUSTRIAL GEOGRAPHY. Prerequisite: Geography 358. *Mr. Northam or Mr. Prunty.*

Spatial organization of manufacturing activities. Effects of processing procedures, raw materials sources and types, transportation, and relative areal advantages in locations of industries. Industrial occupancy and functional types. Industrial location theories and their applications. Comparisons with European industrial developments; particular emphasis on the South.

461. NORTH AMERICAN AGRICULTURAL GEOGRAPHY. Prerequisite: Ten hours from Geography 350, 358, 459, 460; or ten hours in 300-level courses from Botany or Agronomy approved by instructor. *Mr. Prunty.*

Regional analysis of climate, soils, landform bases of American agriculture. Origins and dispersals of cultivated plants and livestock; American systems of rural land use and settlement in their regional settings. Contemporary problems in geographical analysis of American agriculture.

466. FIELD PROBLEMS IN URBAN GEOGRAPHY. 3 hours. Three laboratory periods. Prerequisite: Geography 350 and 459. *Mr. Northam.*

Field procedures in analysis of spatial, morphological, and functional traits of urban areas. Individual field problems to achieve mastery of the foregoing.

533. GEOGRAPHY OF THE COMMUNITY. Prerequisite: Ten hours from the following courses: Geography 310 or 358, Sociology 431 or 435. *Mr. Barnes.*

Analysis of structure and primary functional patterns of small and medium-sized American towns. Area differences in morphology of such settlements. Field techniques in assessment of community morphology constitute about half the course. This course intended primarily for professional teachers and school administrators. Offered summer quarter only.

801. SEMINAR IN GEOGRAPHIC THOUGHT AND METHODS. 3 hours. *Mr. Prunty and the Staff.*

Historical development of geographical philosophy and methods; contemporary methodological concepts and problems. Required for all graduate majors.

802. QUANTITATIVE METHODS IN AREA ANALYSIS. 3 hours. *Mr. Barnes and the Staff.*

Cartographic and other quantitative procedures in analysis of occupancy, settlement, and physical land types. Procedures and contemporary problems. Required for all graduate majors.

803. SEMINAR IN NORTH AMERICAN LAND OCCUPANCE. 3 hours. *Mr. Prunty*.

Problems in North American rural land occupance and settlement geography.

837. TOPICS IN THE GEOGRAPHY OF THE SOUTH. 3 hours. *Mr. Prunty*.

Selected topics in the geography of the American South, with emphasis upon land occupation types, landforms, and raw materials production. Topics and areas of detailed study may vary.

845. TOPICS IN THE GEOGRAPHY OF EUROPE. 3 hours. *Mr. Langley*.

Selected problems in the physical and cultural geography of Europe. Topics and areas of study may vary.

860. SEMINAR IN URBAN AND INDUSTRIAL GEOGRAPHY. 3 hours. Prerequisite: Geography 459. *Mr. Northam*.

Contemporary literature, and problems of a morphological, spatial, or functional nature, related to urbanized areas. Current problems in industrial location theory and research.

PHYSICAL GEOGRAPHY

A major selected primarily from the following courses may lead to either the A.B. or B.S. degree.

104. EARTH SCIENCE SURVEY. *Mr. Poole and The Staff*.

A survey of the fundamental concepts and contributions selected from the fields of physical geography (physiography, climatology).

121. INTRODUCTION TO LANDFORMS. Three lectures and two laboratory periods. *Mr. Poole or Mr. Woodruff*.

A systematic analysis of land-forming processes, physiographic forms, and their distributions. Effects of wind, ice, running water on landforms. Employment of topographic maps and air photos in geomorphic analysis. Emphasis on North American physiographic regions.

122. INTRODUCTORY WEATHER AND CLIMATE. Three lecture and two laboratory periods. *Mr. Shear or Mr. Barnes*.

Components of weather, weather processes, and their measurement. Climatic elements and control factors; distribution and classification of climatic types over the earth's surface.

306. SYNOTIC AND OBSERVATIONAL METEOROLOGY. Three laboratory periods. Prerequisite: Geography 122. *Mr. Shear*.

Study and practice in meteorological observational procedures. Analysis of upper air and surface maps; the prognosis and forecasting problem.

310. CONSERVATION OF NATURAL RESOURCES. Prerequisite: Geography 101 or 121. *Mr. Northam*.

Resource problems and related conservation techniques in the United States. Particular emphasis placed upon resource conservation problems of the Southeastern States.

350. CARTOGRAPHY AND GRAPHICS. Five laboratory periods. *Mr. Barnes*.

Theory and practice in map and chart design and construction. Emphasis on compilation techniques, use of source data for map construction, application of aerial photos to mapping problems, graphic presentation of statistical materials. Includes practice in use of all basic cartographic instruments, construction of basic types of geographical, geological, and statistical maps. Intended for the student who has had no training in mapping procedures.

391. DIRECTED MAP AND PHOTOGRAMMETRIC COMPILATION. 3 hours. Three laboratory periods. Prerequisite: Geography 350 or 420. *Mr. Barnes*.

Directed problems in compilation processes for map reproduction. Problems in projection, fitting, air photo scale and distortion control, field and statistical compilation, reproduction specifications. Utilization of primary map, field survey and air photo sources in compilation cartography.

401. ADVANCED CLIMATOLOGY. Four lectures and one laboratory period. Ten hours in Geography including 122. *Mr. Shear*.

Intensive study of controlling factors of climate. Heat-balance, evapotranspiration, water-budget concepts. Koeppen classification system in detail. Regional analysis of climatic types and anomalies.

402. NORTH AMERICAN PHYSIOGRAPHY. Two lecture and three laboratory periods. Prerequisites: Geography 121 plus either Geography 122 or Geology 125. *Mr. Woodruff.*

Detailed analysis of North American physiographic provinces, their subdivisions, and of the geomorphic features and processes at work therein. Analysis via topographic maps, air photos, field work, semi-independent reports.

404. (FORESTRY) WATERSHED HYDROLOGY. 3 hours. Two lectures and one laboratory period. Prerequisite: Physics 127, 128, and Geography 122. *Mr. Shear.*

Measurement and regulations of the aggregate resources of a drainage basin; control of erosion, streamflow and floods. Role of water as unifying factor in physical landscapes. Required fieldtrips.

420. USE AND INTERPRETATION OF AERIAL PHOTOGRAPHS. Five laboratory periods. Prerequisites: Four or more quarters of forestry or agriculture, or Geography 350 and one other 300 level course, or permission of the instructor. *Mr. Barnes* or *Mr. Poole.*

Theory and procedures in use of aerial photos for mapping, planning, terrain and contour identification, forest and vegetation identification. Procedures in correction of photo errors, for preparation of base-maps. Training in use of standard photogrammetric instruments, and in planning of photo-reconnaissance of sample areas.

422. ADVANCED PHOTOGRAMMETRY LABORATORY. Five laboratory periods. Prerequisite: Geography 420 or equivalent. *Mr. Barnes.*

Laboratory instruction on individualized photogrammetric problems related to the major interests of the students. Mastery of advanced photogrammetric instruments required.

425. FIELD METHODS IN GEOGRAPHY. 3 hours. (Not open to students who take Geology 425). Prerequisites: 15 hours in Geography and Geology courses numbered above 200 including Geography 350, plus at least a B average in junior-senior major courses. *Mr. Woodruff.*

Methods in measurements, observation, recording, and synthesis of field data. Field analysis of all features in one small type-area required, including completed maps and written report in which recorded data are correlated and synthesized.

429. SPECIAL PROBLEMS IN AREA ANALYSIS. 3 hours. Prerequisite: Fifteen hours in courses numbered above 300 in Geography and Geology. Approval of instructor concerned, and head of department, must be obtained for admission to this course *prior* to registration. *Mr. Prunty* and the Staff.

476. VEGETATION IN NORTH AMERICA. (Botany 476). *Mr. Plummer.*

812. PROBLEMS IN CLIMATE AND WATER RESOURCES. 3 hours. Prerequisite: Geography 401 or 404. *Mr. Shear.*

Advanced problems in climatology and water resources. Topics and areas involved may vary.

816. PROBLEMS IN GEOMORPHOLOGY. 3 hours. Prerequisite: Geography 402. *Mr. Woodruff.*

Advanced problems in geomorphology—physiography. Topics and areas may vary.

821. ADVANCED PROBLEMS IN CARTOGRAPHY. Two lecture and three laboratory periods. Prerequisite: Geography 350 or 420, or equivalent background, plus other advanced course work in either Geography or Geology. *Mr. Barnes.*

Cartographic problems in projections, design, reproduction. Application of cartographic processes to regional analysis. Problems in photogrammetric control in cartographic compilation. Selected current research problems in cartography, and photogrammetry.

PHYSICAL AND HISTORICAL GEOLOGY

A major selected primarily from the following courses may lead to either the A.B. or B.S. degree.

125. ELEMENTS OF GEOLOGY (PHYSICAL). Three lectures and two laboratory periods. *Mr. Power* or *Mr. Salotti*.

Fundamentals of physical geology, including origin and composition of the primary earth materials, agents of erosion, sedimentation, metamorphism, modes of occurrence of the common minerals, and analysis of the several common crustal structures.

126. ELEMENTS OF GEOLOGY (HISTORICAL). A continuation of Geology 125. Three lectures and two laboratory periods. *Mr. Henry* or *Mr. Schlee*.

Historical principles in geology, including floral, faunal, bio-geographic, and stratigraphic relationships of the several geologic epochs.

320. DETERMINATIVE MINERALOGY. 3 hours. Three laboratory periods. Prerequisites: Geology 125 and Chemistry 121-122. *Mr. Power* or *Mr. Salotti*.

Systematic identification and classification of minerals, their rock associations, modes of occurrence. Procedures in mineralogical analysis.

321. MINERALOGY AND CRYSTALLOGRAPHY. Two lecture and three laboratory periods. Prerequisites: Geology 125, Chemistry 121-122 and Mathematics 110. *Mr. Power* or *Mr. Salotti*.

Physical and chemical properties of minerals, their rock-associations, modes of occurrence, industrial uses. Properties of crystals, crystal systems and geometrical characteristics, abnormalities in mineral-crystal structure.

323. PETROLOGY. Two lecture and three laboratory periods. Prerequisite: Geology 321. *Mr. Power* or *Mr. Salotti*.

Origins of the sedimentary, igneous, and metamorphic rocks, modes of occurrence, chemical and physical changes to which rocks are subject. Systematic and descriptive analysis of rocks.

332. STRUCTURAL GEOLOGY. 3 hours. Three laboratory periods. Prerequisite: Geology 125. *Mr. Salotti*.

Framework of the earth's crust, and causes of its distortion. Analysis of flexures, faults, joints. Origin of mountains, continents, and oceans. Laboratory studies of geological maps and the deduction of earth forces, resulting in present rock attitudes.

358. THE MINERAL INDUSTRIES. (See Geography 358). *Mr. Prunty*.

402. NORTH AMERICAN PHYSIOGRAPHY. (See Geography 402). *Mr. Woodruff*.

403. INVERTEBRATE PALEONTOLOGY. Three lecture and two laboratory periods weekly. Prerequisite: Geology 126 and Zoology 226. *Mr. Henry*.

Study of fossil invertebrates, emphasizing relationships in anatomical structures of living and extinct types, analysis of the classifications, ecology, and geological history of all phyla of invertebrates. Laboratory problems emphasizing facility in stereomicroscopic analysis.

405. SEDIMENTATION AND STRATIGRAPHY. Two lecture and three laboratory periods. Prerequisites: Geology 321 and 323. *Mr. Henry* or *Mr. Schlee*.

Formation processes in the origin and distribution of sedimentary rocks. Physical and environmental conditions involved in transportation and deposition of sediments. Vertical sequences of lateral correlations in layered rocks. Methods in identification and correlation of typical stratigraphic associations; and of organic and structural constituents.

407. GEOLOGY OF THE SOUTHERN STATES. Prerequisite: Geology 405. Three lecture and two laboratory periods. *Mr. Schlee*.

Structural and stratigraphic relationships in southern geology analyzed in terms of distribution, lithology, and their economic implications.

408. OPTICAL MINERALOGY. 3 hours. Three laboratory periods weekly. Prerequisites: Geology 321 and 323. *Mr. Power*.

Principles of optical crystallography. Identification of minerals and rock textures via the polarizing microscope.

410. SEDIMENTARY PETROLOGY. 3 hours. Three laboratory periods weekly. Prerequisites: Geology 405 and 408. *Mr. Schlee*. (Not offered 1961-62.)

Megascope and microscopic petrologic examination of sedimentary rocks. Relationships of their properties to environments during deposition; post-depositional history of the rocks.

416. CRYSTALLOGRAPHY. 3 hours, three lecture periods. Prerequisites: Mathematics 110, Chemistry 121-122. *Mr. Power.*

Elements of symmetry, crystal projections, point groups, introduction to space groups, crystal systems, crystal notation.

417. DETERMINATIVE X-RAY CRYSTALLOGRAPHY. 3 hours. Three laboratory periods. Prerequisites: Physics 329 and Geology 416. *Mr. Power.*

Optical goniometry, determination of space group and cell dimensions from single crystal x-ray data; use of the x-ray diffractometer.

425. FIELD METHODS IN GEOLOGY. 3 hours. (Not open to students who take Geography 425). Prerequisites: Fifteen hours in Geography and Geology courses numbered above 200 including Geography 350, plus at least a B average in junior-senior major courses. *Mr. Salotti.*

Methods in measurements, observation, recording, and synthesis of field data. Field analysis of all features in one small type-area required, including completed maps and written reports in which recorded data are correlated and synthesized.

GERMAN

(See Modern Foreign Languages)

GREEK

(See Classics)

HISTORY

(LeConte Hall, North Campus)

Head: Parks. Staff: Coleman, Jones, McPherson, Montgomery, Murdoch, C. J. Smith, J. D. Smith, Tresp, Vinson.

All students receiving a degree from the University of Georgia are required to pass an examination on the history of the United States and Georgia (given at the beginning of the freshman year) unless credit is presented in (1) History 100 or (2) History 351-352 or (3) History 459 and one other course in American History.

100. SURVEY OF AMERICAN HISTORY. (Not open to students who have credit for either History 351 or History 352). *The Staff.*

This course is designed to satisfy the state law requiring that all students receiving degrees shall pass an examination on the history of the United States and of Georgia.

111-112. HISTORY OF WESTERN CIVILIZATION. 10 hours (5 hours in each of two quarters). *Mr. Coleman, Mr. Jones, Mr. McPherson, Mr. Murdoch, Mr. Tresp, Mr. C. J. Smith, and Mr. J. D. Smith.*

H-115, H-116. HISTORY OF WESTERN CIVILIZATION (HONORS). 10 hours. (5 hours in each of two quarters). *Mr. Jones, Mr. Murdoch, Mr. C. Jay Smith.*

H-115 is not available to students who have had 111, and H-116 is not available to students who have had 112. Taught in seminar fashion, with extensive outside reading in primary and secondary sources. Emphasis on social, economic, and intellectual history.

341-342. ENGLISH HISTORY. 10 hours (5 hours in each of two quarters, either quarter elective for final credit, though it is recommended that the whole course be taken). *Mr. McPherson.*

A survey of English history from the earliest times to the present. The division point in the two parts of this course is 1660. Especially recommended to pre-law students and those interested in English literature.

351-352. AMERICAN HISTORY. 10 hours (5 hours in each of two quarters). *Mr. Coleman, Mr. Montgomery, Mr. J. D. Smith, and Mr. Vinson.*

An interpretation of the development of the American nation from the age of discovery to the present.

405. CONSTITUTIONAL HISTORY OF THE UNITED STATES. *Mr. Montgomery.*

A study of how actual political and social conditions in American history have produced fundamental constitutional principles and practices.

410. HISTORY OF THE FAR EAST. *Mr. Murdoch.*

A survey of Oriental history with special emphasis on the roles of China and Japan in world affairs during the last two centuries.

420. NINETEENTH CENTURY EUROPE. *Mr. Jones.*

A history of Europe from 1814 to 1914. The main political, international, social, economic, cultural, and intellectual movements will be stressed.

425. ANCIENT HISTORY. *Mr. Jones.*

A survey of the ancient peoples and cultures of the Near East from earliest historical times through the Persian Empire.

430. EUROPE SINCE 1914. *Mr. C. J. Smith.*

Although some attention will be given to the great ideological controversies, the great revolutions, and the principal internal political, social, and economic developments of the major European states, this course will be concerned mainly with the two World Wars of 1914-18 and 1939-45, including their causes and their total impact upon Europe and the world. Approximately equal time will be devoted to the Age of the First World War, 1890-1923, and the Age of the Second World War, 1923-53, with some slight attention to events since 1953.

440. THE NEW SOUTH. *Mr. J. D. Smith.*

The South since the Reconstruction Period with emphasis upon social, economic, and political developments of the region.

451. THE AMERICAN COLONIES. *Mr. Coleman.*

A study of the early settlements made in North America by the English, French, Spanish, and Dutch; and how these European peoples made an American society by adapting old world forces to a new world environment. The course ends with the French and Indian War of 1763.

452. THE REVOLUTION AND THE RISE OF THE AMERICAN NATION. *Mr. Coleman.*

This course covers the period of American history from 1763 to 1800, which includes the Revolution, its causes and results; the Articles of Confederation; the writing and adoption of the Federal Constitution; and the administration of George Washington and John Adams.

453. FROM JEFFERSON TO THE CIVIL WAR. *Mr. Montgomery.*

This course covers the period in American history from the election of Thomas Jefferson in 1800 to the election of Abraham Lincoln in 1860. The development of the political, social, and economic factors is traced.

454. THE CIVIL WAR PERIOD OF AMERICAN HISTORY. *Mr. Parks.*

Special attention will be given to the civilian activities of the people, and to the problems of the Northern and Southern governments. Emphasis will be placed on the Confederacy. Only the major military campaigns will be considered.

455. THE RECONSTRUCTION PERIOD. *Mr. J. D. Smith.*

The reconstruction of the South along all lines as well as the remaking of the North will be taken up in this course. Beginnings will be found during the Civil War and the process will be continued to 1877.

456. RECENT AMERICAN HISTORY, 1877 to 1900. *Mr. J. D. Smith.*

Beginning with the presidency of Rutherford B. Hayes, this course will continue through the administration of William McKinley. Politics will be overshadowed by the social and economic picture.

457. THE ANTE-BELLUM SOUTH. *Mr. Parks.*

This course begins with the late colonial period, when settlers were pushing across the Southern Appalachians, and continues to the secession of the South. All aspects of Southern life and civilization will be dealt with.

458. HISTORY OF AMERICAN DIPLOMACY. *Mr. Vinson.*

A course designed to acquaint the student with the part the United States has played in its relations with other nations and to show the contributions it has made in promoting international morality and the ideals of American democracy abroad.

459. HISTORY OF GEORGIA. *Mr. Coleman.*

A study of Georgia from its first occupation by the Spaniards down to the present. A comprehensive discussion of all aspects of Georgia's development.

460. RUSSIA AND THE SOVIET UNION SINCE 1689. *Mr. C. J. Smith.*

A few of the early lectures will be devoted to Russian history prior to 1689, but most of the course will deal with Russia since the Petrine Reform. Approximately equal attention will be given to the following historical periods: 1689-1861, 1861-1921, and 1921 to the present. All aspects of Russian history—military—diplomatic, internal political, socio-economic, and cultural—will be considered.

461. FRANCE IN THE NINETEENTH AND TWENTIETH CENTURIES. *Mr. C. J. Smith.*

A survey of political, social, and economic developments in France and the French colonial empire since the fall of Napoleon I. Domestic events will be stressed rather than foreign or military affairs. As much attention as possible will be given to literary and other cultural developments.

462. GERMANY IN THE NINETEENTH AND TWENTIETH CENTURIES. *Mr. Tresp.*

A survey of political social and cultural developments in Germany since 1800. Domestic events will be stressed. Much attention will be given to literary and intellectual development.

465. THE INDUSTRIAL REVOLUTION IN GREAT BRITAIN, 1760-1870. *Mr. McPherson.*

The development of machines, power, and transportation during the century following 1760.

466. THE BRITISH EMPIRE AND COMMONWEALTH SINCE 1496. *Mr. Jones.*

A survey of British empire and commonwealth problems from the fifteenth century to the present.

473. THE TUDOR PERIOD OF ENGLISH HISTORY, 1585-1603. *Mr. McPherson.*

England's emergence as a modern state. Constitutional, economic, social and intellectual progress, her part in the Renaissance and Reformation, and her increasing international significance.

474. THE STUART PERIOD OF ENGLISH HISTORY, 1603-1714. *Mr. McPherson.*

England during the evolution of parliamentary supremacy; the early Stuarts, Civil War, Interregnum, Restoration, and Glorious Revolution. Although constitutional development is stressed, economic, social and intellectual aspects are included.

475. CONSTITUTIONAL HISTORY OF ENGLAND. *Mr. Jones, Mr. McPherson.*

A survey of the British constitutional developments from earliest times to the present, noting especially the growth of the common law, the court system, and the cabinet form of government. Recommended particularly for pre-law students.

476. THE AGE OF REASON AND THE FRENCH REVOLUTION, 1660-1815. *Mr. C. J. Smith.*

Western Europe in the eighteenth century, centered on France in the Age of Enlightenment, showing how the French Revolution of 1789-1804 was the climax of the gradual decay of one political, social, economic, and intellectual system, and replacement by another.

477. MEDIEVAL EUROPE. *Mr. Tresp.*

The history of Europe from the Fall of Rome to the Renaissance. The topics covered include the barbarian invasions, the growing power of the Church and its struggle with the temporal rulers, feudalism, the Crusades, as well as the social and literary development during the period.

478. THE RENAISSANCE AND REFORMATION. *Mr. Jones.*

A study of the transition from medieval conditions with emphasis on the social, economic and cultural changes of the Renaissance and the great religious upheaval of the sixteenth century.

491. THE LATIN-AMERICAN COLONIES. *Mr. Murdoch.*

This course begins with the voyages of discovery and covers the period of colonization and exploitation of the colonies by Spain and Portugal and ends with the Wars of Independence.

492. THE LATIN-AMERICAN REPUBLICS. *Mr. Murdoch.*

A course devoted to the study of the Latin-American Republics from the time of their independence to the present day.

493. THE CARIBBEAN AREA. *Mr. Murdoch.*

Conquest and settlement of the islands and Caribbean periphery by the Spanish, the intrusions by the French, Dutch, and English, and the more recent developments of the nineteenth and twentieth centuries.

494. A.B.C. POWERS. *Mr. Murdoch.*

The history of the political, economic, social and cultural development of Argentina, Brazil, and Chile since the struggle for independence with a brief summary of the late colonial period.

495. THE UNITED STATES IN WORLD AFFAIRS SINCE 1900. *Mr. Vinson.*

The emergence of the United States into an important place in world affairs at the beginning of the twentieth century, its development as a world power, and the part it played in World Wars I and II.

496. RECENT AMERICAN HISTORY, 1900-1950. *Mr. Vinson.*

Special emphasis will be placed on domestic politics and cultural developments. American diplomacy will be excluded.

800. HISTORICAL METHOD. *Mr. Parks.*

Required of graduate students majoring in history. This course will include methods of research and various aids, as well as the generally accepted usages in historical composition.

801. RESEARCH TOPICS IN AMERICAN HISTORY. *Members of the Department on the Graduate Faculty.*

Topics vary from year to year.

A. Concepts in American Diplomacy. *Mr. Vinson.*

B. Far Eastern Policy of the United States, 1898-1956. *Mr. Vinson.*

C. The New Deal. *Mr. Vinson.*

D. American Negro Slavery. *Mr. Parks.*

E. Military Campaigns of the Civil War. *Mr. Parks.*

802. AMERICAN HISTORIOGRAPHY. *Mr. Montgomery.*

A study of books and course materials on American history, historical aids, and American historians.

807. THE AGE OF JACKSON. *Mr. Montgomery.*

A study of the outstanding developments during the presidency of Andrew Jackson.

830. PROBLEMS IN EUROPEAN DIPLOMACY, 1890-1923. *Mr. C. J. Smith.*

Selected problems related to the origins of World War I, the diplomacy of the war and the Paris Peace Conference.

854. THE CONFEDERATE STATES OF AMERICA. *Mr. Parks.*

Problems of a government attempting to organize itself in the midst of war, with emphasis on the non-military aspects of its developments.

858. THE UNITED STATES BETWEEN TWO WARS, 1919-1939. *Mr. Vinson.*

Aims, methods, and accomplishments of the United States in foreign affairs in the period between the two World Wars.

859. COLONIAL GEORGIA. *Mr. Coleman.*

Colonial life and institutions in Georgia—a unique experiment in British colonial policies.

861. THE RUSSIAN REVOLUTION, 1905-1921. *Mr. C. J. Smith.*

The period in which the power in Russia was seized by the Communists.

870. THE AGE OF REFORM IN GREAT BRITAIN, 1815-1870. *Mr. Jones.*

British adjustments to the society created by the Industrial Revolution in which economic, social, and religious topics are taken up.

894. STUDIES IN LATIN AMERICAN HISTORY SINCE 1825. *Mr. Murdoch.*

History of some regional groupings of Latin American republics, as for instance the Caribbean, northern South American, Chile, and Argentina; and especially in the modern period, political, economic, social, and cultural problems.

MATHEMATICS

(Mathematics, Geography and Geology Building, South Campus)

Head: Fort. Staff: Anderson, Ball, Brahana, Cohen, Flanigen, Filgo, Fortson, Heath, Hill Horne, Huff, Hunter, Jewett, Stanley.

99. REMEDIAL COURSE IN ALGEBRA. 3 hours. *The Staff.*

A course designed for students who have had insufficient high school preparation to enter 100 or who for other reasons are deficient in their mathematics; devoted to drill on elementary and intermediate algebra; meets five times per week.

100. COLLEGE ALGEBRA. Prerequisite: at least two units of high school mathematics including one year of algebra. *The Staff.*

Review of some elementary algebra, quadratic equations, binomial theorem, progressions, complex numbers, theory of equations.

101. TRIGONOMETRY. Prerequisites: at least two units in high school mathematics, including one year of algebra. *The Staff.*

Trigonometry with some study of probability and statistics.

*On leave

H-120 (220). MODERN MATHEMATICAL ANALYSIS (HONORS). *The Staff.*

Algebraic concepts such as group, vector, matrix are studied. Analytic geometry is developed using vectors and matrices. Either credit for or exemption from Mathematics 100 and 101 is required. Not open to students who have had Mathematics 210.

210. ANALYTIC GEOMETRY. Prerequisite: Mathematics 100-101.

The straight line, circle, and conic sections.

235. FINITE MATHEMATICS. Prerequisite: Mathematics 100. *The Staff.*

An introduction to modern ideas in mathematics. Compound statements, sets and subsets, probability theory, vectors and matrices, applications to the social sciences.

254. CALCULUS. Prerequisite: Mathematics 210. *The Staff.*

A beginning course in differential calculus.

255. CALCULUS. A continuation of Mathematics 254. *The Staff.*

Integral calculus and other more advanced topics.

401. DIFFERENTIAL EQUATIONS. Prerequisite: Mathematics 255. *The Staff.*

Elementary differential equations with applications to geometry and physics.

402. VECTOR ANALYSIS. Prerequisite: Mathematics 255. *The Staff.*

A study of vector methods and their physical applications.

414. INTRODUCTION TO SET THEORY. Prerequisite: Mathematics 457 or consent of instructor. *Mr. Horne* or *Mr. Heath.*

Basic set theory, cardinal and ordinal numbers, axiom of choice and transfinite induction.

441. INTRODUCTION TO HIGHER ALGEBRA. Prerequisite: Mathematics 255. *The Staff.*

Theory of equations, polynomials, and determinants. Topics in modern algebra.

442. INTRODUCTION TO HIGHER ALGEBRA. Prerequisite: Mathematics 441. *The Staff.*

Matrices, invariants, theory of elimination. Additional topics in modern algebra.

454, 455. AN INTRODUCTION TO THE FOUNDATIONS OF ANALYSIS. 10 hours. Prerequisite: Mathematics 255. *The Staff.*

An accurate treatment of certain questions concerning continuity of a function, differentiation, Riemann integration, measure of linear point sets, and Lebesgue integration.

457. CALCULUS. Prerequisite: Mathematics 255. *The Staff.*

Improper integrals, infinite series, partial differentiation, multiple integrals.

458. ADVANCED CALCULUS. *The Staff.*

Elliptic integrals, line integrals and Green's Theorem, Fourier series, implicit functions, functional determinants.

461. ADVANCED ANALYTIC GEOMETRY. Prerequisite: Mathematics 255. *The Staff.*

A careful introduction to the analytic geometry of Euclidean space, beginning with elementary propositions on real vectors.

462. PROJECTIVE GEOMETRY. Prerequisite: Mathematics 461. *The Staff.*

The algebra of homogenous co-ordinates; duality; cross-ratio; classification of projective transformations; configurations of lines and points; the conic.

470. THEORY OF PROBABILITY. Prerequisite: Mathematics 255. *The Staff.*

A rigorous and precise treatment of basic probability theory.

502. BASIC IDEAS OF ARITHMETIC. Prerequisites: Mathematics 100; Education 103, 304, 335, 336 or two years of teaching experience. *Mr. Huff* and *Mr. Jewett.*

Designed to give elementary teachers a clear understanding of the fundamental ideas of arithmetic. The operation will be studied in several number systems.

510. FUNDAMENTAL IDEAS OF ALGEBRA. Prerequisite for Graduate credit: Mathematics 100-101 and either two mathematics courses numbered over 200 or two years of teaching high school algebra. Graduate credit will be allowed toward the Master of Education degree only. *Mr. Huff.*

A course designed to help teachers of high school algebra. It will stress those fundamental ideas, some of which are modern, which determine the structure of elementary algebra.

512. COLLEGE GEOMETRY. Prerequisite for Graduate credit: Mathematics 100-101 and two years of teaching high school geometry. Summer quarter only. *Mr. Brahana* and *Mr. Huff*.

A course in more advanced elementary geometry especially designed for prospective teachers of secondary school mathematics.

514. ELEMENTARY SET THEORY FOR TEACHERS. Prerequisite: Mathematics 255 or two years experience as a mathematics teacher. *Mr. Fort* and *Mr. Jewett*.

An elementary course in the theory of sets.

516. MODERN ALGEBRA FOR TEACHERS. Prerequisite: Mathematics 255 or two years of experience as a mathematics teacher. *Mr. Brahana* and *Mr. Jewett*.

The elementary theory of groups, rings, fields and linear algebra.

800, 801, 802. TOPICS IN ANALYSIS. 15 hours. *Mr. Horne* or *Mr. Jewett*.

Basic general topology; category theorems; Lebesgue integration; Banach spaces.

810, 811, 812. POINT SET THEORY. 15 hours. Prerequisite: Mathematics 654 or consent of the instructor. *Mr. Ball* or *Mr. Fort*.

An axiomatic treatment of certain aspects of point set theoretic analysis situs. A considerable degree of mathematical maturity is required.

821, 822, 823. ALGEBRAIC TOPOLOGY. 15 hours. *Mr. Brahana*.

Complexes, combinatory homology theory, function spaces, fiber spaces, covering spaces, homotopy groups, singular homology theory, exact couples, special sequences and applications.

843, 844, 845. MODERN ALGEBRA. 15 hours. Prerequisite: Mathematics 442. *Mr. Horne* or *Mr. Hunter*.

Domains, rings, fields, linear algebra.

863. ALGEBRAIC GEOMETRY. Prerequisite: Mathematics 462. *Mr. Huff* or *Mr. Brahana*.

Groups of transformations; invariants; geometrics, algebraic curves.

864. ALGEBRAIC CURVES. Prerequisite: Mathematics 863. *Mr. Huff* or *Mr. Brahana*.

Theory of curves over the field of complex numbers, singularity of curves, genus.

891. MATHEMATICS SEMINAR. 1 to 10 hours. Prerequisite: Undergraduate major in mathematics or equivalent and two quarters of graduate work in mathematics. *The Staff*.

A study by the seminar method of some phase of current research in mathematics.

930. THESIS IN MATHEMATICS. 5 to 50 hours. *The Graduate Staff*.

STATISTICS

200. APPLIED STATISTICS. 3 hours. Prerequisite: Mathematics 100. *The Staff*.

A basic elementary course in applied statistics.

356. STATISTICS. Prerequisite: Mathematics 100. *Mr. Cohen*.

An elementary course in statistics.

451. MATHEMATICAL STATISTICS. Prerequisites: Mathematics 255 and either 356 or 470. *Mr. Cohen*.

The mathematical theory of statistical methods, probability, and sampling distributions.

452. MATHEMATICAL STATISTICS. Prerequisite: Mathematics 451. *Mr. Cohen*.

Continuation of Mathematics 451.

456. ADVANCED STATISTICAL METHODS. 3 hours. Prerequisite: Mathematics 356. *Mr. Cohen.*

Methods studied in Mathematics 356 will be covered from an advanced viewpoint and in more detail. Advanced applications from the physical, biological, and social sciences.

460. STATISTICAL METHODS OF QUALITY CONTROL. Prerequisite: Mathematics 100, Mathematics 356 or Economics 312 for undergraduate credit; Mathematics 100, Mathematics 356 or Economics 312, and Business Administration 351 for graduate credit. Graduate credit is given toward the M.B.A. degree only. *Mr. Cohen.*

A review of fundamental statistical concepts including frequency distributions, averages, measures of dispersion, the construction and use of the Shewhart Control Charts, and techniques of acceptance sampling.

500. PROGRAMMING FOR ELECTRONIC COMPUTERS. 3 hours. Prerequisite: Mathematics 355 or consent of instructor. *The Staff.*

A basic course in programming procedures for electronic digital computers.

853. MATHEMATICAL STATISTICS. 3 hours. Prerequisite: Mathematics 458. *Mr. Cohen.*

Theory of estimation and testing hypotheses.

INSTITUTE OF STATISTICS

ALONZO CLIFFORD COHEN, JR., B.S., M.S., M.A., Ph.D., *Director*

JAMES LAVERN CARMON, B.S.A., M.S., Ph.D., *Associate Director*.

Staff: James Edward Greene, A.B., M.A., Ph.D., Milton Holmes Hodge, Jr., Ph.D., Harold Donald Morris, B.S., M.S., Ph.D., James Henry Bamping, B.S.F., M.S.F., James Camp Fortson, B.S.A., M.S., William Browning Keeling, B.B.A., M.A., Ph.D.

Courses offered by the Institute of Statistics are jointly listed with various departments and colleges of the University. Course descriptions will be found under the appropriate departmental listings. Consistent with the requirements of the graduate school as set forth on pages 104-106 of this Catalogue, candidates for the Master of Science and Master of Arts degrees may plan programs utilizing appropriate courses from those listed below. The thesis may be written in either applied or theoretical statistics.

STATISTICS LISTING	TITLE	JOINT LISTING	
Stat. 200	APPLIED STATISTICS	Math.	200
Stat. 312	ECONOMIC STATISTICS	Econ.	312
Stat. 356	INTRODUCTORY MATHEMATICAL STATISTICS	Math.	356
Stat. 418	EDUCATIONAL STATISTICS	Educ.	418
Stat. 423	PRINCIPLES OF EXPERIMENTAL METHODS	Agron.	423
Stat 451-2	INTERMEDIATE MATHEMATICAL STATISTICS	Math.	451-2
Stat. 456	ADVANCED STATISTICAL METHODS	Math.	456
Stat. 458	STATISTICS IN PSYCHOLOGICAL RESEARCH	Psych.	458
Stat. 460	STATISTICAL QUALITY CONTROL	Math.	460
Stat. 470	THEORY OF PROBABILITY	Math.	470
Stat. 500	PROGRAMMING FOR ELECTRONIC COMPUTERS	Math.	500
Stat. 510	SEMINAR IN SCIENTIFIC APPLICATIONS OF ELECTRONIC COMPUTERS	Math.	510
Stat. 520	PUNCHED CARD STATISTICS	Bus. Adm.	520
Stat. 591	APPLIED ECONOMIC STATISTICS	Econ.	591
Stat. 812	ADVANCED STATISTICS IN EDUCATION AND PSYCHOLOGY	Educ.	812
Stat. 826	STATISTICS IN ANIMAL SCIENCE	An. Husb.	826
Stat. 827	EXPERIMENTAL DESIGN	Agron.	827
Stat. 828	POPULATION GENETICS	An. Husb.	828
Stat. 853	TESTS OF HYPOTHESES	Math.	853
Stat. 891	RESEARCH IN APPLIED ECONOMIC STATISTICS	Econ.	891
Stat. 892	TIME SERIES ANALYSIS	Econ.	892
Stat. 930	THESIS	Math.	930

MICROBIOLOGY

(See Bacteriology)

MODERN FOREIGN LANGUAGES

Head: Jordan. Staff: Alciatore, Barrio, deGorog, Deinert, Downs, Jones, Levitsky, Lott, Peterson, Shedd, Smith, Williams, Womack.

**A student continuing a language taken in high school will be placed in the appropriate course on the basis of placement tests and other pertinent information.

No student may receive credit for any course which is a prerequisite to a course for which he has already received college credit. Exception may be made only by the head of the department.

A student who has satisfied the language requirement for his degree in one foreign language may count the courses taken during his junior and senior years in any other foreign language, regardless of course numbers, towards his senior division requirements.

FRENCH

101-102. ELEMENTARY FRENCH. 10 hours. *The Staff*.

(Students in this course may be required to spend a maximum of one hour a week outside of class in the language laboratory.)

A course designed to teach the student to pronounce French, to conduct simple conversations, and to read texts within a limited vocabulary range. Oral practice, emphasis upon sentence patterns, and the fundamental principles of structure.

103. INTERMEDIATE FRENCH. Prerequisite: French 102 or two entrance units in French. *The Staff*.

Intensive and extensive reading. Texts of moderate difficulty selected from well known authors. A rapid review of French grammar, irregular verbs, and idioms.

104. INTERMEDIATE FRENCH. Prerequisite: French 103 or its equivalent. *The Staff*.

Intensive and extensive reading of texts of marked literary merit. Pronunciation and conversation. Prepares students to read French in their specialized fields, to enter courses in French literature (201 or 202), or to enter courses in conversation and composition (106).

106. INTERMEDIATE FRENCH CONVERSATION AND COMPOSITION. Prerequisite: French 104. *Mr. deGorog* and *Mr. Jones*.

The emphasis is divided between conversation (three days a week) and composition (two days a week). The two phases of the course are correlated to promote the student's ability to express himself accurately whether in speaking or in writing French. A strongly suggested elective for anyone planning to major in French.

H-114 (214). INTERMEDIATE FRENCH (HONORS). Prerequisite: French 101 and 102 or two entrance units in French. *Mr. Downs*.

Honors students who do satisfactory work in this course will receive credit for French 103 and 104. It is not available for students who have had either French 103 or 104 or both. Grammatical construction is reviewed through reading, and there is intensive classroom work and extensive outside reading. French will be used as the language of the classroom.

Any course numbered below 200 is considered elementary and will not count toward the minimum of 20 hours required in one subject for a major in language.

201. AN INTRODUCTION TO THE STUDY OF FRENCH LITERATURE. Prerequisite: French 104. *Mr. Alciatore, Mr. Downs, Mr. Jones, or Mr. Jordan*.

A study of the main literary movements and major works of representative French writers from the twelfth through the seventeenth centuries.

202. AN INTRODUCTION TO THE STUDY OF FRENCH LITERATURE. Prerequisite: French 104. *Mr. Alciatore, Mr. Downs, Mr. Jones, or Mr. Jordan*.

A study of the main literary movements and major works of representative French writers of the eighteenth and nineteenth centuries.

**For the language requirements for various degrees in the College of Arts and Sciences see page 125.

French 201 and 202 are prerequisite to the following French courses except as indicated. French 202 may be taken either before or after French 201.

408. FRENCH LITERATURE OF THE RENAISSANCE. *Mr. Downs.*

Origins and development of the Renaissance in France, political and social influences, analysis of major works, reports, collateral readings, term paper.

430. THE ROMANTIC MOVEMENT IN FRANCE. *Mr. Downs.*

The origins of the movement in France with the principal emphasis upon Rousseau, Chateaubriand, and Madame de Staël. Foreign influences. The formation of the *cenacles*. Chief literary manifestoes. Analysis of representative works; Lamartine, Hugo, Vigny, Musset, and minor poets—poetry, novels, and drama. Collateral reading, reports, and a term paper. This course is designed as the first of a series of three; it should be followed by 431 and 432.

431. THE FRENCH NOVEL SINCE ROMANTICISM. *Mr. Alciatore.*

The novel as it evolved from Romanticism to Realism and from Realism to Naturalism. Analysis of subjective elements and of character development. The cult of form. The increasing influence of science. The reaction against Naturalism. Primary attention to Stendhal, Balzac, Flaubert, and Zola. Lectures and collateral reading. This course is designed to follow 430 and to correlate with 432.

432. FRENCH DRAMA AND POETRY SINCE ROMANTICISM. *Mr. Alciatore.*

Baudelaire. The Parnassians: Leconte de Lisle and Heredia. The Symbolists: Verlaine, Mallarmé, etc. The Mid-Nineteenth Century Social Drama of Dumas fils and Augier, Henry Becque, Antoine and the origins of the Little Theatre Movement. The Post-Naturalistic Drama of Maeterlinck, Porto Riche, Rostand, and others. Attention will be given at the end of this course to the development of French literature in all genres at the conclusion of the nineteenth century and the beginning of the twentieth century. Lectures, analysis of texts, collateral reading. The course is designed to follow 430 and to correlate with 431.

433. FRENCH DRAMA OF THE TWENTIETH CENTURY. *Mr. Jones.*

French drama since the first World War with its intellectual, cultural and social backgrounds. The new *animateurs de theatre*, new concepts of tragedy, avant-garde theatres. Special emphasis will be placed on the plays of Claudel, Romain, Lenormand, Bourdet, Giraudoux, Anouilh, Cocteau, Montherlant, Sartre and Camus.

434. THE FRENCH NOVEL OF THE TWENTIETH CENTURY. *Mr. Jones.*

The French novel since 1920 with its intellectual, cultural and social backgrounds. Special emphasis will be placed on the works of Gide, Proust, Malraux, Mauriac, Sartre, Camus, Giono and Montherlant. The avant-garde novels and regional novels of the period will also be discussed.

459. FRENCH LITERATURE OF THE SEVENTEENTH CENTURY—First half. *Mr. Jordan.*

The growth of the Classic Ideal with emphasis on the political, religious, social, and artistic background of the period. The evolution of poetic and prose styles with emphasis upon Malherbe, Descartes, Pascal, and Bossuet. The development of the classic tragedy with Pierre Corneille. This course will not be arbitrarily limited to the literature before 1660 but will deal as fully as possible with such authors as Boileau and LaFontaine in order that 460 may concentrate on two writers only. Lectures, analysis of texts, collateral reading.

460. FRENCH LITERATURE OF THE SEVENTEENTH CENTURY—Second half. *Mr. Jordan.*

This course will concentrate almost exclusively on Racine and Molière. A study of dramatic techniques and an analysis of characters. Many plays will be read and discussed in class; others will be assigned for collateral reading. Lectures and criticism of texts. This course is designed to follow 459.

461. FRENCH LITERATURE OF THE EIGHTEENTH CENTURY. *Mr. Downs or Mr. Alciatore.*

The growth of French rationalism. The growth of sensibility. *Belles-Lettres*. Bayle, Fontenelle, Montesquieu, Voltaire, Rousseau, Diderot, d'Holbach, Condillac, Helvetius; Marivaux, Lesage, Beaumarchais, André Chenier, and others. Lectures, collateral reading, analysis of texts.

500. FOREIGN LANGUAGE LABORATORY TECHNIQUES AND MATERIALS. Prerequisites: 15 quarter hours of French with a total of 20 quarter hours of foreign language study and permission of the instructor. *The Staff.*

Designed to meet the needs of public school teachers faced with a problem of using efficiently the many new Audio-Visual techniques and materials available to Modern Foreign Language teachers. One oral drill with the use of new techniques.

556. ADVANCED FRENCH SYNTAX AND COMPOSITION. No prerequisite beyond French 104. *Mr. Alciatore.*

Comprehensive review; suggested for teachers of French.

557. FRENCH PHONETICS. Prerequisites: French 201-202 or French 106. *Mr. Downs.*

A careful analysis of each of the sounds in the French language followed by intensive drill in the accurate pronunciation of these sounds in connected discourse. Practice in phonetic transcription; use of records and films for drill in intonation and conversation.

581. (EDUCATION) PROBLEMS OF TEACHING ROMANCE LANGUAGES. Prerequisite: French or Spanish 201-202 or 15 hours of Education in addition to French or Spanish 104. *Mr. Shedd.*

History of method, psychology of language learning, values, objectives, teacher's library, technique of oral work, pedagogy of phonetics, phonetics applied to grammar, pedagogy of vocabulary and reading. Visual aids and realia, individual differences, tests and measurements. Evaluation of texts, course content.

590. FRENCH FOR TEACHERS. Prerequisites: 15 quarter hours of French with a total of 20 quarter hours of foreign language study and permission of the instructor. 5 to 10 hours. *The Staff.*

Designed to be of special benefit to teachers who have been out of contact with the language for some time or who for any reason may need a "refresher" course. Oral as well as grammatical review.

809, 810, 811. SEMINAR ON ROMANTICISM. 5 hours each. *Mr. Downs.*

Deals with one major writer of the Romantic Period.

812, 813, 814. SEMINAR ON THE NINETEENTH CENTURY NOVEL. 5 hours each. *Mr. Alciatore.*

An intensive study of one novelist.

820, 821, 822. SEMINAR ON 20TH CENTURY LITERATURE. 5 hours each. *Mr. Alciatore and Mr. Jones.*

An intensive study of one major 20th Century writer.

850, 851. READINGS AND RESEARCH IN FRENCH LITERATURE. 5 hours each. Prerequisite: 10 credit hours in French literature courses 400 and above. *Mr. Alciatore, Mr. Downs, and Mr. Jordan.*

Requires extensive and intensive readings in French literature and in pertinent critical writings. The field to be covered will be determined by the student's previous background but will in all cases presume that the student is capable of reading French rapidly with comprehension.

870. INTRODUCTION TO OLD FRENCH. *Mr. deGorog.*

A history of the French Language from the appearance of the first texts in the 9th Century to the Renaissance, with linguistic analysis of representative texts.

GERMAN

101-102. ELEMENTARY GERMAN. 10 hours. *The Staff.*

(Students in this course may be required to spend a minimum of one hour a week outside of the class in the language laboratory.)

Fundamentals of grammar, pronunciation, conversation, composition, reading, and translation.

103. INTERMEDIATE GERMAN. Prerequisite: German 102 or two entrance units in German. *The Staff.*

Grammar review, reading and translation of intermediate texts, composition, and conversation.

104. INTERMEDIATE GERMAN. Prerequisite: German 103. *The Staff.*

Extensive readings in modern German prose, composition and conversation.

Any course numbered below 200 is considered elementary and will not count toward the minimum of 20 hours required in one subject for a major in language.

*201. INTRODUCTION TO GERMAN LITERATURE. Prerequisite: German 104 or German 205. *Mr. deGorog, Mr. Deinert, and Mr. Levitsky.*

A study of representative works of German literature in the nineteenth century.

*202. INTRODUCTION TO GERMAN LITERATURE. Prerequisite: German 104 or German 205. *Mr. deGorog, Mr. Deinert, and Mr. Levitsky.*

A study of the main literary movements and major works of representative German writers of the twentieth century.

*May be taken in lieu of 104 to satisfy degree requirements when 104 is not offered.

205. SCIENTIFIC GERMAN. Prerequisite: German 103. *Mr. deGorog* and *Mr. Levitsky*.

Readings in chemical, medical, and biological German.

210. ADVANCED CONVERSATION AND COMPOSITION. Prerequisite: German 104.

Three recitations and two double periods for oral practice each week.

433. GOETHE'S FAUST. Prerequisite: German 201 and 202 or by special permission of the instructor. *Mr. Deinert*.

Reading and interpretation of Part I of Faust.

ITALIAN

101-102 ELEMENTARY ITALIAN. 10 hours. *Mr. Downs*.

(Students in this course may be required to spend a minimum of one hour a week outside of class in the language laboratory.)

Grammar and composition, conversation, reading and dictation.

103. INTERMEDIATE ITALIAN. Prerequisite: Italian 102. *Mr. Downs*.

Intermediate grammar, reading, conversation, dictation, and composition.

104. ITALIAN GRAMMAR, COMPOSITION, AND CONVERSATION. Prerequisite: Italian 103. *Mr. Downs*.

An intensive reading of Dante's "Inferno," collateral reading, advanced conversation.

*201. INTRODUCTION TO ITALIAN LITERATURE. Prerequisite: Italian 104. *Mr. Downs*.

A study of the main literary movements and major works of representative Italian writers from the beginning through the 17th Century.

*202. INTRODUCTION TO THE STUDY OF ITALIAN LITERATURE. Prerequisite: Italian 104. *Mr. Downs*.

A study of the main literary movements and major works of representative Italian writers of the 18th and 19th Centuries.

LINGUISTICS

860. AN INTRODUCTION TO GENERAL LINGUISTICS. Prerequisites: Admission to the Graduate School, at least 20 hours of one foreign language, and permission of the instructor. *Mr. deGorog*.

An introduction to the study of language and the various techniques developed primarily in the U.S. in the 20th Century for the analysis of language. Provides students with a means of approaching languages of different structures, whether Indo-European or non Indo-European.

RUSSIAN

101-102. ELEMENTARY RUSSIAN. 10 hours. *Mr. Levitsky*.

Grammar and composition, conversation, reading and dictation.

103. INTERMEDIATE RUSSIAN. Prerequisite: Russian 102. *Mr. Levitsky*.

Intermediate grammar, reading, conversation, dictation, and composition.

104. RUSSIAN GRAMMAR, COMPOSITION, AND CONVERSATION. Prerequisite: Russian 103. *Mr. Levitsky*.

Advanced grammar, reading, oral and written composition, conversation, dictation.

401. INTRODUCTION TO MODERN RUSSIAN LITERATURE. (in translation). Prerequisite: 10 credits from among the following: English 121-122, French 201-202, German 201-202, Spanish 201-202, Italian 201-202 or 25 hours of foreign language including not less than 15 hours of Russian. *Mr. Levitsky*.

A survey of the golden age of Russian literature (first half of the 19th century) with emphasis on poetry and the drama. Reading, in translation, of representative works by Pushkin, Lermontov, Gogol, Griboedov, and Goncharov, and of selections from the works of lesser writers. Students who have studied the Russian language are required to read certain selections in the original.

*May be taken in lieu of 104 to satisfy degree requirements when 104 is not offered.

402. INTRODUCTION TO MODERN RUSSIAN LITERATURE. (in translation). Prerequisites: 10 credits from among the following: English 121-122, French 201-202, German 201-202, Spanish 201-202, Italian 201-202 or 25 hours of foreign language including not less than 15 hours of Russian. *Mr. Levitsky.*

A survey of Russian prose literature between 1850-1917. Reading, in translation, of representative works by Dostoevski, Turgenev, Chekhov, Tolstol, and Gorki, and of selections from the works of lesser writers. Students who have studied the Russian language are required to read certain selections in the original.

SPANISH

101-102. ELEMENTARY SPANISH. 10 hours. *Mr. Williams and the Staff.* (Students in this course may be required to spend a minimum of one hour a week outside of class in the language laboratory.)

Pronunciation, fundamentals of grammar, reading and conversation.

103. INTERMEDIATE SPANISH. Prerequisite: Spanish 102 or two entrance units in Spanish. *Mr. Shedd and the Staff.*

A rapid review of Spanish grammar, irregular verbs, and idioms. Intensive and extensive reading.

104. INTERMEDIATE SPANISH. Prerequisite: Spanish 103. *Mr. Shedd and the Staff.*

Intensive and extensive reading of texts of marked literary merit. Pronunciation and conversation. Prepares students to read Spanish in their specialized fields, to enter courses in Spanish literature (201), or to enter courses in conversation and composition (106).

106. SPANISH CONVERSATION AND COMPOSITION. Prerequisite: Spanish 104. *Mr. Williams.*

The emphasis is divided between conversation (three days a week) and composition (two days a week). The two phases of the course are correlated to promote the student's ability to express himself accurately whether in speaking or in writing Spanish. A strongly suggested elective for anyone planning to major in Spanish.

H-114 (214). INTERMEDIATE SPANISH (HONORS). Prerequisite: Spanish 101 and 102 or two entrance units in Spanish. *Mr. Shedd.*

Honors students who do satisfactory work in this course will receive credit for Spanish 103 and 104. It is not available for students who have had either Spanish 103 or 104 or both. Grammatical construction is reviewed through reading, and there is intensive classroom work and extensive outside reading. Spanish will be used as the language of the classroom.

Any course numbered below 200 is considered elementary and will not count toward the minimum of 20 hours required in one subject for a major in language.

201. INTRODUCTION TO SPANISH LITERATURE. Prerequisite: Spanish 104. *Mr. Lott, Mr. Shedd or Mr. Williams.*

A study of representative works of Spanish literature from its beginning through the Golden Age.

202. INTRODUCTION TO SPANISH LITERATURE. Prerequisite: Spanish 104. *Mr. Lott, Mr. Shedd or Mr. Williams.*

A study of representative works of Spanish literature from the Golden Age to the present.

306. SPANISH COMMERCIAL CORRESPONDENCE AND ADVANCED CONVERSATION. Prerequisite: Spanish 104. *Mr. Shedd.*

A study of special forms and construction of business letters with conversation based on Spanish-American material.

Spanish 201 and 202 are prerequisite to the following Spanish courses except as indicated. Spanish 202 may be taken either before or after Spanish 201.

420. THE MODERN SPANISH NOVEL. *Mr. Williams.*

A study of trends of the Spanish novel of the nineteenth and twentieth centuries.

421. THE DRAMA OF THE GOLDEN AGE. *Mr. Shedd.*

A study of the principal dramatists and their works with particular emphasis on Lope de Vega, Tirso de Molina, Ruiz de Alarcon, and Calderon de la Barca.

422. SPANISH PROSE OF THE GOLDEN AGE. *Mr. Williams.*

A study of the novel and short story of this period with emphasis on Cervantes.

423. THE DRAMA OF THE NINETEENTH CENTURY. *Mr. Williams.*

A study of the principal trends in the development of the drama with reading from representative authors. Particular emphasis on the Romantic Drama and the Comedy of Manners.

424. SPANISH PROSE BEFORE THE GOLDEN AGE. *Mr. Williams.*

A study of the exemplar collections, *La Celestina*, the chivalresque, sentimental, and Moorish novel.

425. THE MODERN DRAMA. *Mr. Williams.*

A study of representative writers and their works from Perez Galdos to the present day.

430. SPANISH-AMERICAN POETRY. *Mr. Shedd.*

A study of the contribution of the Spanish-American nations to the development of poetry. Readings from representative poets of the several countries.

431. SPANISH-AMERICAN PROSE. *Mr. Shedd.*

A study of the essay and novel as developed in the Spanish-American nations. Readings from representative writers of the several countries.

500. MODERN LANGUAGE LABORATORY TECHNIQUES AND MATERIALS. Prerequisites: 15 quarter hours of Spanish with a total of 20 quarter hours of foreign language study and permission of the instructor. *The Staff.*

Designed to meet the needs of public school teachers faced with the problem of using efficiently the many new Audio-Visual techniques and materials available to Modern Foreign Language teachers. Oral drill with the use of new techniques.

526. ADVANCED SPANISH SYNTAX AND COMPOSITION. *Mr. Shedd.*

A study of grammatical forms and usages with particular reference to the needs of those preparing to teach.

528. SPANISH PHONETICS. *Mr. Williams.*

A study of the organs of speech, the difference in production of Spanish and English speech sounds, and the various speech phenomena. Practice in phonetic transcription, pronunciation, and intonation.

581. (EDUCATION) PROBLEMS OF TEACHING ROMANCE LANGUAGES. Prerequisite: French or Spanish 201-202 or 15 hours of Education in addition to French or Spanish 104. *Mr. Shedd.*

History of method, psychology of language learning, values, objectives, pedagogy of technique of oral work, pedagogy of phonetics, phonetics applied to grammar, pedagogy of vocabulary and reading. Visual aids and realla, individual differences, tests and measurements. Evaluation of texts, course content.

590. SPANISH FOR TEACHERS. 5 to 10 hours. Prerequisite: 15 quarter hours of Spanish with a total of 20 quarter hours of foreign language study and permission of the instructor. *The Staff.*

Designed to be of special benefit to teachers who have been out of contact with the language for some time or who for any reason may need a "refresher" course. Oral as well as grammatical review.

808. CERVANTES. *Mr. Williams.*

A study of Cervantes' work with emphasis on *Don Quixote* and the Exemplary Novels.

809. THE MODERNISTA MOVEMENT IN SPANISH-AMERICA. *Mr. Shedd.*

A study of Ruben Darlo, his contemporaries and followers.

811, 812, 813. SEMINAR IN THE NINETEENTH CENTURY SPANISH NOVEL. 5 hours each. Prerequisite: A.B. degree with at least 10 quarter hours of upper division Spanish courses. *Mr. Williams.*

An intensive study of one nineteenth-century Spanish novelist, such as Jose Maria de Pereda, Juan Valera, Emilia Pardo Bazan, Armando Palacio Valdes, or Benito Perez Galdos.

821, 822, 823. SEMINAR IN SPANISH DRAMA OF THE GOLDEN AGE. 5 hours each. Prerequisite: A.B. degree with at least 10 quarter hours of upper division Spanish courses. *Mr. Shedd.*

An intensive study of one of the four outstanding seventeenth century dramatists; Lope de Vega, Tirso de Mohna, Ruiz de Alarcon, or Calderon de la Barca.

850, 851. READINGS AND RESEARCH IN SPANISH LITERATURE. 5 hours each. Prerequisite: 10 credit hours in Spanish literature courses 400 and above. *Mr. Shedd and Mr. Williams.*

Requires extensive and intensive readings in Spanish literature and in pertinent critical writings. The field to be covered will be determined by the student's previous background but will in all cases presume that the student is capable of reading Spanish rapidly with comprehension.

870. INTRODUCTION TO OLD SPANISH. *Mr. deGorog.*

A history of the Spanish Language from the appearance of the first Spanish documents until the Renaissance, with linguistic analysis of representative texts.

MUSIC

Head: Gerschefski. Staff: Anderson, Dancz, Dunaway, Elliott, Felberg, Karlas, Kimble, Leonard, Main, Mitchell, Newman, Richter, Warner.

THEORETICAL COURSES

110. FUNDAMENTALS OF MUSIC. 3 hours. (Meets five times a week.) *Theory Staff.*

A student expecting to enroll in this course must take an entrance examination.

111. THEORY: INTRODUCTION TO HARMONY, SIGHT-SINGING, AND DICTATION. 3 hours. (Meets five times a week.) Prerequisite: Music 110 or examination. *Theory Staff.*

Includes part-writing of all triads, sight-singing, dictation, and keyboard harmony.

112. THEORY: ELEMENTARY HARMONY, SIGHT-SINGING, AND DICTATION. 3 hours. (Meets five times a week.) Prerequisite: Music 111. *Theory Staff.*

Part-writing of triads in inversions, dominant seventh chord, sight-singing, dictation, and keyboard harmony.

134. THEORY: INTERMEDIATE HARMONY, SIGHT-SINGING, AND DICTATION. 3 hours. (Meets five times a week.) Prerequisite: Music 112. *Theory Staff.*

Secondary seventh chords and inversions, sight-singing, dictation, and keyboard harmony.

135. THEORY: INTERMEDIATE HARMONY, SIGHT-SINGING, AND DICTATION. 3 hours. (Meets five times a week.) Prerequisite: Music 134. *Theory Staff.*

Altered chords, ninth chords, augmented sixth chords, sight-singing, dictation, and keyboard harmony.

136. THEORY: ADVANCED HARMONY. 3 hours. (Meets five times a week.) Prerequisite: Music 135. *Theory Staff.*

Modulation, chromatic harmony, modal harmony, survey of modern techniques.

333. ADVANCED THEORY AND EXERCISES IN COMPOSITION. Prerequisite: Music 136. *Mr. Gerschefski or Mr. Main.*

An introduction to contemporary musical techniques for the performer and the composer.

374. ORCHESTRATION. 3 hours. Prerequisite or corequisite: Music 470. *Mr. Main or Mr. Mitchell.*

Principles and practices of instrumentation for chamber music, ensembles, and orchestra.

375. ORCHESTRATION. 3 hours. Prerequisite: Music 374. *Mr. Mitchell.*

Principles and practices of instrumentation for orchestra and concert band.

470. FORM AND ANALYSIS. Prerequisite: Music 136. *Mr. Anderson or Mr. Richter.*

Harmonic and polyphonic forms analyzed. Special stress given sonata form and Bach's "Well-Tempered Clavier." Students encouraged to write originally in forms thus analyzed.

471. SIXTEENTH-CENTURY COUNTERPOINT. Prerequisite: Music 136. *Mr. Anderson or Mr. Richter.*

The contrapuntal style and techniques of the sixteenth century, acquaintance with species counterpoint.

475. EIGHTEENTH-CENTURY COUNTERPOINT. Prerequisite: Music 470. *Mr. Main.*

Late Baroque contrapuntal techniques and styles.

476. COMPOSITION. 2 hours. Prerequisite: Music 333, 470, 471 and consent of instructor. *Mr. Gerschefski* or *Mr. Main.*

Writing in smaller forms.

477. COMPOSITION. 2 hours. Prerequisite: Music 476. *Mr. Gerschefski* or *Mr. Main.*

Continuation of Music 476.

478. COMPOSITION. 2 hours. Prerequisite: Music 477. *Mr. Gerschefski* or *Mr. Main.*

Writing in larger forms.

MUSIC LITERATURE COURSES

122. HISTORY OF MUSIC. 2 hours. *Mr. Felberg* or *Mr. Mitchell.*

A survey of important musical works and trends from the Baroque Period to the beginning of the Romantic Period.

123. HISTORY OF MUSIC. 2 hours. *Mr. Felberg* or *Mr. Mitchell.*

A survey of important musical works and composers from the beginning of the Romantic Period to the present day.

124. HISTORY OF MUSIC. 2 hours. *Mr. Felberg* or *Mr. Mitchell.*

Survey of important musical works and trends through the Renaissance.

143. INTRODUCTION TO MUSIC LITERATURE. 3 hours. *Mr. Anderson.*

343. LISTENER'S HISTORY OF MUSIC. 3 hours. *The Staff.*

A study of many of the masterpieces of music since the time of Bach; an introduction to music literature.

350. DEVELOPMENT OF OPERA. *Mr. Warner.*

A general literature course in the appreciation of the entire field of opera. Illustrations from selected scores played in class.

353. HISTORY OF PIANO AND VOICE LITERATURE. 3 hours. *Mr. Main* and *Mr. Warner.*

358. HISTORY AND ANALYSIS OF MUSICAL STYLE. *Mr. Felberg* or *Mr. Main.*

Designed especially for art majors.

442. WAGNER'S MUSIC DRAMAS. 3 hours. Prerequisite: Music 122, 123, 124 or equivalent. *Mr. Felberg.*

A course of literary and cultural value, concentrating on a detailed study of the plots and themes of the Wagner operas, with scores played in class.

455. ADVANCED MUSIC HISTORY. Prerequisite: Music 122, 123, 124, or equivalent. *The Staff.*

Special studies in history and literature of music.

456. BACH-BEETHOVEN-BRAHMS. 3 hours. Prerequisite: Music 122, 123, 124 or equivalent. *Mr. Main.*

A detailed study of the three composers, with their masterpieces performed in class.

457. BEETHOVEN SYMPHONIES. 3 hours. Prerequisite: 122, 123, 124, or equivalent. *Mr. Felberg.*

A detailed study of the nine symphonies of Beethoven.

458. WIND INSTRUMENT LITERATURE. 3 hours. *Mr. Mitchell.*

462. MODERN MUSIC. Prerequisite: Similar to Music 457. *Mr. Anderson.*

A literature course illustrating modern trends in music of Schoenberg, Stravinsky, Hindemith, Bartok, Scriabin, and others.

MUSIC EDUCATION COURSES

251. STRING METHODS. 2-4 hours. Basic principles as applied to all strings. *Mr. Felberg* and *Mr. Richter.*

252. WOODWIND METHODS. 2-4 hours. Basic principles as applied to all woodwinds. *Mr. Elliott.*

253. BRASS METHODS. 2-4 hours. Basic principles as applied to all brasses.
Mr. Mitchell.

263. MUSIC LABORATORY. 1 hour. *Mr. Warner.*
Laboratory for choral conducting.

264. MUSIC LABORATORY. 1 hour. *Mr. Main.*
Laboratory for minor instruments and orchestral conducting.

265. MUSIC LABORATORY. 1 hour. *Mr. Dancz.*
Laboratory for minor instruments and band conducting.

302. METHODS OF TEACHING PUBLIC SCHOOL MUSIC. For Education majors only. *Mr. Leonard.*

Techniques of teaching music in the elementary school; for the classroom teacher.

312. MUSIC FOR ELEMENTARY GRADES. For Music majors. Prerequisite: Music 112. *Mr. Newman.*

313. MUSIC IN JUNIOR AND SENIOR HIGH SCHOOLS. Prerequisite: Music 112. *Mr. Newman.*

361. ELEMENTARY CONDUCTING. 2 hours. Prerequisite: Music 136. *Mr. Warner.*

Principles of conducting and interpretation with vocal ensembles.

362. ELEMENTARY CONDUCTING. 2 hours. Prerequisite: Music 136. *Mr. Main.*

Principles of conducting and interpretation with orchestra and string ensembles.

363. ELEMENTARY CONDUCTING. 2 hours. Prerequisite: Music 136. *Mr. Dancz.*

Principles of conducting and interpretation with band and wind ensembles.

365. SURVEY OF CHORAL MUSIC AND TECHNIQUE OF CHORAL CONDUCTING. *Mr. Leonard or Mr. Warner.*

389. VOICE CLASS. 2 hours. *Mr. Leonard or Mr. Warner.*

Study of basic principles of voice production and how to apply them in glee clubs and choruses.

514. WORKSHOP FOR TEACHERS IN MUSIC EDUCATION. *Mr. Newman.*

Course designed to meet the needs of elementary school teachers, instructional supervisors, and music teachers.

531. PROBLEMS IN VOCAL MUSIC EDUCATION. 3 hours. Prerequisite: Music 312 and 313. *Mr. Leonard or Mr. Newman.*

Detailed study of voice problems from classroom point of view beginning in elementary and continuing through secondary school; technique used in choral ensembles; evaluation of present concepts and practices.

532. PROBLEMS IN INSTRUMENTAL MUSIC EDUCATION. 3 hours. Prerequisite: Music 312 and 313. *Mr. Newman.*

Study of techniques used for development of the instrumental music program beginning in elementary and continuing through secondary school; diagnosis of problems relating to strings, woodwinds, brasses, percussion.

533. MUSIC ADMINISTRATION AND CURRICULUM. 3 hours. Prerequisite: Undergraduate requirements in education, Music 312 and 313. *Mr. Newman.*

Development of music curriculum as part of general education planning; evaluation of school curricula and how music can become a functional part; problems in music administration, personnel, finance, equipment.

534. CHORAL MUSIC MATERIALS. 3 hours. Prerequisite: Music 312 and 313. *Mr. Leonard or Mr. Newman.*

Study and evaluation of music literature available for use in public school at all levels of instruction; research in various mediums and schools of composition which can be adapted for school use.

535. INSTRUMENTAL MUSIC MATERIALS. 3 hours. Prerequisite: Music 312 and 313. *Mr. Newman.*

Evaluation of materials available at all levels of instruction for band, orchestra and chamber music; research in materials of various mediums and schools of composition which can be adapted for school use.

APPLIED MUSIC

(Primarily for Music Majors)

The following courses are offered primarily for music majors, but a limited number of non-majors may be accepted when schedules permit. A laboratory fee of \$30 per quarter is charged to non-majors for each 25-minute lesson taken weekly.

Before registering for applied music courses, students must consult with the Head of the Music Department.

Music 191, 192, 293, and 294 may be taken only by students working toward the B.M. degree.

171. APPLIED MUSIC. 2 hours (6 hours per year). Two 25-minute private lessons a week for three quarters. Laboratory fee course.

172. APPLIED MUSIC. 2 hours (6 hours per year). Prerequisite: Music 171. Two 25-minute private lessons a week for three quarters. Laboratory fee course.

185. APPLIED MUSIC. 1 hour (3 hours per year). One 25-minute private lesson a week for three quarters. Laboratory fee course.

186. APPLIED MUSIC. 1 hour (3 hours per year). Prerequisite: Music 185. One 25-minute lesson a week for three quarters. Laboratory fee course.

187. APPLIED MUSIC. 1 hour (3 hours per year). One 25-minute lesson a week for three quarters. Laboratory fee course.

188. APPLIED MUSIC. 1 hour (3 hours per year). Prerequisite: Music 187. One 25-minute lesson a week for three quarters. Laboratory fee course.

191. APPLIED MUSIC. 4 hours (12 hours per year). Two 25-minute lessons a week for three quarters. Laboratory fee course.

192. APPLIED MUSIC. 4 hours (12 hours per year). Prerequisite: Music 191. Two 25-minute lessons a week for three quarters. Laboratory fee course.

273. APPLIED MUSIC. 2 hours (6 hours per year). Prerequisite: Music 172. Two 25-minute lessons a week for three quarters. Laboratory fee course.

274. APPLIED MUSIC. 2 hours (6 hours per year). Prerequisite: Music 273. Two 25-minute lessons a week for three quarters. Laboratory fee course.

287. APPLIED MUSIC. 1 hour (3 hours per year). Prerequisite: Music 186. One 25-minute lesson a week for three quarters. Laboratory fee course.

288. APPLIED MUSIC. 1 hour (3 hours per year). Prerequisite: Music 287. One 25-minute lesson a week for three quarters. Laboratory fee course.

289. APPLIED MUSIC. 1 hour (3 hours per year). Prerequisite: Music 188. One 25-minute lesson a week for three quarters. Laboratory fee course.

290. APPLIED MUSIC. 1 hour (3 hours per year). Prerequisite: Music 289. One 25-minute lesson a week for three quarters. Laboratory fee course.

293. APPLIED MUSIC. 4 hours (12 hours per year). Prerequisite: Music 192. Two 25-minute lessons a week for three quarters. Laboratory fee course.

294. APPLIED MUSIC. 4 hours (12 hours per year). Prerequisite: Music 293. Two 25-minute lessons a week for three quarters. Laboratory fee course.

785, 786, 787. APPLIED MUSIC. 1 hour (3 hours per year). Applied music for graduate students in Music Education.

ENSEMBLE COURSES

A maximum of six hours in ensemble courses is allowed toward graduation.

387. UNIVERSITY CIVIC SYMPHONY ORCHESTRA. 6 hours. (1 hour per quarter). Two hours per week for two years. Open to students who can qualify for symphony orchestra. *Mr. Main.*

388. UNIVERSITY CHORUS. 6 hours. (1 hour per quarter). Three hours per week for two years. Open to students who can qualify for serious choral study. *Mr. Main.*

390. UNIVERSITY BAND. 6 hours (1 hour per quarter). Four hours per week for two years. Open to students who can qualify and who will give this time in addition to the time credited to military science. *Mr. Dancz.*

MUSIC COURSES COMBINED WITH OTHER COURSES

451. MUSIC AND LITERATURE. *Mr. Brown.*

A comparative study of the forms, relationships, and aesthetics of music and literature. Admission by consent of the instructor.

GRADUATE COURSES

710. ADVANCED THEORY. 3 hours. Prerequisite: Music 136. *Mr. Anderson.*

A survey of harmonic and contrapuntal resources with emphasis upon aural and visual analysis.

714. WORKSHOP FOR TEACHERS IN MUSIC EDUCATION. *Mr. Newman and Mr. Mitchell.*

Course designed to meet the needs of elementary school teachers, instructional supervisors, and music teachers.

731. PROBLEMS IN VOCAL MUSIC EDUCATION. 3 hours. Prerequisite: Music 312 and 313. *Mr. Leonard or Mr. Newman.*

Detailed study of voice problems from classroom point of view beginning in elementary and continuing through secondary school; technique used in choral ensembles; evaluation of present concepts and practices.

732. PROBLEMS IN INSTRUMENTAL MUSIC EDUCATION. 3 hours. Prerequisite: Music 312 and 313. *Mr. Newman.*

Study of techniques used for development of the instrumental music program beginning in elementary and continuing through secondary school; diagnosis of problems relating to strings, woodwinds, brasses, percussion.

733. MUSIC ADMINISTRATION AND CURRICULUM. 3 hours. Prerequisite: Undergraduate requirements in education, Music 312 and 313. *Mr. Newman.*

Development of music curriculum as part of general education planning; evaluation of school curricula and how music can become a functional part; problems in music administration, personnel, finance, equipment.

734. CHORAL MUSIC MATERIALS. 3 hours. Prerequisite: Music 312 and 313. *Mr. Leonard or Mr. Newman.*

Study and evaluation of music literature available for use in public school at all levels of instruction; research in various mediums and schools of composition which can be adapted for school use.

735. INSTRUMENTAL MUSIC MATERIALS. 3 hours. Prerequisite: Music 312 and 313. *Mr. Newman.*

Evaluation of materials available at all levels of instruction for band, orchestra and chamber music; research in materials of various mediums and schools of composition which can be adapted for school use.

736. EDITING AND ARRANGING. 3 hours. Prerequisites: Music 375. *Mr. Newman.*

Evaluation of representative instrumental and vocal published scores. A study of how to adapt them to specific groups; transcription for large or small ensembles; studies in timbre, color, qualities, etc. of instruments and voices; arranging accompaniments.

737. SCORE ANALYSIS. 3 hours. Prerequisites: Music 136, 370. *Mr. Main.*
Learning techniques of harmonic and formal analysis and preparation of scores for rehearsal.

738. ADVANCED CONDUCTING. 3 hours. Prerequisites: Music 363, 370. *Mr. Newman.*

Developing conducting technique in rehearsing laboratory; survey and evaluation of materials on conducting.

751. INSTRUMENTAL TECHNIQUES. 2 to 6 hours. *The Staff.*

An advanced study of the performance and teaching techniques of wind, string and percussion instruments.

777. APPLIED MUSIC. 5 to 10 hours. Open to piano or voice graduates by consent of Head of the Department. Preparation of recital program, intensive study of repertoire, and preparation of recommended works for public performance. *The Staff.*

785, 786, 787, 788, 789, 790. APPLIED MUSIC. 1 hour each.

Applied music for graduate students in Music Education.

875. RESEARCH SEMINAR. 5 or 10 hours. *Mr. Mitchell.*

876. ACOUSTICS OF MUSIC. *Mr. Newman.*

A study of the physical nature of sound production and transmission, with particular application to musical instruments, the voice, notation, and architecture.

878. SEMINAR IN SACRED MUSIC LITERATURE. 5 or 10 hours. Prerequisites: Ten hours of senior division music literature courses. *Mr. Mitchell.*

Historical development of the large forms of sacred music; the oratorio, the cantata, the passion. Study of the literature.

879. ADVANCED COMPOSITION. 5 or 10 hours. Prerequisite: Music 478. Use of various forms. Public performance of major original composition in large form. *Mr. Gerschefski* or *Mr. Main.*

880. THE SYMPHONY. 5 to 10 hours. Prerequisites: Ten hours of senior division music literature courses. *Mr. Mitchell.*

Historical development of the symphony. Study of important scores. Analysis of masterpieces for the orchestra. Study of orchestral development.

NURSING

Students interested in working for a Bachelor of Science in Nursing degree are referred to the Dean of Nursing, Medical College of Georgia, Augusta, Georgia. The program earlier carried at the University of Georgia has been transferred to the Medical College of Georgia. Pre-Nursing courses, when approved by the Dean of Nursing, may be taken at the University of Georgia.

PHILOSOPHY AND RELIGION

(Meigs Hall, North Campus)

Head: Ayers. Philosophy Staff: Levison and Scott.

PHILOSOPHY

104. INTRODUCTION TO PHILOSOPHY. *The Staff.*

The fundamentals of philosophy, the meaning and function of philosophy, the vocabulary and problems of philosophy, and the relation of philosophy to science, art, and religion. Includes a survey of the basic issues and major types in philosophy, and shows their sources in experience, history, and representative thinkers.

H-115 (215). THE FUNDAMENTAL QUESTIONS OF PHILOSOPHY (HONORS). *Mr. Levison.*

A study of the fundamental questions of philosophy and the answers given to those questions by the major schools of philosophical thought. Not open to any student having credit for Philosophy 104.

305. ETHICS. *The Staff.*

A study of moral philosophy in its bearing on human conduct and social relations, including an analysis of the nature and criteria of good and evil, right and justice, moral obligation and freedom. Issues of personal and social ethics are discussed in the light of readings in the classical moralists and in contemporary literature.

356. HISTORY OF PHILOSOPHY, ANCIENT AND MEDIEVAL. *The Staff.* (Offered in alternate years. Offered in 1962-63).

An historical introduction to philosophy, tracing the development of European philosophy from the time of the early Greeks through the Renaissance.

357. HISTORY OF PHILOSOPHY, MODERN. Prerequisite: Philosophy 104 or 356 or consent of the instructor. *The Staff.* (Offered in alternate years. Offered in 1962-63).

Traces the development of European philosophy up to the nineteenth century.

358. MODERN LOGIC. *Mr. Levison and Mr. Scott.*

A study of the principles and problems of critical thinking, especially of deductive reasoning, both sentential and class. Consideration is given to the more frequently used logical formulae; the uses of language, logical, emotional and volitional; the making of definitions; and the logical fallacies.

408. (RELIGION) PHILOSOPHY OF RELIGION. *Mr. Ayers.*

The branch of philosophy that inquires into the origin, nature, function, and value of religion; examines the source and validity of the claims which religion makes; studies the fundamental religious problems and concepts as they find expression in Western religious philosophies, such as Judaism, Catholicism, Protestantism, Modernism, Agnosticism, Ethical Idealism, and Humanism.

409. LITERATURE OF ANCIENT AND MEDIEVAL PHILOSOPHY. *Mr. Levison.* (Offered in alternate years. Offered in 1961-62).

A course in the primary works of great philosophers of ancient and medieval times, especially the writings of Plato and Aristotle.

410. LITERATURE OF MODERN AND CONTEMPORARY PHILOSOPHY. Prerequisite: Philosophy 104 or 356 or consent of the instructor. *Mr. Levison.* (Offered in alternate years. Offered in 1961-62).

Selected readings in important philosophers, modern and contemporary.

411. (ART) AESTHETICS. *Mr. Breithaupt and The Staff.*

The philosophy of the beautiful and of aesthetic values in art, literature, music, or wherever found. An analysis of aesthetic experience and of aesthetic types. Covers the nature, origin, psychological and social foundations of art, both practical and fine. Particular emphasis is placed upon the role of social ideas and cultural circumstances in the growth and decline of the various arts.

450. CONTEMPORARY PHILOSOPHY. Prerequisite: At least one course in philosophy other than 358. *Mr. Levison.*

The third course in the History of Philosophy sequence, but may be taken independently. Selected readings in important philosophers of the 19th and 20th centuries, including such thinkers as Nietzsche, Mill, Marx, Spencer, Bergson, James, Royce, Dewey, Whitehead, and Santayana. The program is left flexible to allow for the divergent interests and needs of students and to permit consideration of significant current material.

458. SYMBOLIC LOGIC. Prerequisite: Philosophy 358. *Mr. Levison and Mr. Scott.*

An advanced course dealing with both traditional and modern methods in logic, especially the contributions of symbolic and mathematical logic.

459. PHILOSOPHY OF SCIENCE. *Mr. Scott.*

A study of the methods, principles, and problems of inductive reasoning, including the nature of probable inference, techniques of verification, and the structure of scientific explanation.

For descriptions of the following courses in Political Philosophy, refer to the offerings in Political Science.

485. (POLITICAL SCIENCE) POLITICAL PHILOSOPHIES OF ANCIENT, MEDIEVAL, AND EARLY MODERN TIMES. *Mr. Parthemos.*486. (POLITICAL SCIENCE) POLITICAL PHILOSOPHIES OF RECENT TIMES. *Mr. Parthemos.*

RELIGION

400. HISTORY OF RELIGION. *Mr. Ayers.*

It is the aim of this course to survey the nature of early and primitive religions and to cover the main outlines of the chief living religions of the world. The method will be both historical and analytical.

410. OLD TESTAMENT LITERATURE. *Mr. Ayers.* (Offered in 1961-62).

A study of the nature, content, and problems of Old Testament literature, with attention given to historical data, literary forms, and outstanding personalities.

411. NEW TESTAMENT LITERATURE. *Mr. Ayers.* (Offered in 1961-62).

A study of the nature, content, and problems of New Testament literature, with particular attention given to (1) the political, social, and religious background of Judaism, out of which Christianity sprang; (2) the life of Jesus; (3) the immediate foreground of an expanding church.

430. PERSONALITIES OF THE OLD TESTAMENT. *Mr. Ayers.* (Offered in 1962-63).

A study of the development of Hebrew religion from its early, more primitive stages to the high point attained in the social, ethical, and spiritual teachings of the great writing prophets of Israel.

440. THE TEACHINGS OF JESUS. *Mr. Ayers.* (Offered in 1962-63).

Although primarily a study of what Jesus taught, attention is given to the literary and environmental background of his teaching, the historical life of the teacher, and the contemporary validity of what he taught.

For the convenience of the students, courses approved for transfer credit when taken at the Christian College of Georgia are listed below. A maximum of 15 hours may be transferred. Each course carries 5 hours of credit. Classes are held at the Christian College, 220 South Hull Street.

320. RELIGION IN AMERICA. *Mr. Dowdy.* (Offered in 1962-63).

The rise and development of organized religion in the United States from the Colonial period to the present; principally a study of American Catholicism, Judaism and Protestantism and their significance as a major factor in the development of American life.

330. THE RELIGIOUS THOUGHT OF THE BIBLE. *Mr. Dowdy.* (Offered in 1961-62).

The leading religious ideas of both the Old and New Testaments; their rise and development; and their importance to Hebrew-Christian religion.

331. THE JOHANNINE BOOKS OF THE NEW TESTAMENT. *Mr. Dowdy.* (Offered in 1961-62).

The Gospel, Letters, and Revelation of John, including the critical problems dealing with these books, with major emphasis on their content and religious value for Christians of the first century and today.

332. THE LIFE AND LETTERS OF PAUL. *Mr. Dowdy.* (Offered in 1961-62).

An historical-exegetical study of the life and letters of Paul; the relationship between Acts and the Pauline Epistles, early non-Pauline Gentile Christianity, the Pauline theology and its lasting impression on Christianity.

341. THE ORIGIN AND DEVELOPMENT OF CHRISTIANITY TO 1500 A. D. *Mr. Dowdy.* (Offered in 1962-63).

Historical and social background of the rise of Christianity; and a study of the interrelation between Christianity and Western Civilization during the periods of early and medieval Christianity.

350. RELIGION DURING THE REFORMATION AND MODERN PERIODS. *Mr. Dowdy.* (Offered in 1962-63).

A socio-historical presentation of the development of Christianity in the reformation and modern periods in Europe; Christianity's relation to the growth of Western Civilization.

PHYSICS AND ASTRONOMY**

(Physics Building, South Campus)

Head: Rayburn. Staff: Cooper, Dixon, Henkel, Henry, Sears, Steuer, Thompson.

**Students may be held responsible for breakage in laboratory courses.

ASTRONOMY

391. **DESCRIPTIVE ASTRONOMY.** Prerequisite: Physical Science 101 or equivalent. Four lecture and one two-hour laboratory periods per week. *Mr. Dixon.*

This course is designed for the general student who desires to acquaint himself, or herself, with the stars, the members of the solar system, their motions and constitution. The laboratory and observing work of this course includes exercises with the celestial globe, star maps, and the plotting hemisphere. Observations will be made with a telescope and a classroom planetarium. Latitude and longitude will be measured.

591. **ASTRONOMY FOR TEACHERS.** Not open to students with credit in Astronomy 391. Four hours of recitations and two hours of laboratory per week. Prerequisites: 10 hours of physics and 20 hours of physical science (physics, chemistry, geology, mathematics, and astronomy). *Mr. Dixon and Mr. Sears.*

Discussions, lectures, and laboratory exercises focused on the problems that are involved in science teaching in the secondary schools relative to astronomical concepts and procedures.

PHYSICAL SCIENCE

101. **PHYSICAL SCIENCE.** No credit will be allowed for Physical Science 101 if a student shows credit for any course in physics. *The Staff.*

A survey, the objectives of which are: (1) to give an elementary knowledge of the most fundamental facts, laws, theories, and hypotheses of physics and astronomy and the main practical application of these sciences in our daily lives; (2) to give some idea of the meaning and value of the scientific method and how physical science has modified man's ways of thinking and manner of living.

PHYSICS

120. **PHYSICS SURVEY.** Not open to students who have credit for Physical Science 101 or any course in physics. Four lectures and one two-hour laboratory period. *The Staff.*

An elementary study of the fundamentals of physics with a study of some of the simpler applications of physics. The laboratory period of two hours a week will be devoted to measurements designed to give an introduction in laboratory methods. *This is a terminal course.*

127. **GENERAL PHYSICS—MECHANICS.** Four hours of recitation and two hours of laboratory work. Prerequisites: Mathematics 100-101. *The Staff.*

An introductory course that deals with the fundamental laws of mechanics.

128. **GENERAL PHYSICS—HEAT, SOUND, AND LIGHT.** Four hours of recitation and two hours of laboratory work. Prerequisite: Physics 127. *The Staff.*

An introductory course dealing with the fundamental laws of heat, sound, and light.

137. **GENERAL PHYSICS—MECHANICS.** No credit will be allowed for Physics 137 if credit is shown for Physics 127. Four hours of recitation and two hours of laboratory work. Prerequisites: Mathematics 254. Corequisite: Mathematics 255. *The Staff.*

Fundamental laws of mechanics. The calculus is used as a mathematical tool in order to lead to a better understanding of the physical principles studied.

138. **GENERAL PHYSICS—HEAT, SOUND, AND LIGHT.** No credit will be allowed for Physics 138 if credit is shown for Physics 128. Four hours of recitation and two hours of laboratory work. Prerequisite: Physics 137. *The Staff.*

Fundamental laws of heat, sound, and light. The calculus is used as a mathematical tool in order to lead to a better understanding of the physical principles studied.

229. **GENERAL PHYSICS—ELECTRICITY, MAGNETISM AND MODERN PHYSICS.** Four hours of recitation and two hours of laboratory work. Prerequisite: Physics 128. *The Staff.*

Fundamental laws of electricity and magnetism. Some of the newest developments in the general field of physics are also discussed.

239. GENERAL PHYSICS—ELECTRICITY, MAGNETISM, AND MODERN PHYSICS. No credit will be allowed for Physics 239 if credit is shown for Physics 229. Four hours of recitation and two hours of laboratory work. Prerequisite: Physics 138. *The Staff*.

Fundamental laws of electricity and magnetism. Some of the newest developments in the general field of physics are also discussed. The calculus is used as a mathematical tool in order to lead to a better understanding of the physical principles studied.

332. EXPERIMENTAL ELECTRICITY AND MAGNETISM. Three hours of recitation and four hours of laboratory work. Prerequisite: Physics 229, Mathematics 254 and Mathematics 255. *Mr. Dixon*.

An intermediate course in electrical and magnetic measurements.

333. LIGHT. Three hours of recitation and four hours of laboratory work. Prerequisite: Physics 229, Mathematics 254 and Mathematics 255. *Mr. Cooper*.

An intermediate course stressing experimental work on reflection, refraction, interference, diffraction, and polarization of light.

334. ADVANCED HEAT. Four hours of recitation and two hours of laboratory work. Prerequisite: Physics 229, Mathematics 254 and Mathematics 255. *Mr. Henry*.

The material in this course includes temperature and its measurement, specific heats, thermal expansion, transfer of heat by conduction, convection and radiation, the states of matter, elementary thermodynamics, production of high and low temperatures.

372. NUCLEAR RADIATIONS. Four hours of recitation and two hours of laboratory work. Prerequisites: Physics 229, Mathematics 254, and Mathematics 255. *Mr. Rayburn, Mr. Steuer, or Mr. Thompson*.

An intermediate course dealing with some of the recent developments in physics.

380. ELECTRONICS. Three hours of recitation and four hours of laboratory work. Prerequisites: Physics 332. *Mr. Dixon*.

An introduction to the theory and applications of basic electronic devices.

404, 405. THEORETICAL MECHANICS. Four hours each. Four hours of recitation per week. Prerequisite for 404: Physics 229. Corequisite for 404: Mathematics 401. *The Staff*.

These courses develop within the framework of Newtonian principles: Statics, kinematics and dynamics of a particle and of systems of particles, mechanics of continuous media, and Lagrange's equations.

406. VIBRATION AND SOUND. No credit will be allowed for Physics 406 if credit is shown for Physics 345. Four hours of recitation and two hours of laboratory work. Prerequisite: Physics 404. *The Staff*.

The production, transmission, reflection, absorption, and the general effects of vibration and sound.

420, 421. ELECTRICITY AND MAGNETISM. Four hours each. No credit will be allowed for Physics 420 if credit is shown for Physics 471. Four hours of recitation per week. Prerequisites for 420: Physics 332 and Mathematics 401. *The Staff*.

Beginning with the experimentally determined laws of Coulomb, Ampere, Biot-Savart, Faraday, and others the fundamental methods of Gauss and Stokes will be applied to develop logically the complete theory as embodied in Maxwell's equations.

430. THERMODYNAMICS. No credit will be allowed for Physics 430 if credit is shown for Physics 434. Five hours of recitation per week. Prerequisites: Physics 229 and Mathematics 401. Corequisite: Mathematics 457. *The Staff*.

The laws of thermodynamics and their application to the fundamental concepts of physics.

431. KINETIC THEORY AND STATISTICAL MECHANICS. Five hours of recitation per week. Prerequisites: Physics 404 and Physics 430. *The Staff*.

An introduction to the study of statistical mechanics and its application to the study of gases.

440. METHODS OF THEORETICAL PHYSICS. No credit will be allowed for Physics 440 if credit is shown for Physics 401. Five hours of recitation per week. Prerequisites: Physics 404 and Mathematics 457. *The Staff.*

The application of advanced mathematics to the solution of the ordinary and partial differential equations encountered in courses in advanced physics. Some of the subjects studied are: Fourier series, Bessel functions, Legendre Polynomials, and solutions of the wave equation, Laplace's equation, and other linear partial differential equations in different coordinate systems.

450. ATOMIC PHYSICS. No credit will be allowed for Physics 450 if credit is shown for Physics 481. Four hours of recitation and two hours of laboratory per week. Prerequisites: Physics 333 and Physics 404. *The Staff.*

This course develops atomic theory as may be determined from optical and X-ray spectra and the interaction of atoms with electric and magnetic fields. Atomic spectra will be interpreted with the aid of Schrodinger's wave equation.

472, 473. NUCLEAR STRUCTURE. 4 hours each. Four hours of recitation per week. Prerequisite for 472: Physics 450. *Mr. Rayburn, Mr. Steuer, and Mr. Thompson.*

Introduction to the theory of nuclear structure as it has been inferred from quantum mechanical considerations and the study of experimental data on radioactivity and nuclear reactions.

482, 483. SOLID STATE PHYSICS. 4 hours each. No credit will be allowed for Physics 482 if credit is shown for Physics 491. Four hours of recitation per week. Prerequisites for 482: Physics 404; Physics 430 desirable. *The Staff.*

Elastic, electrical, magnetic, and thermal properties of solids. Covers such topics as: crystal structure, X-ray and neutron diffraction, elasticity, crystal imperfections, thermal and electrical conduction, spin resonance, the photoelectric effect, and transistor theory.

529. ELECTRICITY, MAGNETISM, ELECTRONICS AND RADIOACTIVITY. Four lecture and discussion and one two-hour laboratory period per week. Prerequisites: 10 hours of physics (or the equivalent) and 20 hours of physical science (physics, chemistry, mathematics, geology and astronomy). *Mr. Dixon and Mr. Sears.*

This course is designed to aid the elementary physics teacher in dealing with problems in electricity, magnetism, electronics, and radioactivity which arise in his teaching. The factors involved in effective presentation of physical concepts in these areas will be emphasized.

810, 811, 812. QUANTUM MECHANICS. 3 hours each. No credit will be allowed for Physics 810 if credit is shown for Physics 806. Three hours of recitation per week. Prerequisites for 810: Physics 621 and Physics 819. *The Staff.*

Basic principles of quantum theory, wave mechanics, and the application of these principles to problems in modern physics.

817, 818, 819. ADVANCED ANALYTICAL MECHANICS. 3 hours each. No credit will be allowed for Physics 817 if credit is shown for Physics 805. Three hours of recitation per week. Prerequisites for 817: Physics 604 and Physics 605. *The Staff.*

Systems of particles, D'Alembert's principle, principle of least action, Hamilton's principle, generalized coordinates, Poisson brackets, and the Hamilton-Jacobi equation.

820, 821, 822. ADVANCED ELECTROMAGNETIC THEORY. 3 hours each. Three hours of recitation per week. Prerequisites for Physics 820: Physics 421 and Mathematics 458. *The Staff.*

Maxwell's equations are assumed initially and used to investigate classical electromagnetic phenomena. A formulation of the field equations is developed in a space-time continuum. Beginning with the static phenomena the study will include the theory of multipoles, the radiation and propagation of electromagnetic waves, and the related reflection, refraction, diffraction, and dispersion phenomena.

830, 831, 832. STATISTICAL MECHANICS. 3 hours each. Three hours of recitation per week. Prerequisite for Physics 830: Physics 810. *Mr. Henkel.*

A study of the basic theory of statistical mechanics and its applications to the solution of some fundamental problems in physics.

850, 851, 852. MOLECULAR SPECTRA AND STRUCTURE OF DIATOMIC AND POLYATOMIC MOLECULES. 3 hours each. No credit will be allowed for Physics 850 if credit is shown for Physics 800. Three hours of recitation per week. Prerequisites for 850: Physics 650; Physics 810 desirable. *Mr. Cooper* and *Mr. Sears*.

A study of the structure of molecules as may be determined from their rotational, vibrational, and electronic spectra. The theory of molecular spectra will be presented for diatomic and selected polyatomic molecules.

855, 856. INFRARED SPECTROSCOPY. 3 hours each. No credit will be allowed for Physics 855 if credit is shown for Physics 802. Three hours of recitation per week. Prerequisite for 855: Physics 650. *Mr. Sears*.

A study of the origin of infrared spectra in polyatomic and polymeric molecules. Infrared spectrophotometer instrumentation, infrared determination of molecular structure, qualitative analysis, and quantitative analysis of organic compounds will be treated.

873, 874, 875. NUCLEAR THEORY. 3 hours each. No credit will be allowed for Physics 873 if credit is shown for Physics 872. Three hours of recitation per week. Prerequisites for 873: Physics 673 and Physics 812. *Mr. Rayburn*, *Mr. Steuer*, or *Mr. Thompson*.

A course in advanced nuclear theory. Some of the topics covered are: Multipole radiations, polarization phenomena, resonance theory, and nuclear scattering phenomena.

POLITICAL SCIENCE

(LeConte Hall, North Campus)

Head: Pound. Staff: Askew, Collins, Gibson, Heffernan, Hughes, Moran, Parthemos, Range, Saye, Shadgett.

AMERICAN GOVERNMENT AND AMERICAN CONSTITUTIONAL LAW

101. AMERICAN GOVERNMENT. *Mr. Pound* and *the Staff*.

An introductory course covering the essential facts of federal, state, and local governments in the United States. Prerequisite for advanced courses in political science. A satisfactory grade will exempt a student from the requirement of passing an examination on the Constitution of the United States and the Constitution of Georgia before graduation.

H-105. AMERICAN GOVERNMENT (HONORS). *Mr. Gibson*, *Mr. Parthemos*, *Mr. Range*, and *Mr. Saye*.

An introduction to political science with emphasis on American political institutions. Supplemented by reading designed to introduce the students to the source materials of American political theory and the development of American political institutions.

202. AMERICAN GOVERNMENT. Prerequisite: Political Science 101. All students who expect to major in political science are advised to take this course. *Mr. Gibson*, *Mr. Parthemos*, and *Mrs. Shadgett*.

A continuation of Political Science 101 with emphasis on the internal organization and actual workings of the various departments of our national government.

410. AMERICAN POLITICAL PARTIES. *Mr. Pound*.

A study of the influence of political parties on the governmental organization and on the history and political thought of the United States.

483. AMERICAN CONSTITUTIONAL LAW. *Mr. Saye*.

A study of the fundamental principles of constitutional interpretation and practice in the United States through decisions and opinions of the Supreme Court.

484. AMERICAN CONSTITUTIONAL LAW. *Mr. Saye*.

A continuation of Political Science 483, with emphasis on recent Supreme Court decisions.

883-884. PROBLEMS OF CONSTITUTIONAL GOVERNMENT IN THE UNITED STATES. 5 hours for each course. *Mr. Pound*, *Mr. Saye*.

Courses designed to provide individual or small group instruction for graduate students who are interested in an extensive study of special problems of American government.

STATE AND LOCAL GOVERNMENTS

405. THE CONSTITUTION OF GEORGIA. *Mr. Saye.*

An historical survey of the evolution of the Constitution of Georgia followed by a detailed study of the present Constitution through decisions and opinions of the Supreme Court of Georgia.

406. STATE GOVERNMENT. *Mr. Pound.*

A study of the forms of organization, the functions, and the operation of state governments of the United States with particular emphasis on the government of the State of Georgia. Exempts the student from the requirement of passing an examination on the Constitution of the United States and the Constitution of Georgia before graduation.

468. CITY AND COUNTY GOVERNMENT. *Mr. Askew.*

Organization and operation of city and county governments in the United States. Political aspects of these governments and techniques of citizen participation. Students will become familiar with the actual workings of city and county governments in Georgia through field trips and field studies.

885-886. READINGS AND RESEARCH IN PROBLEMS OF GOVERNMENT IN GEORGIA. 5 hours for each course. *Mr. Pound, Mr. Saye.*

Courses designed to provide individual instruction for graduate students in an intensive study of special problems of Georgia government.

POLITICAL THEORY

408. AMERICAN POLITICAL THOUGHT TO 1800. *Mr. Pound.*

A study of the political theory of the colonial period, the American Revolution, and the theories of the Convention of 1787 and the early interpretation of the Constitution. Political Science 408 and 409 form a natural sequence, though either or both may be elected. Where the student takes the entire sequence, it is desirable to take Political Science 408 first.

409. AMERICAN POLITICAL THOUGHT SINCE 1800. *Mr. Pound.*

A study of the theories as to the nature of the Union, slavery, Civil War, Reconstruction, and the contemporary United States.

485. POLITICAL PHILOSOPHIES OF ANCIENT, MEDIEVAL, AND EARLY MODERN TIMES. *Mr. Parthemos.*

An historical study of the development of ideas relative to the state and government in ancient, medieval, and early modern times. Attention is directed primarily to the political thought of a selected group of eminent philosophers including Plato, Aristotle, Cicero, St. Augustine, St. Thomas Aquinas, Machiavelli, Bodin, Hobbes, and Locke.

486. POLITICAL PHILOSOPHIES OF RECENT TIMES. *Mr. Parthemos.*

This course forms a sequence to Political Science 485. Either of the courses may be taken separately, but since emphasis is given to the growth of political thought, it is preferable to take the early period first.

COMPARATIVE GOVERNMENTS AND INTERNATIONAL RELATIONS

307. EUROPEAN GOVERNMENTS. *Mr. Askew.*

The principles and forms of organization of the governmental systems of Europe.

311. THE GOVERNMENTS OF LATIN AMERICA. *Mrs. Shadgett.*

A study of the principles and forms of organization of the governments of Latin America.

351. GOVERNMENT AND POLITICS OF BRITAIN. *Mr. Askew.*

The structure and functioning of British government. Policy and administration in several fields of national and international importance will be studied.

412. THE GOVERNMENT OF THE SOVIET UNION. *Mr. Range.*

A study of the government of the Soviet Union. Emphasis will be placed on the fundamental principles upon which this government is founded and the machinery by which these principles are effected.

420. INTERNATIONAL RELATIONS. *Mr. Range.*

An introductory study of the forces and practices dominating contemporary international political relations.

421. INTERNATIONAL ORGANIZATION. *Mr. Range.*

The principles, organizations, and functions of international governmental organizations such as the United Nations, Organization of American States, Council of Europe, the Specialized Agencies, the International Judiciary, etc.

424. (LAW) INTERNATIONAL LAW. 4 hours. *Mr. Cohn.*

Selected topics on international law; its nature, development and relation to municipal law; sovereignty, birth, recognition and death of nations; continuity of state personality; succession, domain, nationality; international cooperation and adjustment of differences under special consideration of the Charter of the United Nations.

481. POLITICAL INSTITUTIONS. *Mr. Askew.*

The nature and functioning of political institutions such as constitutions, legislative bodies, executive offices, and their strength and weaknesses in the maintenance of constitutional government.

820. READING AND RESEARCH IN INTERNATIONAL POLITICS. Prerequisite: Political Science 420 or permission of instructor. *Mr. Range.*

An advanced seminar in the principles and practices of international politics.

821. READING AND RESEARCH IN INTERNATIONAL ORGANIZATION. Prerequisites: Political Science 420 and 421 or permission of instructor. *Mr. Range.*

An advanced seminar in the principles, structure and practices of international governmental organizations.

PUBLIC ADMINISTRATION

434. (ECONOMICS) PUBLIC FINANCE. *Mr. Ellis.*

A general consideration of American public expenditures, revenues and fiscal administration.

441. (ECONOMICS) PRINCIPLES OF PUBLIC ADMINISTRATION. *Mr. Gibson and Mr. Hughes.*

General principles and problems of administrative organization, relationships, and controls in the United States. Problems of personnel, finance, administrative law, and the growth and significance of administrative legislation and adjudication. The administrative process is considered in its democratic setting as it is influenced by political and social beliefs, legislatures, and pressure groups.

442. (ECONOMICS) PUBLIC PERSONNEL ADMINISTRATION. *Mr. Gibson and Mr. Hughes.*

Procedures, and problems of governmental personnel administration. Human relations aspects. Field trips and field studies of governmental agencies are employed to give the students first hand knowledge of governmental personnel administration.

443. (ECONOMICS) PUBLIC FINANCE ADMINISTRATION. *Mr. Gibson and Mr. Hughes.*

Activities involved in the collection, custody and expenditure of public revenue, namely: the assessment and collection of taxes, public borrowing and debt administration, the preparation and enactment of the budget, financial accountability and the audit.

444. (ECONOMICS) GOVERNMENT AND BUSINESS. *Mr. Smith.*

A general survey of the economic aspects of business regulations by the government, with special reference to regulatory developments and methods in the United States; other activities affecting business in general, such as extension of loans and subsidies, maintenance of fact-finding agencies and government-owned corporations.

492. (ECONOMICS) ADMINISTRATIVE LAW. *Mr. Saye.*

The legal principles and practical doctrines involved in the work of administrative agencies vested with quasi-legislative or quasi-judicial powers.

PSYCHOLOGY

(Meigs Hall, North Campus, unless otherwise specified)

Head: James. Staff: Gray, Hammes, Hodge,
Melton, Osborne, Peacock, Young.

All courses in the Psychology Department are in the Biological Science Division except Psychology 101, 371, 373, 414, 440, 464, 582, 586, 587, 592, 593, and 594, which are in the Social Science Division. Psychology 101 is a prerequisite to all other courses in Psychology except Psychology 258. It is recommended that no freshman be registered for psychology during his first quarter. Psychology 322 is required of all psychology majors.

99. READING AND STUDY SKILLS. No credit. Five class meetings including two hours individual practice. *Mr. Melton.*

A non-credit course designed for improving reading skills to a level adequate for college study. Includes study and practice of: comprehension of varied materials; adapting speed of reading to purpose and materials; vocabulary skills; and efficient use of study time.

101. ELEMENTARY PSYCHOLOGY. *Staff.*

A beginning course in psychology, given without laboratory experiments. It includes the fundamental facts and laws of psychology and indicates something of the various problems and fields of psychology, its relation to other fields, and some of the more important applications of psychology.

258. THE PSYCHOLOGY OF ADJUSTMENT. *Mr. Hammes.*

A course in mental hygiene, dealing with the appropriate and inappropriate reactions to frustration and stress. Solutions of conflicts, fears, and anxiety. Building emotional stability and preventing mental illness.

295. INTRODUCTION TO CHILD DEVELOPMENT. (see Home Economics 295.)

322. EXPERIMENTAL PSYCHOLOGY. Three periods for discussion, demonstration, and lecture and two double laboratory periods. *Mr. Hodge.*

An introduction to experimental methodology in the study of behavior. Both individual and group experiments are conducted to illustrate psychophysics, psychological scaling techniques, and the principles of experimental design. Some familiarity with elementary statistics is recommended.

371. APPLIED PSYCHOLOGY. *Mr. Gray.*

A survey of the applications of the principles of psychology to social, professional, industrial, and educational fields.

373. (SOCIOLOGY) SOCIAL PSYCHOLOGY. 3 hours. *The Staff.*

The social aspects of psychology: the origin and development of social behavior, interaction of individuals within groups, social motivation, suggestion, and attitudes. Methods of research in social psychology with special attention to use of experimental techniques.

374. GENETIC PSYCHOLOGY. *Miss Young.*

The evolution of structure and behavior. The problems of childhood, maturity, and senescence as integral parts of the life cycle are given careful study.

Unless otherwise stated, ten senior division credit hours in psychology are prerequisite to the following courses, for graduate credit.

403. TEST CONSTRUCTION. 2 hours. Prerequisite: Mathematics 356 or equivalent. *The Staff.*

Theory of psychological measurement, criterion development, concepts and methods of determination of reliability and validity writing of test items.

404. HISTORY OF PSYCHOLOGY. 3 hours. Prerequisite: 5 additional hours credit in senior division in psychology. *Mr. Peacock.*

An overview of the history of psychology and recent systematic development.

405. SYSTEMS OF PSYCHOLOGY. 3 hours. Prerequisites: Psychology 101 and 404. *The Staff.*

An investigation of the theoretical systems in psychology since 1880, with emphasis upon the types of research which these systems have produced.

414. PSYCHOLOGY OF PERSONNEL—AN INTRODUCTION. *The Staff.*

A survey of the entire area of personnel psychology applied to the fields of business, industry and government.

415. PSYCHOMETRICS. *Mr. Osborne.*

A course designed to give the student an introduction to the essentials of psychological testing with experience in administering, scoring, and interpreting tests including those of scholastic achievement, mental ability, scholastic aptitude, interest and personality.

416. INDIVIDUAL PSYCHOLOGICAL TESTING: WECHSLER-BELLEVUE METHOD. 3 hours, Prerequisite: Psychology 415. *Mr. Osborne.*

Training in the administration, scoring and interpretation of the Wechsler Scales. All students are required to achieve a minimum competency in the use of these scales for both children and adults but the major part of the practical work may be in the age range selected by the student.

418. INDIVIDUAL PSYCHOLOGICAL TESTING: TERMAN-MERRILL SCALES. 2 hours. Prerequisite: Psychology 415. *Mr. Osborne.*

Training in the administration, scoring and interpretation of the Terman-Merrill revision of the Binet Scales. All students are required to achieve a minimum competency in the use of these scales for both children and adults but the major part of the practical work may be in the range selected by the student.

419. INTRODUCTION TO PROJECTIVE TECHNIQUES: RORSCHACH METHOD. 3 hours. Prerequisites: Psychology 415, 416, and 423. *Mr. Osborne.*

An introduction to the theory, administration, scoring and interpretation of Rorschach Method. The class is limited and is open only to advanced students with adequate background in psychological measurement and theory of personality. Registration only by permission of the instructor.

420. INTRODUCTION TO PROJECTIVE TECHNIQUES: THEMATIC APPERCEPTION TEST. 2 hours. Prerequisites: Psychology 415, 416, and 423. *Mr. Osborne.*

An introduction to the theory, administration, scoring, and interpretation of the Thematic Apperception Test. The class is limited and is open only to advanced students with adequate background in psychological measurement and theory of personality. Registration only by permission of the instructor.

423. PSYCHOLOGY OF THE ABNORMAL. Lectures, discussions and clinical work. *Miss Young.*

The study of the various forms of mental illness and maladjustment, including mental deficiency, and anti-social behavior. The course is planned especially for students going into clinical psychology, medicine, nursing, social work, or special types of educational work.

440. SOCIAL PSYCHOLOGY: ATTITUDE MEASUREMENT (SOCIOLOGY). 2 hours. Prerequisite: Mathematics 356 or equivalent. *The Staff.*

Theories and methods of construction of attitude scales: This will consist of an examination of the assumptions and procedures involved in the Thurstone, Likert, and Guttman scaling techniques.

451. THEORIES OF PERSONALITY. *Mr. Gray or Mr. Hammes.*

The biological and psychological foundations of personality will be studied. Emphasis will be placed on the integrated aspects of personality.

452. THEORIES OF MOTIVATION. 2 hours. *Mr. Hammes.*

Cognitive and neurological theories of motivation. Current experimental research in the area of motivation.

453. INDIVIDUAL DIFFERENCES. 3 hours. Prerequisite: Mathematics 356 or equivalent. *The Staff.*

The nature and interrelationships of psychological traits; the relationships between behavioral and structural characteristics; theories of constitutional types; the distribution of individual differences; effects of heredity, growth, and training.

456. PSYCHOLOGY OF SENSATION. 2 hours. Prerequisite: Psychology 322. *Mr. Peacock.*

The visual, auditory, olfactory, gustatory, cutaneous, kinaesthetic, and vestibular senses are investigated. Sensory thresholds are examined by psychophysical methods, supplemented by an analysis of neurological theory.

457. PSYCHOLOGY OF PERCEPTION. 3 hours. Prerequisite: Psychology 322. *Mr. Hammes.*

The phenomena of attention, apprehension, apparent movement, perceptual closure, perceptual constancy, perceptual judgment, and time and space perception are investigated. Empirical and experimental demonstrations are conducted, followed by a study of the various theories of perception.

458. STATISTICS IN PSYCHOLOGICAL RESEARCH. 3 hours. Prerequisite: Mathematics 356 or permission of instructor. *Mr. Hodge.*

A study of the basic concepts and techniques in descriptive and sampling statistics. Applications of statistics in psychological research.

459. MENTAL HYGIENE. *Mr. Hammes and Miss Young.*

An advanced course dealing with mental hygiene problems, especially of children and adolescents; problems of different stages of maturation adjustments in the home, school and play group; and special needs in cases of retardation and delinquency.

462. CLINICAL PSYCHOLOGY. Prerequisites: At least one of the following courses: Psychology 423, 416 or 418. *Miss Young.*

This is an introductory course, with emphasis upon basic concepts and principles. The practical aspects will be related to the work of the University of Georgia Clinic, which will provide an opportunity for a study of behavior deviations found in children.

463. **CLINICAL PSYCHOLOGY.** Four hours of discussions and lectures, and two or three hours of clinical work. Prerequisite: At least two of the following courses: Psychology 416, 418, 423, 462, or permission of instructor. *Miss Young.*

An advanced course designed to give the student a greater understanding of the problems of human adjustment. Ethical and professional standards also will be considered. The practical aspects will be related to the work of the University of Georgia Clinic.

464. **ADVANCED SOCIAL PSYCHOLOGY.** 3 hours. Prerequisite: Psychology 373. *The Staff.*

Development and importance of language and communication in social behavior; concepts and methods of studying decision-making; the role of motivation, frustration, and conflict in social processes.

480. **PHYSIOLOGICAL PSYCHOLOGY.** 3 hours. Prerequisites: 10 hours in biology. *Mr. James.*

In this course the personality is viewed as the integration of the morphological, physiological, and psychological aspects of the organism. The relationship between the internal environment and such behaviors as food intake control; mating behavior; neural action; emotion; hibernation; sleep and activity; etc.

481. **COMPARATIVE PSYCHOLOGY.** 3 hours. Prerequisite: 10 hours in biology. *Mr. James.*

The course begins with an analysis of the structure and behavior of the amoeba and continues on through the animal series to man. The integration of structure, physiological processes and behavior are emphasized throughout the course, resulting in a more thorough understanding of the adjustment processes.

490. **DEVELOPMENT OF THE YOUNG CHILD.** Three lectures and four laboratory periods in the Nursery School. *Miss McPhaul and Miss Young.*

A study of the physical, mental, emotional, and social development of the pre-school child, the environmental factors influencing the development of the young child, with emphasis upon techniques of guidance. Planned to meet requirements of teachers of home economics in high schools; desirable also for teachers of elementary grades.

582. **(BUSINESS ADMINISTRATION) EMPLOYMENT METHODS: TESTING.** 3 hours. Prerequisites: Statistics. *Mr. Gray.*

This course will consist of taking tests and interpreting the scores in reference to specific employment situations. The student will learn the values and limitations of tests, as well as how to validate them in new situations.

586. **(BUSINESS ADMINISTRATION) JOB EVALUATION.** 3 hours. Prerequisites: Statistics. *Mr. Gray.*

A study of various methods of Job Analysis and Job Evaluation. The advantages and disadvantages of the various systems in relation to the types of work situations are considered and actual jobs analyzed and evaluated.

587. **(BUSINESS ADMINISTRATION) WORK AND EFFICIENCY.** 3 hours. Prerequisites: Mathematics 356 or Economics 312. *Mr. Gray.*

A study of human aptitudes in relation to work and equipment design. Lighting, noise, ventilation, motor activities, body orientation, machine controls, etc. in relation to human limitations are studied.

592. **(BUSINESS ADMINISTRATION) EMPLOYMENT METHODS: INTERVIEWING.** 2 hours. Prerequisites: Statistics. *Mr. Gray.*

A study about employment interviewing as well as practice in both interviewing and being interviewed. The limitations of this procedure as a basis for critical decisions.

593. **(BUSINESS ADMINISTRATION) WORK MEASUREMENT.** 2 hours. Prerequisites: Mathematics 356 or Economics 312. *Mr. Gray.*

Methods of measuring work and the factors which affect the duration of work with special emphasis on standardized time tables. Principles of work methods and job layouts.

594. **(BUSINESS ADMINISTRATION) MERIT RATING.** 2 hours. Prerequisites: Mathematics 356 or Economics 312. *Mr. Gray.*

Study ways of determining the worth of employees on jobs where quantitative measurement is impossible. Methods of determining traits for rating, of weighting traits, and of rating traits.

800. **SEMINAR IN PSYCHOLOGY.** Non-credit. Prerequisite: Undergraduate major in Psychology. *The Staff.*

Weekly meetings for the full year devoted to discussion of current literature and problems dealing with research in Psychology.

801. **ADVANCED GENERAL PSYCHOLOGY.** Prerequisite: Undergraduate major in Psychology. *Mr. Peacock.*

Advanced study of the topics of motivations and emotions with source material from the current literature.

802. **ADVANCED GENERAL PSYCHOLOGY.** Prerequisite: Undergraduate major in Psychology. *Mr. Peacock.*

Advanced study of the subjects of sensation, perception, learning, and intelligence with source material from the current literature.

805. **THEORIES OF LEARNING.** *Mr. James.*

An analysis of the major theories of learning current among psychologists doing research in the field. A study of the connectionism of Thorndike, and the theories of Guthrie, Hull, Skinner, Kohler, Lewin, Wheeler, and Tolman. An attempt is made to determine the aspects common to all theories and to understand their differences. Experimental procedures used by each psychologist.

816. **PSYCHOLOGY SEMINAR.** 2-24 hours. Prerequisite: Undergraduate major in psychology or equivalent. *The Staff.*

The seminars are planned around the interest and needs of the student. There are seminars in Learning Theory; Motivation; Emotion; Complex Human Learning; Sensation; Perception; Psychopharmacology; Methods and Techniques of Animal Research; Physiological Processes of Behavior; Comparative Psychology; Conditioning; Industrial and Human Engineering; Testing and Measurement; Clinical Psychology; and Advanced Social Psychology.

860. **EXPERIMENTAL DESIGN.** 3 hours. Prerequisites: Psychology 322 and 458. *Mr. Hodge.*

Problems encountered in the planning of psychological experiments. A detailed consideration of the nature of scientific psychology, the logic of psychological measurement, and general experimental methodologies.

861. **PSYCHOPHYSICAL METHODS.** 2 hours. Prerequisites: Psychology 322 and 458. *Mr. Hodge.*

A detailed study of the methods appropriate to investigation of the sensory and perceptual processes.

892. **(HOME ECONOMICS) BEHAVIOR PROBLEMS IN CHILDREN.** Prerequisite: Psychology 490, Home Economics 490, or Education 452. *Miss Young and Miss Sheerer.*

The child's adjustment to his environment, with a consideration of the causes, treatment, and prevention of behavior problems. Utilization of case materials. Research problems in the field will be carried out by the student.

900. **SPECIAL PROBLEMS.** 3-30 hours. Prerequisite: Graduate standing in psychology. *The Staff.*

930. **THESIS IN PSYCHOLOGY.** 5 to 50 hours. *The Graduate Staff.*

THE UNIVERSITY OF GEORGIA CLINIC

FLORENE M. YOUNG, Director

The clinical work carried on by the Department of Psychology includes diagnostic and therapeutic services of a psychological nature.

The main purpose of the Clinic is to provide assistance to students who need or desire it, but a limited number of non-students may be scheduled. Those desiring services should apply to the Director.

The Clinic maintains close cooperation with the University physician and with local physicians, and collaborates with the Guidance center of the University.

RUSSIAN

(See Modern Foreign Language)

SOCIAL SCIENCE

(Academic Building, North Campus)

Given under the general direction of the Chairman of the Division of Social Science.

104. CONTEMPORARY GEORGIA. *The Staff.*

A discussion and analysis of certain aspects of Georgia's population, its characteristics and trends; its relative standing in various statistical measures of economic and social wellbeing; its natural resources and economic accomplishments from the standpoint of agriculture, industry, and commerce; and its governmental organization and problems.

SOCIOLOGY AND ANTHROPOLOGY

(Academic Building, North Campus)

Head: Bowers. Staff: Belcher, Brown, Bryant, Chambliss, Dean, Kelly, Payne, Silverman, Wallace, Williams.

105. INTRODUCTORY SOCIOLOGY. *The Staff.*

An introduction to the sociological analysis of society, its origins, structure, change and problems. Emphasis is on the nature of culture, social interaction, social groups and social institutions.

H-106 (206). INTRODUCTORY SOCIOLOGY (HONORS). (Not open to students who have credit for Sociology 105). *Mr. Bowers* and *Mr. Payne.*

A general introduction to the fundamental concepts, theories, methods, and major sub-fields of sociology. Among other purposes will be that of showing the relationships of sociology to other fields of study.

Note: All 400 and 500 courses have as a prerequisite Sociology 105 or the consent of the instructor.

SPECIAL FIELDS OF SOCIOLOGY

360. CONTEMPORARY SOCIAL PROBLEMS. *Miss Dean* and *Mr. Silverman.*

A study of both general and special problems of our times. The problems are considered in the social and cultural setting in which they occur. The emphasis is upon people and their behavior.

380. INDUSTRIAL SOCIOLOGY. *Mr. Bowers, Mr. Bryant* and *Mr. Payne.*

A study of human relations in the industrial setting and the relationship of growing, operating or declining industrialization to the community and the larger society.

409. SOCIAL CHANGE. *Mr. Bowers.*

The nature and theories of social change; causes and types of social change; the cultural lag theory; the social effects of inventions in the modern world; the adjustments of contemporary social institutions to technological change; and some discussion of the impact of future technology on society.

427. PERSONALITY AND SOCIAL ADJUSTMENT. *Mr. Brown, Mr. Chambliss, Mr. Payne* and *Mr. Williams.*

Foundation and development of personality; mechanisms of integration and adjustment; roles of culture, groups and language; concepts of self; types and theories of personality; divergent personalities.

431. PRINCIPLES OF RURAL-URBAN SOCIOLOGY. *Mr. Belcher, Mr. Payne* and *Mr. Williams.*

The fundamental differences between rural and urban societies and the interrelationship between these two large groups of people. How personalities growing up in the different environments are affected, and some of the problems that arise because of the differences and conflicts between rural and urban interests.

433. POPULATION THEORY AND PROBLEMS. *Mr. Belcher.*

Theory and dynamics of population growth; population measure; migration; composition; differential fertility; theories of the quality and optimum population; economic and social aspects of our population.

435. COMMUNITY ORGANIZATION. *Mr. Payne* and *Mr. Williams.*

A study of the community as a unit of social organization; contemporary trends in contemporary organization and planning.

443. SOCIAL MOBILITY. *Mr. Bowers* and *Mr. Williams.*

The nature of social status systems, including the means by which people obtain and change their positions in the systems. Topics include: criteria of status evaluation; social classes and castes; differential life-chances; mobility ladders and achievement aspirations.

461. (HOME ECONOMICS) THE FAMILY. *Mr. Chambliss.*

Family study from many different angles, utilizing data from the fields of anthropology, individual and social psychology, history, sociology, economics and psychiatry.

481. CRIMINOLOGY. *Mr. Payne.*

The study of criminal behavior and its treatment. The development of criminal behavior in contemporary society and the efforts of the individual to adjust to the demands made upon him. The treatment of the offender by means of probation, imprisonment, and parole.

490. SENIOR SEMINAR IN SOCIOLOGY. (Open to undergraduates only). Prerequisites: Senior standing and 15 hours in senior college Sociology and Anthropology courses. Required of all majors in Sociology, unless specifically exempted by the head of the department. *The Staff.*

A program of semi-independent study including reading, writing, and discussions, treating current literature and developments in the field of sociology; designed to assist the senior in integrating his sociological background and using it creatively. data. Required of all majors in sociology unless specifically exempted by the head of the department.

SOCIAL THEORY AND RESEARCH METHODS

356. QUANTITATIVE METHODS IN SOCIOLOGY. *Mr. Belcher and Mr. Payne.*

An introduction to the scientific method in social research: elementary considerations in research design; the interview, questionnaire, participant observation and human document as sources of social data; qualitative and quantitative techniques of analysis and inference, including the development of techniques for measuring social data.

420. METHODS OF SOCIAL RESEARCH. Required of all majors in Sociology, unless specifically exempted by the Head of the Department. *Mr. Belcher and Mr. Bowers.*

An introduction to the scientific method in social research; elementary considerations in research design; the interview, questionnaire, participant observation and human document as sources of social data; qualitative and quantitative techniques of analysis and inference, including the development of techniques for measuring social data.

421. EARLY SOCIAL THOUGHT. *Mr. Chambliss.*

A survey of social thought from Hammurabi to Comte. This course affords an introduction to social thought prior to the emergence of the modern social sciences.

422. DEVELOPMENT OF SOCIOLOGICAL THEORY. *Mr. Chambliss.*

A survey of some of the most important systems in the development of sociological theory.

426. AMERICAN SOCIOLOGY. Required of all majors in Sociology, unless specifically exempted by the Head of the Department. *Mr. Williams.*

A complete coverage of the origin and development of sociology in the United States, from Ward to the present. Special emphasis is placed on the approaches to the subject and recent trends in the field will be studied and analyzed. Required of all majors in sociology unless specifically exempted by the head of the department.

456. TECHNIQUES OF POPULATION ANALYSIS. *Mr. Belcher.*

Techniques for analyzing the composition of the population; constructing life tables; measuring vital processes; and estimating population and migration.

SOCIAL WORK

315. THE FIELD OF SOCIAL WORK. *Miss Dean.*

An introductory course to the various aspects of present-day social work. Considers family and children's services, behavior clinics and case work approach to social problems, the courts, probation and parole, medical social services, group work, community organization, public assistance, and social security. Class discussion and collateral reading.

470. INTRODUCTION TO PUBLIC WELFARE ADMINISTRATION. *Miss Dean.*

Historical development of public welfare services and their administration. Reference is made to the underlying problems with which present day public welfare departments deal; special attention is paid to administration at local, state, and federal levels.

552. PRINCIPLES AND METHODS OF SOCIAL CASEWORK. *Miss Dean.*

Methods, objectives, competencies, limitations of social casework in its varied settings. Cases studied include school, psychiatric, correctional, child welfare, family, and medical problems.

GRADUATE COURSES IN SOCIOLOGY

800. SPECIAL TOPICS IN SOCIOLOGY. Prerequisite: Undergraduate major in sociology. *The Staff.*

Opportunity to do intensive study, on an individual basis, in the field of the graduate student's major interest. Required of graduate students in sociology.

805. ADVANCED SOCIOLOGICAL ANALYSIS. Prerequisites: Sociology 622 and graduate standing. *Mr. Belcher.*

Concerned with how substantive sociological theory is being developed, clarified, and expanded. Specific attention will be devoted each year to selected areas of sociological interest such as communication, social structure or social change, the choices varying in terms of the interests of the participants. Required of graduate students in Sociology.

808. ADVANCED PRINCIPLES OF SOCIOLOGY. Prerequisite: Ten hours of courses in sociology numbered over 400. *Mr. Chambliss.*

A critical examination of the conceptual framework of sociology. Required of graduate students in sociology.

830. SURVEY RESEARCH METHODS IN SOCIAL SCIENCES. Two lectures and one three hour laboratory period per week. Prerequisite: Undergraduate major in a social science. *Mr. Bowers.*

Objectives, techniques and uses of the sample survey in social research as exemplified in public opinion studies, attitude and informative surveys, and the evaluation of institutional and community programs. Required of graduate students in sociology.

840. SEMINAR IN SOCIOLOGY AND ANTHROPOLOGY. Non-credit. Prerequisite: Undergraduate major in sociology or anthropology, or in another social science plus ten hours of courses in sociology or anthropology numbered over 400. *The Staff.*

Bi-weekly meetings throughout the academic year devoted to discussions of current literature in sociology and anthropology. Required of graduate students in sociology while in residence.

930. THESIS IN SOCIOLOGY, 5 to 50 hours. *The Staff.*

SOCIAL ANTHROPOLOGY

102. MAN AND HIS CULTURE. *Mr. Kelly and Mr. Wallace.*

In introduction to the study of man as a cultural animal, the development of human societies from preliterate beginnings, the rise of complex social organizations with an outline study of the major cultures developed by man.

310. INTRODUCTORY ETHNOLOGY. Prerequisite: Anthropology 102 or introductory course in another social science. *Mr. Kelly and Mr. Wallace.*

An introduction to the basic principles of ethnology, the historical and analytical study of primitive cultures. A number of primitive cultures will be surveyed. These will be selected to give the fullest possible coverage in terms of area, race, and culture type.

344. LATIN-AMERICA: PEOPLES AND INSTITUTIONS. *Mr. Wallace.*

The study of contemporary Latin-America peoples and institutions in their community setting; special attention is devoted both to the original impact of Western civilization on the indigenous Indian communities of Central and South America, and to recent social changes incident to the introduction of modern agricultural and industrial technology.

400. (ECONOMICS) EARLY ECONOMIC SYSTEMS. Prerequisites: Anthropology 102 and Economics 105. *Mr. Kelly and Mr. Wallace.*

The economic life of primitive peoples. Concepts and principles of classical economics, developed in Western civilization, are studied in the light of practices and thought among primitive groups in Asia, Africa, and the South Pacific.

ARCHAEOLOGY AND PHYSICAL ANTHROPOLOGY

203. HUMAN ORIGINS. *Mr. Kelly.*

A study of the fossil history of mankind—Pleistocene to recent geological periods. The students will gain some familiarity with the main craniometric and anthropometric techniques used in racial studies.

204. THE RACES OF MAN. Prerequisite: Anthropology 203. *Mr. Kelly.*

A study of the development of modern man into races through the sub-species specialization of Homo Sapiens in the late Pleistocene and Holocene geological times. Human racial hybridism will receive considerable attention in critical world areas where new blended types of man have developed.

211. NORTH AMERICAN ARCHAEOLOGY. Prerequisite: Anthropology 102.
Mr. Kelly.

An introductory course in the archaeology of North America. Will survey the total range of North American prehistory from 10,000 B. C. to the 17th century A. D., tracing development in each of the major culture areas from the early hunting gathering stage to the cultural peaks just before intensive white contact. Special emphasis will be placed on the mechanics of cultural change as discernible by the methods of prehistory.

301. OLD WORLD ARCHAEOLOGY. Prerequisite: Anthropology 203 or 102.
Mr. Kelly.

The development of culture, beginning with the oldest remains of the Stone Age, extending through the Stone, Bronze, and Iron Ages.

401. ARCHAEOLOGY OF THE SOUTHEASTERN UNITED STATES. Prerequisite: Anthropology 301. *Mr. Kelly.*

A detailed study of the literature dealing with the archaeology of the Mississippi River basin and contiguous areas in the central United States, the Northeastern and Southeastern woodlands, with particular reference to the description of archaeological remains in the American Southeast and the Caribbean region.

420. FIELD AND LABORATORY METHODS IN ARCHAEOLOGY. Prerequisite: Anthropology 211. *Mr. Kelly.*

Methods of archaeological reconnaissance, survey excavation, laboratory preparation and analysis of collected materials; study to be pursued in scheduled field expeditions to assigned archaeological sites in Georgia.

801, 802. RESEARCH IN SOUTHEASTERN ARCHAEOLOGY. 5 hours each. Prerequisites: 20 hours of anthropology with a 400-course in American ethnology or archaeology. *Mr. Kelly.*

The student will pursue graduate research on assigned materials of original archaeological context in the existing collections of the University, or will carry out field excavations on an archaeological site, or unit of exploration or survey, preparing all field recordation and a completed report on the work.

JOINT-LISTED COURSES OF OTHER DEPARTMENTS

293. FAMILY RELATIONS. (See Home Economics 293)

373. SOCIAL PSYCHOLOGY. (See Psychology 373)

440. SOCIAL PSYCHOLOGY: ATTITUDE MEASUREMENT. (See Psychology 440).

SPANISH

(See Modern Foreign Language)

SPEECH AND DRAMA

(Fine Arts Building, North Campus: LeConte Hall, North Campus)

Head: Ballew. Staff: Ainsworth, Camp, Collins, Everett, Fear, Kahan, Luper, Popovich, Weinman.

GENERAL SPEECH

108. FUNDAMENTALS OF SPEECH. *The Staff.*

Study of the fundamental principles necessary to the development of an acceptable speaking voice and an effective informal conversational style.

109. BUSINESS AND PROFESSIONAL SPEECH. 4 hours. *Mr. Fear.*

Analysis of various speaking situations, particularly oral reports, interviews and conferences. Study of the factors determining group productivity and problem solving.

110. SPEECH FOR FOREIGN STUDENTS. *Mr. Fear.*

Special course for students learning English as a second language. Intensive study and drill in American English pronunciation and listening comprehension. Required course for all foreign students who fail to pass screening examination in oral English.

209. PHONETICS. Prerequisite: Speech 108. *Mr. Everett.*

Analysis of movements involved in production of the sounds of English both in isolation and in connected speech, including significant regional and foreign dialect variants.

250. PUBLIC SPEAKING. *The Staff.*

Construction and delivery of various types of extemporaneous speeches with emphasis on the organization of speeches, the principles of attention, the logical and psychological principles of speaking and thinking, and practices in delivery.

350. ARGUMENTATION AND DEBATE. *Mr. Everett.*

Principles of logical proof as applied in argumentation and debate. Theory and practice in analysis, investigation, brief-making, refutation, evidence, forms of argument, fallacies, and debate procedures.

386. ORAL INTERPRETATION OF PROSE AND POETRY. Prerequisite: Speech 108 or consent of the instructor. *Mr. Popovich.*

A study of the techniques of literary analysis for effective oral reading of lyric and narrative literature and the development of vocal flexibility through a variety of problems in phrasing and emphasis.

387. ORAL INTERPRETATION OF DRAMATIC LITERATURE. Prerequisite: Speech 108. *The Staff.*

A study of the theory, techniques, and principles of interpretation of drama from the points of view of the oral interpreter and actor. Development of oral skills through the study of selected plays and monologues.

412. ADVANCED PHONETICS. Prerequisite: Speech 209. *The Staff.*

A study of the anatomy and physiology of breathing, phonation, resonance, and articulation for speech; a study of the physical phenomena in voice and speech. Advanced practice in transcribing variations of speech into phonetic symbols.

DRAMA

101. INTRODUCTION TO DRAMA AND THEATRE. Lecture-laboratory course. *Mr. Collins.*

A general introductory course in the arts of the theatre; designed for freshmen and transfer students. Each student will be expected to work as assigned on various productions of the University and Laboratory Theatres.

102. ACTING. Lecture-laboratory course. *Mr. Weinman.*

The fundamentals of acting techniques, including pantomime and improvisations. Class lectures, exercises, and reports. Individual and group assignments of various acting techniques and procedures. Each student is required to participate in the productions of the Laboratory Theatre.

103. ADVANCED ACTING. Lecture-laboratory course. Prerequisite: Drama 102 or consent of the instructor. *Mr. Kahan.*

Continuation of exercises in acting techniques and procedures. Particular emphasis on characterization, line interpretation, and tempo. Each student is required to participate in the productions of the Laboratory Theatre.

222. SURVEY OF THEATRE HISTORY. *Mr. Ballew.*

Comprehensive survey and general approach to the history of drama and theatre, providing the basis for the appreciation of drama as a fine art. Lectures, reading of plays, and student reports. Particular emphasis on trends in contemporary American and European theatre.

334. SCENE BUILDING AND PAINTING. Lecture-laboratory course. *Mr. Collins.*

Planning the construction of stage settings; scene building, painting, rigging, and handling; drafting laboratory, use of scale rule and reading floorplans and construction drawings. Practical laboratory assignments as members of University Theatre and Laboratory Theatre crews.

400. PLAYWRITING. Prerequisites: Two senior division courses in English or classics, or journalism or drama. *The Staff.*

Elementary laboratory course in playwriting, including study and practice in writing for stage, radio and television. Plays that merit production are presented in the Laboratory Theatre.

420. HISTORY OF THE THEATRE. Prerequisites: Two senior division courses in English or classics or drama. *Mr. Kahan* and *Mr. Popovich.*

The development of the physical theatre and the growth of drama studied from the beginning of dramatic literature in Greece through *comedia dell' arte*. Representative dramatists of each period and their important contributions to dramatic literature are included from Aeschylus to Shakespeare.

421. HISTORY OF THE THEATRE. Prerequisites: Two senior division courses in English or classics or drama. *Mr. Kahan* and *Mr. Popovich.*

The development of the physical theatre and the growth of drama studied from the Elizabethan period to the present. Representative dramatists of each period and their important contributions to dramatic literature are included from Shakespeare to Girardoux.

429. PLAY ANALYSIS. *Mr. Kahan and Mr. Popovich.*

An intensive examination of selected plays and a study of the problems of plot, characterization, and dialogue as they relate to theatre production.

511. THEATRE MANAGEMENT. Prerequisite: Two senior division courses in drama. *Mr. Camp.*

A critical examination of theatre management. A survey of the organization of various non-professional theatres and promotional and managerial procedures.

531. TECHNICAL PROBLEMS. Prerequisites: Two senior division courses in drama. *Mr. Camp.*

Advanced study of the theory and styles of design (lighting, setting, costuming) in the theatre with special emphasis on the techniques of collaboration between director and technical director.

535. SCENE DESIGN. Lecture--laboratory course. *Mr. Camp.*

Survey of history and principles of scene design. Laboratory includes development of designs for a play through sketches, floor plans, colored elevations, and scale models. Practical assignments as members of University Theatre and Laboratory Theatre crews.

536. STAGE LIGHTING. Lecture-laboratory course. *Mr. Camp.*

Study of problems of lighting in the theatre; lighting instruments, lighting control; operation of lighting equipment. Practical assignments in the University Theatre and Laboratory Theatre.

560. PLAY DIRECTING. *Mr. Ballew.*

A survey of the theory and practice of play directing in the modern theatre. It deals with the general philosophy of theatre practice, analysis of plays for production, play selection, and play casting. Each student makes a director's study of a specific play.

561. PLAY DIRECTING. Laboratory. *Mr. Ballew.*

The production of plays in the Laboratory Theatre with students in the course serving as directors for the productions. Each student will direct a one-act play during the quarter and submit a detailed director's prompt script of the production.

562. ADVANCED PLAY DIRECTION. Prerequisites: Two senior division courses in drama. *Mr. Ballew.*

Lectures, reports, and reading in contemporary drama and theatre, with particular emphasis on contemporary techniques of staging and direction.

801. SEMINAR IN DRAMA. Prerequisites: Three courses in speech, drama, or dramatic literature. *Mr. Ballew.*

Reading, reports, discussions of problems relating to theatre history and theatre aesthetics and the techniques of research in drama and speech. Required of all graduate majors.

RADIO AND TELEVISION

544. RADIO AND TELEVISION ACTING. Prerequisite: Two senior division courses in Speech, Drama or Radio-Television. *Mr. Weinman.*

Adopting fundamental principles of acting to the broadcasting media of radio and television. Emphasis on dramatic presentation, including puppet theatre in TV. Other on-campus acting or announcing (the audition, commercial, panel ad lib) only if student has not had it.

545. DIRECTING THE RADIO AND TELEVISION DRAMA. Prerequisite: Two senior division courses in Speech and Drama, or Radio-Television. *Mr. Weinman.*

Adopting fundamental principles of directing to radio and television. Casting, rehearsing and presenting original and professional non-royalty scripted dramas or cuttings from full-length dramas in laboratory studios.

546. ADVANCED PROJECTS IN RADIO AND TELEVISION DRAMA. Prerequisite: Two senior division courses in Speech, Drama or Radio-Television. *Mr. Weinman.*

Preparation and testing of dramatic material designed for educational television programs. Students will be assigned as writers, directors, technical directors, floor directors and actors, learning in the studio to handle special problems of dramatic presentation as they occur in an assigned series related to the humanities.

582. RADIO-TELEVISION PROGRAMMING. (Also offered as Journalism 582). Prerequisite: Journalism 580.

A study of programming with special emphasis on public service and the social aspects of radio and television. An examination of Peabody entries and winners.

583. RADIO-TELEVISION PERFORMANCE. (Also offered as Journalism 583). Prerequisite: Journalism 580.

A laboratory course wherein the student gets actual experience, under faculty supervision, in various aspects of broadcasting and telecasting. On-the-job experience will be supplemented by seminars and regular conferences with instructors.

585. TELEVISION. (Also offered as Journalism 585).

An introductory course concerned with the history, problems, and techniques of television. Theoretical instruction is supplemented by laboratory observation and work in nearby television stations.

SPEECH-DRAMA EDUCATION

530. PLAY PRODUCTION FOR THE HIGH SCHOOL TEACHER. Prerequisites: Two senior division courses in English, speech, or drama or secondary education. *Mr. Camp.*

Practical course in basic problems in high school dramatics. Specific problems of individuals are discussed. Course designed for the English teacher in charge of assembly programs, one-act plays, and senior class play.

591. TEACHING OF SPEECH AND DRAMA. Prerequisites: Two senior division courses in speech or drama or secondary education. *Mr. Popovich.*

Philosophy, methods, and problems of teaching speech and drama in elementary and secondary schools. Emphasizes the analysis of speech needs of children and techniques in implementing speech and drama activities for general speech improvement.

592. CREATIVE DRAMATICS FOR CHILDREN. Prerequisites: Two senior division courses in speech or drama or elementary education. *Mr. Popovich.*

A thorough study of theories, principles, and techniques in original dramatization for children. Preparation for students who wish to do creative work in drama with children.

593. SPEECH FOR THE ELEMENTARY SCHOOL. Prerequisites: Two senior division courses in speech and drama and/or elementary education. *Mr. Popovich.*

A study of the various speech activities for elementary school children.

SPEECH CORRECTION

310. SURVEY OF SPEECH PROBLEMS. *Mr. Ainsworth.*

The introductory course for those majoring in speech correction. Acts as a course for the classroom teacher who wishes to become informed about speech problems and as a course for students majoring in Speech-Drama. A study of the major etiology, and basic therapy for all types of speech defects, with a concentration on those most commonly found in the classroom.

470. DIAGNOSIS IN SPEECH CORRECTION. Prerequisites: Speech 310 and Speech 412. *Mr. Ainsworth.*

The theory, administration, and interpretation of tests and diagnostic procedures used in determining the nature, etiology of and therapy for speech defects. In addition to various methods for analyzing speech, attention is given to non-audiometric evaluation of hearing, examination of speech mechanism, special abilities related to speech, and to an understanding of how results of psychological tests are related to speech problems.

471. INTRODUCTION TO EVALUATION OF HEARING LOSS. Prerequisite: Speech 412. *Mr. Luper.*

The anatomy and basic psychophysics of hearing, the pathologies causing hearing loss, and basic theory of hearing evaluations. A survey of educational, psychological and medical rehabilitation for persons with a loss. Practice in pure tone audiometry.

474. (EDUCATION) VOICE AND ARTICULATION DISORDERS OF SPEECH. Prerequisite: Speech 470 or consent of instructor. *Mr. Luper.*

A study of etiology and the rationale and methods of therapy for functional and organic disorders of voice and articulation. The development of a therapeutic program and lesson plans. Supervised clinical practice in voice and articulation disorders with individuals and groups.

476. (EDUCATION) STUTTERING: ETIOLOGY AND THERAPY. Prerequisite: Speech 470. *Mr. Luper.*

A study of the major theories of causation of stuttering, whether based on neurophysiological, emotional, or learning factors. The development of an integrated therapy based on modern research in stuttering. Supervised clinical practice in individual and group therapy for stutterers.

535. (EDUCATION) DIRECTED INDIVIDUAL STUDY IN SPEECH CORRECTION. Prerequisites: Four courses in correction or consent of instructor. *The Staff.*

This course is designed to permit adaptation of the Speech Correction curriculum to the individual needs of mature students. A detailed outline of requirements must be prepared in conference by the student and instructor and approved by the Chairman of the Speech Correction Area, DEEC, and the Head of the Department of Speech and Drama.

536. (EDUCATION) DIRECTED INDIVIDUAL STUDY IN SPEECH CORRECTION. Prerequisites: Four courses in speech correction or consent of instructor. *The Staff.*

Outline of work must be approved in the same manner as for Speech or (Education) 535, but content must be different.

537. (EDUCATION) SEMINAR IN SPEECH PATHOLOGY. Prerequisites: Six courses in speech correction or four courses and the consent of the instructor. *Mr. Ainsworth.*

Intensive and thorough exploration of the research and theory in one or more areas of speech pathology. Specific content in any one quarter will be adapted to the particular needs of the student. Group projects may be carried in addition to readings and lectures.

835. (EDUCATION) ORGANIC DISORDERS OF SPEECH. Prerequisites: Six courses in Speech Correction. *Mr. Ainsworth.*

A detailed study of pathologies affecting speech, the speech test and therapy for cases of cleft palate, cerebral palsy, aphasia, laryngectomy, and retarded speech. Develops an understanding of the role of speech pathologist in the medical-psychological-educational speech therapist team for the rehabilitation of physically and emotionally handicapped individuals.

836. (PSYCHOLOGY) ANATOMY AND PSYCHOPHYSICS FOR SPEECH CORRECTION. Prerequisites: Six courses in speech correction or four graduate courses in psychology. *Mr. Ainsworth.*

An intensive study of the anatomy and physiology of speech and hearing and the psychophysics of hearing. Laboratory with models, charts, and specimens.

ZOOLOGY*

(Biological Science Building, Science Center)

Head: McGhee. Staff: Boyd, Byrd, Cleveland, Cosgrove, Golley, Hinton, Kent, Lauff, Martof, Nuttycombe, Odum, Pomeroy, Scott, Thomas.

No student will be allowed to take a senior division course in zoology unless he has a minimum grade of C or above in all prerequisite courses.

Students may, with the permission of the Head of the Department, credit the following courses toward a major in Zoology: Entomology 373 or Entomology 376, or Bacteriology 350.

101-102. HUMAN BIOLOGY. 10 hours. Five lecture-demonstration periods. *Mr. McGhee* and *Mr. Nuttycombe.*

The aim of this course is to give the student some acquaintance with biological principles and their application to the human organism.

124. PRINCIPLES OF ZOOLOGY. Three lectures and two double laboratory periods. Prerequisite: High school chemistry recommended. Not open to students having credit for Zoology 101-102. *Mr. Cosgrove* and *Mr. Hinton.*

A consideration of biological phenomena at the cellular level.

225. INVERTEBRATE ZOOLOGY. Three lectures and two double laboratory periods. Prerequisites: Zoology 124 or two other courses in biology. *Mr. Nuttycombe* and *Miss Thomas.*

A survey of the invertebrate animals, their biology, structure, and relation to other animals.

*Students may be held responsible for breakage in laboratory courses.

226. VERTEBRATE ZOOLOGY. Three lectures and two double laboratory periods. Prerequisites: Zoology 124 or two other courses in biology. *Mr. Martof.*

A study of the structure, body functions, interrelations, and natural history of the vertebrate animals.

312-313. HUMAN ANATOMY AND PHYSIOLOGY. 10 hours. Three lectures and two double laboratory periods. Prerequisites: Human Biology 101-102 and Chemistry 121-122 and a major in physical education or by permission of the instructor. *Mr. Kent.*

Systematic study of the anatomy and physiology of the human body.

350. NATURAL HISTORY OF VERTEBRATES. Three lectures and two double laboratory periods. Prerequisite: Zoology 226. *Mr. Scott.*

An introduction to local vertebrate fauna with emphasis on behavior, life history, ecology and systematics.

353. ECOLOGY. Three lectures and two double laboratory periods. Prerequisites: Zoology 225 and 226 or equivalent in another biological science. *Mr. Odum.*

A survey of basic principles of ecology and their application to the welfare of man, coordinated with a study of populations and communities in the field.

355. EMBRYOLOGY. Two lectures and three double laboratory periods. Prerequisite: Zoology 226. *Mr. Nuttycombe.*

An elementary course in embryology in which the chick is used to illustrate the basic principles of developmental anatomy.

356. COMPARATIVE ANATOMY OF THE VERTEBRATES. Two lectures and two triple laboratory periods. Prerequisite: Zoology 226. *Mr. Scott.*

The evolution of vertebrate organ systems.

357. ANIMAL HISTOLOGY. Three lectures and two double laboratory periods. Prerequisites: Zoology 225 and 226. *Mr. Byrd.*

A study of the tissues and their organization into organs and organ systems in animals.

361. HISTOLOGICAL TECHNIQUE. Five double laboratory periods. Open to majors in zoology only. *Mr. Byrd.*

A course offering training in the preparation of histological material, including practice in fixing, sectioning, staining, and mounting.

370. GENETICS. Three lectures and two double laboratory periods. Prerequisites: Botany 121-122 or Zoology 124 and 226. *Mr. Hinton.*

An introduction to the principles of biological inheritance.

372. PARASITOLOGY. Three lectures and two double laboratory periods. Prerequisites: Zoology 225 and 226. *Mr. Byrd.*

A comparative study of internal parasites of man and the lower animals.

381. ORNITHOLOGY. Two lectures and three double laboratory periods. Prerequisite: Zoology 225 and 226. *Mr. Odum.*

An introduction to the study of birds, emphasizing the identification, classification, life histories, and economic importance of Georgia species.

390. GENERAL PHYSIOLOGY. Three lectures and two double laboratory periods. Prerequisites: Zoology 124 and Chemistry 340b (Physics 229 recommended). *Mr. Cosgrove* and *Mr. Kent.*

An introduction to general physiological processes with laboratory emphasis on techniques.

401. ADVANCED GENETICS. Three lectures and two double laboratory periods. Prerequisites: Zoology 370 and one other senior division course in biology. *Mr. Hinton.*

The experimental bases of modern genetic theory with emphasis on chromosome mechanics, mutations and gene action.

403. MAMMALOLOGY. Three lectures and two double laboratory periods. Prerequisites: Two senior division courses in zoology. *Mr. Odum.*

A study of the taxonomy, distribution, ecology, and evolution of mammals with special emphasis on land mammals of the Southeast.

404. **HERPETOLOGY.** Three lectures and two double laboratory periods. Prerequisites: Two senior division courses in zoology. *Mr. Martof.* (Offered alternate years. Not offered in 1961-62).

An introduction to the taxonomy, distribution, ecology, behavior, and evolution of amphibians and reptiles, with special emphasis on those of the Southeast.

405. **ICHTHYOLOGY.** Three lectures and two double laboratory periods. Prerequisites: Zoology 356 and one other senior division course in zoology. *Mr. Scott.* (Offered in alternate years. Not offered in 1961-62).

A study of the taxonomy, distribution, ecology, and evolution of fishes with special reference to the marine and freshwater fishes of eastern North America.

429. **ENDOCRINOLOGY.** Three lectures and two double laboratory periods. Prerequisites: Zoology 390 and one other senior division course in Zoology. *Mr. Kent.* (Offered alternate years. Not offered 1961-62).

Physiology of the endocrine glands, their control of metabolism and reproductive cycles.

454. **LIMNOLOGY AND OCEANOGRAPHY.** Three lectures and two double laboratory periods. Prerequisites: Two appropriate senior division courses, plus a working knowledge of elementary physics, chemistry, and algebra. *Mr. Pomeroy* and *Mr. Scott.*

The physics, chemistry, and biology of lakes, streams and oceans.

456. **MARINE BIOLOGY.** Three lectures and two double laboratory periods. Prerequisite: Zoology 454. *Mr. Pomeroy.*

Populations of the oceans, their interactions and relations to the environment.

457. **FRESH WATER BIOLOGY.** Two lectures and three double laboratory periods. Prerequisite: Zoology 454. *Mr. Scott.*

Study of freshwater organisms, their identification, natural history and environmental relationships.

801. **PARASITIC PROTOZOA.** Prerequisite: Consent of the instructor. *Mr. McGhee.*

Experimental study of morphology, life histories, classification, and parasitic relationships of protozoan parasites of man and the lower animals.

803. **HELMINTHOLOGY.** Prerequisite: Consent of the instructor. *Mr. Byrd.*

A study of the morphology, life histories, classification, and parasitic relationships of the helminths.

807. **ADVANCED INVERTEBRATE ZOOLOGY.** Three lecture and two double laboratory periods. Prerequisite: Consent of the instructor. *Miss Thomas.*

Deals with the morphology, phylogeny and general biology of the acoelomate and pseudocoelomate phyla.

808. **ADVANCED INVERTEBRATE ZOOLOGY.** Three lectures and two double laboratory periods. Prerequisite: Zoology 807 or consent of the instructor. *Miss Thomas.*

Deals with the morphology, phylogeny and general biology of the coelomate phyla.

810. **EVOLUTION.** Five lectures. Prerequisites: course in genetics and three other courses in Zoology numbered above 300. *Mr. Martof.* (Offered alternate years. Offered in 1961-62).

A consideration of the meaning of evolution, the history of evolutionary thought, the origin of life, the mode of origin of hereditary variation, the origin of species, and the main lines of evolution.

819. **PHYSIOLOGY SEMINAR.** Credit 1 hour per quarter; maximum credit allowable, 6 hours. Prerequisite: Consent of the instructors. *Mr. Cosgrove* and *Mr. Kent.*

Weekly meetings reviewing recent research literature in physiology.

820. **CELLULAR PHYSIOLOGY.** Three lectures and two double laboratory periods. Prerequisites: Zoology 390 and Physical chemistry or consent of instructor. *Mr. Cosgrove.* (Offered alternate years. Offered in 1961-62).

A study, at the cellular level, of the nature and mechanisms of the fundamental physiological processes.

822. COMPARATIVE PHYSIOLOGY (METABOLIC SYSTEMS). Three lectures and two double laboratory periods. Prerequisite: Zoology 390. *Mr. Cosgrove*. (Offered alternate years. Not offered in 1961-62).

Physiology of nutrition, respiration and metabolism, circulation and excretion in animals.

826. COMPARATIVE PHYSIOLOGY (BEHAVIORAL SYSTEMS). Three lectures and two double laboratory periods. Prerequisite: Zoology 390. *Mr. Cosgrove*. (Offered alternate years. Not offered in 1961-62).

Properties and functions of nervous systems, receptors and muscles.

827. VERTEBRATE PHYSIOLOGY Three lectures and two double laboratory periods. Prerequisite: Zoology 390. *Mr. Kent*. (Offered alternate years. Offered in 1961-62).

A detailed consideration of the special physiology of vertebrates.

829. ADVANCED ENDOCRINOLOGY. Two lectures and three double laboratory periods. Prerequisite: Zoology 429. *Mr. Kent*. (Offered alternate years. Not offered in 1961-62).

Analytical techniques applied to endocrinology through assigned projects.

830. SEMINAR IN PARASITOLOGY. Credit 1 hour per quarter. Maximum credit allowable, 6 hours. Prerequisite: Consent of instructor. *Mr. Byrd* and *Mr. McGhee*. (Offered when enrollment justifies).

Weekly meetings for full year devoted to discussions of parasitological subjects.

854. PHYSIOLOGICAL ECOLOGY. Prerequisite: Consent of the instructor. *Mr. Odum*. (Offered alternate years. Offered in 1961-62).

A study of the physiological basis for animal behavior, with emphasis on the major physical factors of the environment as they affect the organism as a whole.

855. ADVANCED ECOLOGY. Prerequisite: Consent of the instructor. *Mr. Odum*. (Offered alternate years. Not offered in 1961-62).

An advanced course in ecological principles with emphasis on population ecology.

856. ECOLOGY SEMINAR. Credit 1 hour per quarter; maximum credit allowable, 6 hours. Prerequisite: Consent of the instructor. *Mr. Odum*, assisted by the Staff.

Biweekly evening meetings covering recent advances in ecology and emphasizing the integration of current ideas and data from plant, animal and microbial research.

870. GENETICS SEMINAR. Credit 1 hour per quarter; maximum credit allowable, 6 hours. Prerequisite: Consent of the instructors. *Mr. Hinton* and *Mr. Howe*.

Weekly meetings reviewing recent research literature in genetics.

900. PROBLEMS IN ZOOLOGY. *The Staff*.

This course allows students to work intensively on problems in an approved field of zoology.

THE SCHOOL OF LAW

JOHN ALTON HOSCH, B.S.C., M.A., LL.B., LL.D., *Dean*

GENERAL INFORMATION

Courses in law were first offered at the University in 1843 and the School of Law of The University of Georgia was established in 1859. The Honorable Joseph Henry Lumpkin, a distinguished lawyer, who later became the first Chief Justice of the Supreme Court of Georgia, was elected the first professor of law.

The School of Law is a member of the Association of American Law Schools, an organization of the leading law schools of the country. The American Bar Association and the Georgia Bar Association have approved the quality of its work. The School has also been approved by the Board of Regents of the State of New York so that its graduates are eligible to take the bar examination in that state as in other states.

STANDARDS OF THE AMERICAN BAR ASSOCIATION

The Council on Legal Education and Admissions to the Bar of the American Bar Association requests that attention be called to the following standards adopted by the Association:

1. The American Bar Association is of the opinion that every candidate for admission to the bar should give evidence of graduation from a law school complying with the following standards:

a) It shall require as a condition to admission at least three years of study in a college, or its equivalent.

b) It shall require its students to pursue a course of three years' duration if they devote substantially all of their working time to their studies, and a longer course, equivalent in the number of working hours, if they devote only a part of their working time to their studies.

c) It shall provide an adequate library available for the use of the students.

d) It shall have among its teachers a sufficient number giving their entire time to the school to ensure actual personal acquaintance and influence with the whole student body.

e) It shall not be operated as a commercial enterprise and the compensation of any officer or member of its teaching staff shall not depend on the number of students or on the fees received.

2. The American Bar Association is of the opinion that graduation from a law school should not confer the right of admission to the bar, and that every candidate should be subject to an examination by public authority to determine his fitness.

3. The Council on Legal Education and Admissions to the Bar is directed to publish from time to time the names of those law schools which comply with the above standards and of those which do not, and to make such publications available so far as possible to intending law students.

The School of Law of The University of Georgia is approved by the Council on Legal Education of the American Bar Association as fully complying with these standards.

PURPOSES AND METHOD OF INSTRUCTION

The courses of study offered in the School of Law are designed to give a thorough knowledge of the Anglo-American system of common law and to familiarize the student with statutory laws with which he must deal. Emphasis is placed on teaching the student how to make a practical application of the legal principles he learns. The School also undertakes to shape the interests and aims of its students so as to make them respected and useful citizens and to instill in them that high sense of personal honor and regard for professional ethics that should characterize members of the legal profession.

In general, the School operates under the case method of instruction as best designed to enable students to master the common law and equity as working systems. The student studies actual cases, deducing from them the principles of law involved, and this approach tends to develop in the student the power of analysis of legal problems. In addition, however, the study of cases is supplemented by statutory and textual materials. This method of instruction accords with that followed by the leading law schools of the country.

Instruction is given in the drafting of legal instruments by requiring the student to prepare, under the supervision of an instructor, contracts, leases, deeds, wills, charters, and other legal documents.

Practical instruction in the preparation and trial of cases is given in a Practice Court under conditions made as nearly as possible like those prevailing in the courts of the State. The work of this court is carried on under the direction of a member of the faculty, judges, and practitioners. Here are taken up matters relating to the preparation of pleadings, examination and cross-examination of witnesses, writing of briefs, presentation of arguments to the court and jury, taking of cases from lower courts to appellate courts, and other related subjects of a practical nature. For the work of this court there is a large and handsomely furnished court room.

PRE-LEGAL CLUB

A pre-legal club, composed of students in the various schools and colleges of the University, and under the supervision of a member of the law faculty, seeks to acquaint students interested in the study of law with the work and environment of the Law School. Suggested undergraduate work that should prove of definite value in preparation for law study is brought to the attention of the students. The club elects its own officers, holds periodic meetings, and participates to some extent in the activities of the School. Through the club, faculty and students in the Law School meet the prospective students of the future, and in some measure assist these in preparation for entry into a professional school.

LAW CLUBS

The student body of the School of Law is organized into clubs. Each club is presided over by a chief justice who is a member of the senior class. Cases are assigned to members of the first and second year classes for argument. The arguments are conducted before some member of the senior class or before some professor or practicing attorney invited by the club to sit as judge. After the decision legal principles involved in the case are discussed. These discussions frequently give to a student insight into a legal problem which he could not get so readily in any other way. With

a regular schedule of cases in which opposing attorneys are members of different clubs, a spirit of friendly and wholesome rivalry has been developed among the clubs.

LECTURES

In order that students may receive first-hand knowledge of what is actually taking place in the courts and of the development in the various fields of the law, a number of distinguished lawyers and judges deliver lectures on phases of the law in which they may be particularly interested. These men come to the School of Law because of interest in legal education and give their services without compensation.

STUDENT MEMBERSHIP IN GEORGIA BAR ASSOCIATION

Any member of the second year or third year class is eligible for junior membership in the Georgia Bar Association. Students eligible for membership are urged to avail themselves of this privilege and to attend the meetings of the Bar Association. Student members of the Association become acquainted with the leaders of the bench and bar and are introduced to problems considered by lawyers in their professional organizations. There is thus developed in the student a sense of professional consciousness.

BUILDINGS AND LIBRARY

The School of Law of the University is housed in three buildings. The Main Law Building is a handsome structure provided by alumni and friends of the University and completed in 1932. It was named in honor of Harold Hirsch, Class of 1901, a devoted alumnus. On the ground floor are the court room and smoking and lounging rooms. The main floor of the building contains three large lecture rooms, administrative offices, and private offices for professors. The Alexander Campbell King Library is located on the top floor of the building. It was named for the late Judge Alexander Campbell King, Solicitor-General of the United States under President Wilson, and later a Judge of the United States Circuit Court of Appeals for the Fifth Circuit. The School of Law is greatly indebted to the widow of Judge King, Mrs. Alice M. King, who contributed generously to the establishment of the library in memory of her husband. In addition to the library offices, the Library has a stack room with a capacity of 75,000 volumes, a typing room for the convenience of students, and a commodious air-conditioned reading room.

The Institute of Law and Government occupies the building on the North adjacent to the Main Law Building. It contains several offices, library, seminar and conference rooms, and other facilities.

In the small structure behind the Institute of Law and Government is the office of the Student Editorial Board of the Georgia Bar Journal. Here also is a memorial room resembling a Georgia law office of a century ago with interesting and valuable furniture and other objects belonging to distinguished jurists and alumni of the School.

The Library of the School of Law now contains more than 40,000 well selected volumes to which approximately 1,500 volumes are added annually. The book collection includes the reports of all cases decided by the appellate courts of the United States as well as a large collection of reported cases from the leading common-law jurisdictions of the British Commonwealth.

The collection of statutory law includes the codes, or general statutes, of each of the states and territories. In addition there is a rapidly increasing file of leading law reviews in the English language and a comprehensive collection of up-to-date treatises on all phases of the law.

The library receives a substantial appropriation every year for the purpose of continuously expanding the book collection which is further augmented by the gifts of friends and alumni of the School of Law.

The facilities of the General University Library are also available to the students of the School of Law.

DORMITORY

The Law and Graduate Students Dormitory, a modern three-story brick building completed in 1958, houses one hundred and fifty students. The bedrooms will accommodate two students and are furnished with beds, desks and chairs, a lavatory and cabinet. On each floor is a study room with table and chairs. There are bathrooms, water fountains, laundry chutes and other facilities on the three floors. A library and lounge on the first floor has a complete set of Georgia Appellate Reports, the Code, and a number of law treatises. Charges are \$75 per quarter, which includes a limited amount of flat-work laundry. Distinct advantages are gained by law students living and working together in the Law and Graduate Students Dormitory.

INSTITUTE OF LAW AND GOVERNMENT

The Georgia Institute of Law and Government was established in 1953 and operates as an integral part of the School of Law. A reorganization in 1957 expanded the program of the Institute and made it the University agency primarily responsible for research, training, and service activities in the fields of law, government, and public administration. In this reorganization the Institute assumed the functions formerly performed by the University's Bureau of Public Administration.

The Institute enables the lawyer, the legal scholar, the public official, and those who are skilled in related fields to study specifically some of the things the law seeks to accomplish and, upon the basis of review of available materials and the application of legal thought and techniques, to formulate the groundwork for legislation reasonably calculated to accomplish desired ends. Cooperation with the courts, the Georgia Bar Association, the Judicial Council, and other governmental agencies and groups in the State interested in improving the administration of justice and public administration in general, makes the work of the Institute, through its study of law in action, an effective complement to the theoretical studies carried on in the School.

Through its research program, the Institute produces a constant flow of publications on law, government, and public administration. This program involves basic as well as applied research in these fields. In cooperation with the Georgia Center for Continuing Education and other schools and colleges, the Institute conducts an extensive program of conferences, institutes, and short courses for lawyers, governmental officials, and public employees. The service program of the Institute embraces a wide range of technical and consultative assistance to members of the Bar, public officials, governmental agencies, and civic groups of the State.

ADMISSION OF STUDENTS

ENTRANCE REQUIREMENTS

An applicant for admission to the School of Law as a candidate for the degree of Bachelor of Laws must be of good character and present satisfactory evidence of that fact. He must also present satisfactory evidence that he is a graduate of a college of approved standing or that he has satisfactorily completed at least three years of regular residence work at such a college constituting not less than three-fourths of the work acceptable for a bachelor's degree granted on the basis of a four-year period of study.

There is no requirement that applicants for admission have college credit in any specified subjects. The prospective law student should seek a broad general education. It is important to be well trained in the use of English and to be able to write effectively. In addition, as many as possible of the following subjects should be studied: History; logic; philosophy; mathematics (at least the elementary courses); enough science to appreciate its importance; some economics; government, and psychology. Some knowledge of sociology and the ability to speak are useful to a lawyer.

In accordance with action of the faculty of the School of Law, with the approval of the President of the University, all applicants will complete a series of tests with scores evidencing ability profitably to pursue studies in law. These tests will be taken after all other requirements for admission have been met, and prior to consideration of the applicant for acceptance.

The School of Law admits both men and women students as candidates for degrees.

ADVANCED STANDING

The Dean may, in his discretion, give full credit for work done in other law schools which are members of the Association of American Law Schools. Under no circumstances, however, will advanced credit be given for more than two years of work. The last year of work on the basis of which a degree is granted must be taken in this School of Law. Students seeking to enter the School of Law with advanced standing must comply with all the entrance requirements set forth above.

DIRECTIONS TO APPLICANTS FOR ADMISSION

Every applicant for admission to the School of Law must present to the University Director of Admissions a complete transcript of his college work, together with two small photographs of the applicant. The matter of registration will be simplified if this transcript is sent to the University Director of Admissions well in advance of the opening of the session which the applicant expects to attend. The transcript may be procured from the registrar of the college or university at which the student's pre-legal work was done.

Information about the place and times of the administration of admission tests will be furnished the applicant when all other requirements for admission have been met. In order to schedule the tests it is necessary that the application be completed three weeks before the date of registration for the session the applicant expects to attend. Tests are scheduled several times during the Winter, Spring and Summer Quarters each year, and prospective students are urged to complete applications as early as possible in order

that they may take the tests at one of the earlier dates. For admission in September of 1961, tests will be administered on April 8, May 13, and July 15 on the campus of the University at Athens.

COMBINED COURSES

A student who has completed three years of required work in the College of Arts and Sciences, the College of Business Administration, or the School of Journalism may substitute the first year of satisfactory work in the School of Law for his senior work and thus at the end of his fourth year of study receive the degree of Bachelor of Arts, Bachelor of Business Administration or Bachelor of Arts in Journalism. However, this first degree will be granted only upon satisfactory completion of 185 quarter hours (186 quarter hours for the degree of Bachelor of Business Administration), exclusive of Physical Education and basic Military or Air Science. On the successful completion of the two remaining years of work in the School of Law he will be entitled to receive the degree of Bachelor of Laws. A student may in this manner receive in six years both the academic and law degrees.

DEGREES

BACHELOR OF LAWS. In order to receive this degree a student must have completed not less than 120 quarter hours of work with a weighted average of at least a minimum C.

The 120 quarter hours of work on the basis of which a degree is granted must include all the work of the first year. The following courses in the work of the second and third years are required: Constitutional Law, Equity, Evidence, Georgia Practice and Procedure, Legal Ethics, Practice Court, and Property II.

In order to receive a degree, a student must satisfy not only the requirements specified above but must also have been in attendance at the School of Law for nine full quarters. A student may not register for less than twelve quarter hours or for more than sixteen quarter hours without permission of the Dean. To get credit for a residence quarter, a student must be registered for a minimum of ten quarter hours and pass a minimum of nine such quarter hours.

The Dean may give credit for work done in other law schools approved by the Association of American Law Schools. However, in all cases the work of the three quarters immediately preceding the granting of a degree must be completed in this School.

A student who completes a full summer session is credited with one quarter of residence toward the degree requirements.

The faculty of the School of Law will, in its discretion, recognize unusual scholastic attainments of genuine distinction by awarding the degree of Bachelor of Laws *summa cum laude*, *magna cum laude*, or *cum laude*.

MASTER OF LAWS. The School of Law has a program leading to the degree of Master of Laws. A prerequisite is a Bachelor of Laws degree from an approved law school, the work done being of such quality as to indicate that advanced work may be pursued with profit. At least one academic year of full-time study is required. The thesis and not less than one-half of the student's course work must be in the general field of law. The program for the degree provides opportunity for specialization in a chosen field or a broadening of his general knowledge of the law. It is designed to encourage legal scholarship of high quality and is particularly adapted to students in-

terested in careers in teaching law, further study in specialized fields, especially practice in public law, or opportunities for legal work in various branches of government service. Students seeking this degree normally will be required to maintain a scholastic standing considerably higher than was required for graduation with the Bachelor of Laws degree. Programs suited to individual desires and needs may be arranged. Further information can be obtained from the Dean of the School of Law.

GENERAL INFORMATION. No student may receive a degree without the favorable recommendation of the faculty, and this may be withheld for satisfactory cause although the required work has been completed.

A candidate for a degree, unless excused in writing by the secretary of the faculty of the University, must attend the graduation exercises at which he expects a degree to be conferred upon him.

THE HONOR CODE

In 1930 the student body of the School of Law unanimously adopted the Honor Code. Through the ensuing years it has been subscribed to and administered by the students. Upon entering the School of Law every student is provided with a copy of the Honor Code Constitution, which sets forth the requirements and the machinery for enforcing the same. The requirements are that a student shall act honorably in all relations of student life. Lying, cheating, failure to report any instance of infraction of the Honor Code, or breaking one's word of honor, are condemned. After opportunity to examine the Honor Code Constitution and to acquaint himself with the environment of the School, each student is given the opportunity to sign a pledge by which he promises to observe the provisions of the Honor Code. Upon subscribing to the pledge the student is thereafter bound by the provisions of the Honor Code during the time he remains in the School of Law.

LAW STUDENT ADVISORY COUNCIL

The Law Student Advisory Council is composed of all class officers and the members of the Honor Court. Its function is to bring about a closer relationship between students and the faculty and administration of the Law School. Through such a student group the reasoned views of the student body become articulate, oftentimes with beneficial effect on the work of the School. A thoroughly democratic group, the Advisory Council represents students in every class as well as those entrusted with the administration of the Honor Code, and all are elected by their fellow students. The student body works in close cooperation with the Advisory Council. The Advisory Council is affiliated with the Law Student Association, an organization sponsored by the American Bar Association. Through this connection much literature on student affairs is made available for helpful interchange of student thought.

THE UNIVERSITY OF GEORGIA LAW SCHOOL ASSOCIATION

The University of Georgia Law School Association consists of all lawyers who are alumni of The University of Georgia School of Law or of The University of Georgia. Members of the Association are represented by elected officers. The object of the Association is to promote the interest of The University of Georgia School of Law through support of the cause of legal education at the University, to strive for the improvement of the law and the administration of justice in Georgia, and to sustain a permanent affili-

ation and fellowship among all lawyers who attended The University of Georgia. It has an active and loyal membership and is a source of strength to the Law School.

ADMINISTRATIVE REGULATIONS

The general regulations and requirements relating to the University as a whole apply to students in the School of Law except in so far as they may have been modified or changed by the Faculty of the School of Law with the approval of the President of the University. Students in the School of Law will be advised of such changes as may be made from time to time.

REGISTRATION

Students may enter the School of Law only at the beginning of the Fall Quarter.

Service fees for late registration will be assessed by the Registrar in accordance with University regulations.

A student is entitled to be registered as a second-year student when he has satisfactorily completed not less than thirty quarter hours of his first year's work.

A student is entitled to be registered as a third-year student when he has satisfactorily completed not less than seventy-five quarter hours of work which must include all first-year required subjects.

No student may, without special permission of the dean, register for less than twelve hours of work per week in any quarter or take for credit more than sixteen hours of work.

The courses of study in the School of Law are designed to occupy the full time of students, and no student in the School of Law may, without special permission of the Dean, take courses in other schools or departments of the University.

AUDITORS

A student who wishes to attend lectures in a course, but who does not wish to take the examination, may, with permission of the Dean, register as an auditor in that course. A student's record card will indicate the lectures which he attended as an auditor, but no credit toward a degree will be given for work so taken. The School of Law reserves the right to withdraw this privilege for any course in which the instructor deems it inadvisable to admit auditors.

ATTENDANCE

The right to take the examinations, as well as the privilege of continuing one's membership in the School, is conditioned upon regular attendance at classes and the other exercises of the School. A student who during a quarter incurs in any course a number of absences in excess of double the number of times which that course meets per week will be excluded automatically from the examination in that course, and only in exceptional cases will the student be permitted by the faculty of the School of Law to take the examination.

EXAMINATION AND GRADING SYSTEM

Written examinations are given upon the completion of the various courses offered in the School.

The work of each student is graded as follows: A; B+; B; C+; C; D+; D.

Other marks are in use to indicate varying grades of work. They are:

P—(Pass).

F—(Failure). This grade may be converted into a higher grade by repeating the work in the course.

I—(Incomplete). This grade indicates that a student, although doing satisfactory work was, for some reason beyond his control, unable to complete the course.

W—Withdrawn from the course by permission with no grade assigned.

WF—Indicates a course from which the student withdrew while doing unsatisfactory work. This grade carries the F value.

EXCLUSION OF STUDENTS

A student who, at the end of his first three quarters, or at the end of any quarter thereafter, does not have a weighted average grade of the minimum C on all work taken by him since entering the School of Law, shall not be entitled to continue in attendance except by special permission of the Dean and upon such showing and such conditions as the Dean may require. This permission will be granted only in unusual cases.

FEEES

Students in the School of Law who are residents of the State of Georgia are required to pay each year (three quarters) a matriculation fee of \$286.50.

Students whose homes are not within the State of Georgia are required to pay each year (three quarters) a matriculation fee of \$631.50.

In the cases of both resident and non-resident students matriculation fees may be paid in quarterly installments.

A student receiving a bachelor's degree from the School is charged a diploma fee of \$8, which includes rental of cap and gown, payable at the time the student makes application for graduation. The student should apply for graduation three quarters prior to the date he expects to complete requirements for the degree.

All rates, including matriculation fees, room, and board, are subject to revision at the beginning of any quarter.

EXPENSES

The cost of new law books will average, through the three years, about \$75 per year. Second-hand books may be had at less cost.

Charges for housing in the Law and Graduate Students Dormitory, including certain flat work laundry, are approximately \$80 per quarter.

If a student prefers he may obtain board and lodging in a private home or boarding house. The prices for both rooms and meals vary considerably in the city.

Incidental expenses are entirely within the control of the student and cannot be regulated by the University.

LOAN FUNDS

The University has the Brown Fund, the Lumpkin Fund, and other funds from which loans may be made to students. Law students may apply for these loans on the same basis as other students. Those who desire information regarding loans from these funds should write to the Director of Placement and Student Aid.

The Georgia Bar Association has a fund from which loans can be made to a limited number of deserving students in need of financial assistance. Information regarding loans from this source can be obtained from the Dean of the School of Law.

Mrs. Nettie Elsas Phillips has created a fund of \$5,000 in memory of her husband, Benjamin Z. Phillips, a loyal alumnus of the School. The annual income of this fund is available for loans to students in the School of Law. Applications for loans from this source should be made to the Faculty of the School of Law.

OPPORTUNITIES FOR SELF-HELP

A number of students find it possible to earn part of the money necessary to pay their expenses. Those who desire information concerning opportunities for self-help should write to the Director of Placement and Student Aid.

PLACEMENT

The Law School endeavors to assist students in finding legal positions upon graduation. Complete files are maintained on all students in the School and information is made available to interested parties. Through cooperation with the organized alumni, placement committees of the Georgia Bar Association, Circuit Bar Associations, and other groups, as well as through the efforts of individual members of the law faculty, most graduates have found satisfactory connections in the practice or in other fields where their legal training is of value.

RELIGIOUS ACTIVITIES

The University recognizes that religious influences are essential to the well-rounded development of the individual. There is located on the University campus a University of Georgia Religious Association which does much to serve the spiritual needs of the students and to provide for them wholesome social environment. The Association cooperates with student pastors and workers maintained by the Athens churches and throughout the year sponsors special programs for and by the students.

FRATERNITIES

In the School of Law are chapters of the Phi Alpha Delta, and Phi Delta Phi, legal fraternities for men, and Phi Delta Delta, legal fraternity for women. Law students are also eligible for membership in the local chapters of Phi Beta Kappa and Phi Kappa Phi. There are located at the University chapters of a number of the leading social fraternities of the country. Law students are eligible for membership in these fraternities.

LITERARY SOCIETIES

Students in the School of Law are eligible for membership in the two literary societies of the University, Demosthenian and Phi Kappa. The former society has been functioning continuously since 1801 and the latter since 1820. Regular weekly meetings are held at which students have an opportunity to take part in public speaking and debating. The training derived from work done in these societies is of particular value to those preparing themselves for careers at the bar.

PRIZES

JESSIE AND DAN MACDOUGALD MEMORIAL FUND. The Dan MacDougald Memorial Fund was created on August 24, 1953, by gifts from friends, associates, and family of Dan MacDougald, first honor graduate of the Law Class of 1910, to benefit the School of Law and honor Mr. MacDougald's memory. Upon the death of Mrs. Dan MacDougald in 1957, it was decided to honor her also and the name of the Fund was changed accordingly. The Fund is administered by The University of Georgia Foundation and provides for an annual cash award of the net income to the first honor graduate of the School of Law.

THE HARRISON PRIZE. The Harrison Company, law book publishers of Atlanta, offers as a prize to that member of the graduating class who makes the highest average during his third year a copy of *Georgia Court Rules Annotated* including the 1960 Cumulative Pocket Part Supplement.

THE LAWYERS' CO-OPERATIVE PUBLISHING COMPANY PRIZE. The Lawyers' Co-operative Publishing Company offers annually a prize to the member of the classes in Legal Method who makes the highest grade a copy of Ballentine's *College Law Dictionary*.

NATHAN BURKAN MEMORIAL COMPETITION. The American Society of Composers, Authors, and Publishers annually offers cash awards of \$150 first prize and \$50 second prize to those students of the graduating class submitting the two best papers on "Copyright Law."

PHI DELTA PHI PRIZE. Wilson Inn, the local Chapter of Phi Delta Phi, presents annually to that member of the first year class who makes the highest average during his first year a prize consisting of law books selected by the Inn.

THE REDFEARN PRIZE. Mr. D. H. Redfearn, of the Miami bar, offers an award of \$50 to that student writing the best article on "Suggested Changes in the Remedial Laws of Georgia."

THE HENRY SHINN MEMORIAL AWARD. The Alexander H. Stephens Chapter of Phi Alpha Delta National Legal Fraternity annually presents a certificate and a \$25 Government Bond to the student writer of the best legal article published during the year. The award is given in honor of Dr. Henry A. Shinn, an esteemed member of the law faculty for many years.

GEORGIA BAR JOURNAL

Each year the faculty selects a Student Editorial Board from the members of the second and third year classes. Members of the Board prepare notes and comments on recent cases for publication in the Georgia Bar Journal, the official publication of the Georgia Bar Association. The student editors are selected on the basis of scholarship. Academic credit is given for work satisfactory to the Faculty Advisers.

COURSES OF INSTRUCTION

The University reserves the right to withdraw any course or seminar for which the registration is not sufficient and to offer any courses and seminars not here listed should sufficient demand arise and adequate teaching facilities and personnel be available.

FIRST YEAR

BUSINESS ORGANIZATIONS I

Three hours

Nature of agency; relation to business associations; creation and termination; scope of employment; express and apparent authority; rights and liabilities of principal and agent and third parties; ratification.

Mr. Feild

Seavey and Hall's *Cases on Agency*.

CIVIL PROCEDURE

Five hours

General theory of actions as remedies; steps in an action; declarations; demurrers, pleas and replications; necessary allegations; parties; venue; process; jurisdiction; trials and verdicts; motions after verdicts.

Mr. Green

Magill and Chadbourn's *Cases on Civil Procedure* (3rd edition).

CONTRACTS I AND CONTRACTS II

Eight hours

An introduction to the law of legally enforceable promises including offers and their acceptance; duration and termination of offers; consideration; requisites of contracts under seal; parties affected by contracts; parole evidence rule; statute of frauds; performance of contracts; effect of illegality; discharge of contracts.

Mr. Hosch

Williston's *Cases on Contracts* (6th edition).

CRIMINAL LAW AND PROCEDURE

Five hours

The historical development of criminal law as well as the analysis of the necessary elements of crimes, and the consideration of the principal classes of crimes; criminal procedure, including: jurisdiction and venue, arrest, preliminary examination and bail, indictment and information, arraignment, motions and pleas, trial and review.

Mr. Shannonhouse

Harno's *Cases and Materials on Criminal Law and Procedure* (4th edition).

DOMESTIC RELATIONS

Three hours

Certain important aspects of family law, including contracts to marry, marriage, annulment, separation, and divorce; the relation of husband and wife, and parent and child, with reference to property, support, alimony, and custody.

Mr. Jones

McCurdy's *Cases on Domestic Relations* (4th edition).

LEGAL METHOD

Four hours

Basic methods, sources, and literature of Anglo-American case law and legislation. Sources and forms of American laws; analysis and synthesis of judicial precedents; authoritative hierarchy of precedents; interpretation of statutes and their uses as analogies in case law; problems in the theory of legal reasoning; and the law as a system.

Mr. Henderson and Mr. Rees

Dowling, Patterson and Powell's *Cases and Materials on Legal Method* (2nd edition).

PROPERTY I

Four hours

Actual and constructive possession of real and personal property; rights based on possession; liabilities based on possession; disseisin and adverse possession of land; disseisin and adverse possession of chattels; various methods of acquiring title to personal property; liens and pledges; fixtures; some rights incident to the ownership of land.

Mr. Chaffin

Aigler, Bigelow and Powell's *Cases on Property*, Voume I (2nd edition).

TORTS I AND TORTS II

Eight hours

Principles underlying the laws of civil liability for conduct causing damage to others. Assault, battery, and false imprisonment; negligence as a basis for liability; contributory negligence as a defense; injuries by animals; dangerous use of land; violation of statutory duties as a basis of civil liability; deceit; malicious prosecution; libel and slander; invasion of the right of privacy; interference with advantageous relations; proximate causation; justification and excuse.

Mr. Henderson and Mr. Rees

Seavey, Keeton and Keeton's *Cases on Torts*.

SECOND YEAR

ADMINISTRATIVE LAW*

Four hours

Administrative power and action and its control by courts; discretion of administrative officials and their power to take summary action; hearings before administrative boards; legal and equitable relief against administrative action; finality of orders of administrative boards.

Mr. Feild

Davis' Cases on Administrative Law.

BUSINESS ORGANIZATIONS II*

Four hours

Distinctions between business corporations and non-incorporated business associations. Formation of business corporations; de facto corporations; stock subscriptions; promoters. Relation between business corporations and the stockholders. Partnership and partners; true partnership and partnership by estoppel; partnership property; powers of partners; relation of partners among themselves; dissolution and winding up. Powers and liabilities of business corporations.

Mr. Cohn

Gilmore's Cases on Partnership (3rd edition).

Lattin and Jennings Cases and Materials on Corporations (3rd edition.)

*Registration open to third-year students.

BUSINESS ORGANIZATIONS III*

Four hours

Management of business corporations. Conflict of interests in corporate transactions. Rights of stockholders: shares; dividends; pre-emptive right; preferred stock; corporate records; voting rights; minority rights; representative suits. Transfer of stock. Questions of finance. Dissolution. Creditors' rights. Prerequisite is Business Organizations II unless waived by the instructor.

Mr. Cohn

Lattin and Jennings *Cases and Materials on Corporations* (3rd edition.)

COMPARATIVE LAW SEMINAR*

Three hours

Historical, analytical and critical comparison of the solution of legal problems by common law and civil law states. Practical problems, especially in the fields of contracts, torts, domestic relations, and quasi contracts.

Mr. Cohn

Von Mehren's *The Civil Law System*.

CONSTITUTIONAL LAW*

Five hours

Written constitutions and their amendment; power to declare laws unconstitutional; separation of powers; delegations of legislative power; limitations on legislative powers of State and Federal Governments; due process of law; police power; civil rights and their protection; protection afforded to contracts and property.

Mr. Feild

Dowling's *Cases on Constitutional Law* (6th edition).

EQUITY I AND EQUITY II

Seven hours

The nature of equity jurisdiction, the history of equity jurisprudence; powers of courts of equity; specific performance of contracts; subject-matter of the contract; affirmative and negative contracts; contracts for arbitration and appraisal; damages in addition to or in lieu of specific performance; equitable servitudes; consequences of the right to specific performance; partial performance with compensation; interpleader; discovery and accounting; bills quia timet; bills of peace; joinder of parties and class suits.

Mr. Shannonhouse

Casebook to be announced.

EVIDENCE

Five hours

Judicial notice; examination of witnesses; competency and privileges of witnesses; relevancy; direct and circumstantial evidence; illegal obtainment; opinion evidence; hearsay; authentication and production of writings; interpretative evidence; functions of judge and jury; burden of proof; presumptions.

Mr. Green

Green's *The Georgia Law of Evidence*.

*Registration open to third-year students.

GEORGIA PRACTICE AND PROCEDURE

Four hours

Jurisdiction of the trial and appellate courts; pleadings and procedure in all courts; techniques of the lawyer in the preparation and trial of cases.

Mr. Barrow

Leverett, Hall, Christopher, Davis and Shulman *Georgia Procedure and Practice*.

INSURANCE

Four hours

General principles of insurance law, emphasizing life and fire, but considering also accident, marine, and guaranty insurance. Making and construction of the contract; insurable interest; concealment; misrepresentation; warranties; waiver; estoppel; power of agents; measure of recovery; rights of assignees and beneficiaries.

Mr. Feild

Vance's *Cases on Insurance* (4th edition).

INTERNATIONAL LAW SEMINAR*

Four hours

Selected topics on international law; its nature, development and relation to municipal law; sovereignty, birth, recognition and death of nations; continuity of state personality; succession, domain, nationality; international treaties and cooperation and adjustment of differences under special consideration of the Charter of the United Nations.

Mr. Cohn

Casebook to be announced and Selected Materials.

LEGAL ACCOUNTING

Five hours

Principles of accounting, with emphasis on the corporation, including problems of capital, profits, valuation, insolvency, and the analysis of financial statements. Intended especially to provide an accounting background for courses in business units, taxation, trusts and estates for students who have had no previous training in accounting.

Mr. Heckman

Casebook to be announced.

MUNICIPAL CORPORATIONS*

Four hours

The law of Municipal Corporations, including the method of creation; the general municipal powers; municipal action to promote public welfare; including zoning and city planning; appropriation of municipal funds; municipal contracts, municipal indebtedness; municipal torts; acquisitions and disposition of municipal property; municipal taxes and special assessments.

Mr. Barrow

Stason's *Cases on Municipal Corporations* (2nd edition).

NEGOTIABLE INSTRUMENTS*

Four hours

The law of bills, notes and checks according to the Uniform Negotiable Instruments Law; its local application; possible changes under proposed Uniform Commercial Code.

Mr. Cohn

Britton's *Cases on Bills and Notes* (4th edition).

*Registration open to third-year students.

PROPERTY II

Five hours

Land titles, including the various estates in land and the mode of conveyancing at common law and under modern statutes; the execution of deeds and the subject matter thereof; creation of easements by implication; covenants for title; estoppel by deed; general principles of the recordation statutes.

Mr. Chaffin

Aigler, Bigelow and Powell's *Cases on Property*, Volume I (2nd edition).

SALES*

Four hours

Deals with executory and executed contracts for the sale of personal property and with the rights and remedies of buyers and sellers under the common law and Uniform Sales Act. Possible changes under proposed Uniform Code.

Mr. Cohn

Vold's *Cases on Sales* (2nd edition).

THIRD YEAR

APPELLATE BRIEF WRITING

Four hours

Actual practice in writing briefs and arguing cases before Courts of Appeal. Each student prepares a written appeal brief and argues before an appeal court. Members of the faculty preside at the hearings.

Mr. Henderson

Selected Materials.

BANKRUPTCY

Four hours

Historical survey; jurisdiction of the United States and the several states; summary and plenary jurisdiction; administrative officials; petitions and petitioners; bankrupt's discharge; acts of bankruptcy; assets of the estate; claims and distribution; composition procedures.

Mr. Cohn

Hanna and MacLachlan's *Cases on Creditors' Rights* (Consolidated 5th edition).

CONFLICT OF LAWS

Four hours

Jurisdiction over persons and things; domicile as a basis of personal jurisdiction; law governing the creation of personal and property rights; the recognition and enforcement by one state of rights created by the laws of another state, including questions arising out of capacity, marriage, legitimacy, and inheritance; the nature and effect of judgments and decrees, and their enforcement outside the jurisdiction where rendered.

Mr. Hosch

Cheatham, Goodrich, Griswold and Reese, *Cases on Conflict of Laws* (4th edition).

*Registration open to third-year students.

DAMAGES

Four hours

Types of damages including nominal and exemplary, compensatory, liquidated, direct and consequential; aggravation and mitigation, expenses of litigation; tort, contract, and eminent domain; entirety of recovery.

Mr. Jones

McCormick and Fritz, *Cases on Damages* (2nd edition).

ESTATE PLANNING SEMINAR

Four hours

Primarily a planning and drafting course to train the student in the practical application of the knowledge gained in the Wills, Trusts, Future Interests, and Taxation courses. Problem cases will be assigned and each student will be required to draft the necessary instruments which will best carry out the desired estate plan.

Mr. Chaffin

Casner's *Estate Planning* (2nd edition).

FEDERAL JURISDICTION

Four hours

Nature, source and extent of the Federal judicial power. Original, removal, and appellate jurisdiction and procedure in the Federal Courts. State laws as rules of decision. Practice under the Rules of Civil Procedure.

Mr. Green

McCormick and Chadbourn's *Cases on Federal Courts* (3rd edition).

GOVERNMENT REGULATION OF BUSINESS

Four hours

Contracts and combinations in restraint of trade; the Sherman anti-trust act; trade marks and trade names; appropriation of competitor's trade values and the misrepresentation of his product; resale price fixing, and legislation against price discrimination; the public utility concept; valuation and rate-control and regulation of public utilities by State and Federal Administrative commissions.

Mr. Henderson

Handler's *Cases on Trade Regulations* (3rd edition) and Selected Materials.

JURISPRUDENCE

Four hours

Principal theories of law; law and morals; the various social and economic interests, and their competition with one another. How interests may come to be recognized as legal rights and enforced in the courts.

Mr. Rees

Cohen and Cohen's *Readings in Jurisprudence and Legal Philosophy*.

LABOR LAW

Four hours

History of the labor movement; interference with advantageous relations; inducing breach of contract; termination of relationship and legislative regulation of anti-union contracts. Conduct of a striker, and the right to strike. Federal intervention in labor controversies, including operation of National Labor Relations Board.

Mr. Barrow

Handler's *Cases and Materials on Labor Law*.

LANDLORD AND TENANT

Four hours

The relation of landlord and tenant, including when and under what circumstances the relationship exists; express and implied covenants by lessor and lessee; transfers by lessor and lessee; a study of the various security devices and also of rent; liability for taxes, assessments and repairs; a study of the various methods by which the relationship can be terminated; a brief study of option to purchase agreements and renewals and extensions; the law of the farm.

Mr. Rees

Jacobs Cases and Materials on Landlord and Tenant (2nd edition).

LEGAL ETHICS

One hour

A comprehensive study of the organization and ethics of the legal profession based upon a consideration of the problems in the application and interpretation of the canons of legal and judicial ethics.

Mr. Hosch and Mr. Jones

Pirsig's Cases and Materials on The Standards of the Legal Profession.

LEGAL PROBLEMS SEMINAR

Four hours

Designed to introduce third year students to theories of law as practised by successful attorneys, the seminar partially equips them for intelligent performance of their duties when entering the profession. A number of problems are submitted by practising lawyers after consultation with the professor. Students are given a problem, prepare memoranda of vital legal and factual aspects involved, and discuss these with the practitioner and professor in class. Negotiation and reduction to final draftsmanship of the selected writings are discussed.

Mr. Barrow

Selected Materials.

LEGISLATION SEMINAR

Four hours

A course in the techniques of drafting and interpreting legislation and the mechanics of legislative procedure.

Mr. Green

Cohen's Materials on Legislation.

MILITARY LAW*

Three hours

Historical and constitutional basis; Judge Advocate Generals' Corps; military justice; habeas corpus; war crimes; laws of war and related international law problems; Federal Tort Claims Act.

Mr. Jones

Manual for Courts-Martial 1951 and Selected Materials.

*Registration open to second-year students.

OFFICE PRACTICE

Four hours

A study of the interpretation and draftsmanship of statutes, administrative regulations, contracts, and corporate charters and bylaws; leases, sales agreements, security transactions, and corporate papers; techniques of student draftsmanship and critique.

Mr. Henderson

Cook's Cases and Materials on Legal Drafting. (Revised edition).

PRACTICE COURT

Two hours

Acquaints students with actual practice in trial courts. Students are required to prepare pleadings, issue process, file and docket suits, argue cases before court and jury, prepare verdicts, judgments and motions for new trial.

Mr. Green

Selected Materials.

PROPERTY III

Four hours

Among the topics presented are: reversions, possibilities of reverter and rights of entry for condition broken, remainders and executory interests, vesting of future interests, limitations to classes and the rule against perpetuities. Prerequisites are Property I and Property II.

Mr. Chaffin

Leach's Cases and Materials on Future Interests (2nd edition).

REAL ESTATE TRANSACTIONS

Four hours

A comprehensive course pertaining to the practical aspects of examination of titles, abstracts of titles, title insurance, real estate sales and real estate loans.

Mr. Birchmore

Selected Materials.

REMEDIES

Three hours

Legal and equitable relief available to the injured party, including compensatory, restitutionary, and exemplary damages, injunctions, and specific relief as applied in various situations. Emphasis will be given to the remedies available for injuries to the person, interests in realty or personalty, and for breach of an enforceable agreement.

Mr. Chaffin

Wright's Cases on Remedies.

RESTITUTION

Three hours

Defects in the formation and in the performance of contracts with special emphasis on available remedies, legal and equitable, contractual and quasi contractual. The right to the restitution of benefits conferred under mistake both of fact and of law.

Mr. Feild

Laube's Cases on Quasi Contracts.

SECURITY TRANSACTIONS

Four hours

Problems in suretyship and mortgages. Creation of suretyship relation; surety's rights against the principal debtor; defenses of the surety; the subject of security interests in property; the creation of security devices, their assignment and enforcement; priorities; dealers' financing; pledges; conditional sales; trust receipts.

Mr. Green

Sturges' *Cases on Credit Transactions* (4th edition).

TAXATION I—FEDERAL INCOME TAX

Five hours

Correlation of the accounting and legal approach to Federal income tax problems from a study of statutes, regulations, and decisions. The taxation of incomes of individuals, partnerships and fiduciaries, with special attention to the problem of tax deductions and credits.

Mr. Heckman

Federal Tax Law Service.

TAXATION II—FEDERAL TAXES OTHER THAN INCOME TAX

Five hours

Continuation of Taxation I. The legal and accounting problems arising from Federal income tax of corporations, gift taxes and estate taxes.

Mr. Heckman

Federal Tax Law Service.

TRUSTS

Four hours

Creation and elements of a trust; charitable trusts; resulting and constructive trusts; administration and termination of trusts; the transfer of the beneficial interest and liabilities to third parties.

Mr. Chaffin

Bogert and Hall's *Cases on Trusts* (2nd edition).

WILLS AND ADMINISTRATION OF ESTATES

Four hours

Testamentary capacity; formalities of wills; effect of contracts; fraud, undue influence, and mistake; revocation and republication; construction and interpretation. Probate jurisdiction; executors and administrators; descent and distribution; claims of creditors; summary proceedings.

Mr. Feild

Mechem and Atkinson, *Cases on Wills and Administration of Estates*. (4th edition).

WORKMEN'S COMPENSATION AND MEDICO-LEGAL PROBLEMS

Four hours

A study of the problems involved in the application and interpretation of modern Workmen's Compensation Acts, with special emphasis on the Georgia statute. A series of lectures covering Medico-legal problems are included.

Mr. Feild

Riesenfeld and Maxwell's *Modern Social Legislation*.

THE SCHOOL OF PHARMACY

KENNETH LEE WATERS, A.B., M.S., Ph.D., *Dean*

GENERAL INFORMATION

The School of Pharmacy was created and became an integral department of the University in 1903. During the first twenty-three years the pharmacy course extended over a period of two years. Students completing the course received the certificate, Graduate in Pharmacy. Beginning in September, 1926, the four-year plan of study leading to the degree, Bachelor of Science in Pharmacy, was inaugurated. Effective April 1, 1960, the program was extended to five years, two years of pre-pharmacy being required for admission to the School followed by three professional years.

The educational objective of the School of Pharmacy is to train pharmacists; to give men and women such schooling in pharmacy and its allied sciences as will enable them to meet the present and future demands of their chosen profession in an able and intelligent manner. It is felt that this can best be done by co-ordinating the instruction in the cultural and scientific courses with the instruction of a distinctly technical nature. Pharmacy today offers the student a career as a professional man, as a businessman, as a scientist, and presents a challenge to aid in the war against disease.

At the present time the School of Pharmacy is located in a building formerly known as New College with additional class rooms, manufacturing laboratories and research facilities assigned in Terrell Hall. New, modern facilities for the School will be located on the South Campus as a component of the University Science Center.

DEGREES OFFERED BY THE SCHOOL OF PHARMACY

B. S. PHARMACY

Member schools of the American Association of Colleges of Pharmacy require students to complete a minimum of five years for their degree. The program of the School of Pharmacy consists of two years of pre-pharmacy work followed by three professional years. Member schools of the American Association of Colleges of Pharmacy require a student to spend a minimum of nine quarters in residence. Because of the sequence of courses, this generally requires three calendar years regardless of the amount of advanced credit offered.

MASTER OF SCIENCE

The University of Georgia Graduate School offers the degree of Master of Science with a major in Pharmacy, the Bachelor of Science degree in Pharmacy being prerequisite.

A student will be admitted to candidacy for this degree only after he has shown a reading knowledge of either French or German and after he has passed preliminary written or oral examinations given by the School of Pharmacy. These examinations cover in a general way the divisions of pharmacy, pharmaceutical analysis, pharmacology, and organic medicinal chemistry. Candidates will choose one of their minors outside the School of Pharmacy. Application for admission to candidacy must be filed with the Dean of the Graduate School before the first day of classes of the final quarter of full residence.

The thesis must be written, approved by the major professor and placed in the hands of the Dean of the Graduate School at least three weeks before the date of graduation.

DOCTOR OF PHILOSOPHY

Although the Ph.D. degree is not offered in the School of Pharmacy, close co-operation with the divisions of Physical and Natural Sciences makes it possible for a student to obtain a doctorate in such fields as plant science, bacteriology, biochemistry and organic chemistry, with minors in Pharmacy. For these students, dissertations are chosen which have a definite correlation to the various fields of Pharmacy.

ADMISSION TO THE SCHOOL OF PHARMACY

To be admitted to the School of Pharmacy, a student must submit 90 quarter hours of acceptable college credits as outlined in the pre-pharmacy program. Applications should be forwarded to the Director of Admissions in the spring of the year. Students on the University campus should schedule their work carefully through the pre-pharmacy adviser and should make their applications directly to the Dean of the School of Pharmacy. Selection of students for admission will be based on previous college record of the applicant and his general aptitude for pharmacy. Applicants should have a C plus average before applying for admission. Interview and aptitude tests are required on all entering students. It is desired that arrangements be made for interview and testing at the time the application is submitted.

PRACTICAL EXPERIENCE

In order to practice pharmacy in the State of Georgia, one year of full time internship must be served under the supervision of a registered pharmacist. Credit may be received only after a student has completed a portion of his pre-pharmacy work. Students are encouraged to serve internship during the summer. *No credit* for internship will be given concurrently with school work.

All intern pharmacists must notify the Joint Secretary, State Examining Boards, 224 State Capital, Atlanta, Ga. The pharmacist supervising the intern must also notify the Joint Secretary that the intern is under his supervision. Termination of any portion of the internship must be reported by the pharmacist and the intern.

All practical experience must be recorded in a notebook in diary form and must be certified by a pharmacist or pharmacists supervising the experience. Upon the completion of the internship, the notebook must be notarized and submitted to the State Board of Pharmacy at the time of the examination.

THE COOPERATIVE PLAN OF STUDY

Under this plan of study the student will make arrangements with a pharmacist in any town in the state to work alternate quarters while attending the University. It will be advantageous to the pharmacist, the student and to the University if students can be placed in pairs. The cooperative plan of study has the advantage over the usual plan of study in that it permits the student to obtain practical experience without interference with his scholastic duties. The plan has the further advantage

in that it will enable a student with limited financial support to pay his own way through school.

Requirements of the cooperative plan of study are exactly the same as those for the conventional program. If the student desires to reduce the length of time he must spend at the University, he may take certain non-professional courses in an accredited school or University Off Campus Center, but in no case can the residence requirement be reduced below nine quarters.

Only students with proven ability will be accepted for the cooperative plan of study. Evidence of the student's ability will be based on previous college record. It is desirable that the applicant have the recommendation of a registered pharmacist.

Applicants interested in the cooperative plan of study should write to the Dean, School of Pharmacy, University of Georgia, Athens, Georgia.

SPECIAL REGULATIONS

CLASS ATTENDANCE—Students in the School of Pharmacy must observe strict absence regulations administered by the Dean of the School of Pharmacy. Absence from classes or other evidence of indifference on the part of a student results in failures; and, since students in the School of Pharmacy are preparing for a definite professional career, indifference to college work will not be condoned. A student who incurs an excessive number of absences may be placed on probation or dismissed from the University.

SPECIAL SCHOLARSHIP REQUIREMENTS—In addition to the general University requirements relative to scholarship, the following requirement must be met by all pharmacy students:

"Any student registered in the School of Pharmacy who, at the end of the second year, does not have a weighted average of 70 or more in all work taken since entering the School of Pharmacy will not be entitled to continue in attendance in the School except by special permission of the Pharmacy faculty. Such permission will be granted only in exceptional cases."

A student will not be permitted to register for the same course more than twice within any twelve month school year.

At least a grade of "C" must be earned in all required Pharmacy courses and approved substitutes, before credit for the course will be given toward graduation.

MINIMUM ACADEMIC LOAD—Second and third year professional students registered in the School of Pharmacy must carry a minimum academic load of thirteen credit hours. Failure to earn thirteen credit hours of work in any quarter will place the student on academic probation.

CLASSIFICATION OF STUDENTS—Students will be classified as first, second and third year professional students. To be so classified a student must take the required courses and maintain an academic average of C.

LIMITATION OF STUDENT EMPLOYMENT—Since it is realized that the classroom work is only a part of the student's program in securing an education, a student should not accept employment which will interfere with his scholastic program. A student who makes a poor scholastic record will be required to reduce his working load or his scholastic load.

STUDENT AID

There are available a number of assistantships to students working their way through school. These are generally reserved for students who have had one or more quarters in the School of Pharmacy.

A number of scholarships, such as the Lane-Liggett-Rexall Scholarship, the Jacob G. Smith Scholarship, The Women's Auxiliary of the Georgia Pharmaceutical Association Scholarship, the Georgia Pharmaceutical Association Scholarship and the J. D. Stetson Coleman Scholarship are available to deserving students.

The American Foundation for Pharmaceutical Education offers scholarships to deserving students who need financial assistance to complete their education. Second and third year students with high academic averages are eligible.

The Women's Auxiliary of the Georgia Pharmaceutical Association lends a small amount of money each year to deserving students in the second and third years who are making creditable marks. This loan is handled by the Auxiliary on recommendation of the Dean of the School of Pharmacy.

Those students planning pre-pharmacy are encouraged to make application for one of the hundred or more general University scholarships. Pre-pharmacy scholarships will also be available in other institutions through the Georgia Pharmaceutical Association.

Applicants should take college board examinations in the fall and submit their application for scholarships shortly after the first of the year.

THE ROBERT CUMMING WILSON AWARD

The Robert Cumming Wilson Award is given to a member of the third year class in pharmacy who excels in scholarship, character and interest in the ideals of pharmacy. The amount of this award depends on the income from a fund set aside for this purpose by I. Z. Harris, Class of 1915. The minimum is fifty dollars.

ATLANTA DRUG AND CHEMICAL CLUB AWARDS

The Atlanta Drug and Chemical Club annually awards two cash prizes of twenty-five dollars each. One prize is given to an honor student who excels in pharmacy, and the other is given to an honor student who excels in pharmaceutical chemistry. Third year professional students are eligible for the prize.

RHO CHI AWARD

The Alpha Kappa Chapter of Rho Chi, national honorary Pharmaceutical Society, each year offers an award to an outstanding first year student.

THE HARRIS AWARD

The Harris Award is given to a member of the second year class in pharmacy who excels in scholarship, character and interest in the ideals of pharmacy. The amount of this award depends on the income from a fund set aside for this purpose by I. Z. Harris, Class of 1915. The minimum is \$50.

LAMBDA KAPPA SIGMA AWARD

Alpha Kappa Chapter of Lambda Kappa Sigma, women's pharmaceutical sorority, each year offers an award to the outstanding woman student in recognition of her achievements.

OTHER AWARDS

Additional awards are made by pharmaceutical firms in recognition of outstanding achievements in extra-curricular activities and also to students judged outstanding in practical pharmacy. These prizes usually consist of coveted pharmacy reference books.

STUDENT ACTIVITIES

UNIVERSITY ACTIVITIES—Since the School of Pharmacy is an integral part of the University, its students participate in all University educational, fraternal, literary, and social activities.

STUDENT BRANCH OF THE AMERICAN PHARMACEUTICAL ASSOCIATION—In addition to general activities of the University, students in the School of Pharmacy maintain a Student Branch of the American Pharmaceutical Association, the function of which is to establish a closer fraternal and social relationship among students in pharmacy and to broaden their outlook by bringing in speakers on topics related to some health activity.

All students are urged to become active members of this organization.

GEORGIA PHARMACIST—The official publication of the Student Branch of the American Pharmaceutical Association is the *Georgia Pharmacist*. It is published by the students and is mailed to all pharmacists in the State of Georgia and to the alumni of the School of Pharmacy.

RHO CHI—Alpha Kappa Chapter of Rho Chi was established at the University of Georgia in 1949. Charters for chapters of this organization are granted only to groups in schools or colleges that are members in good standing of the American Association of Colleges of Pharmacy. Eligibility for membership in the Society is based on high attainment in scholarship, character, personality, and leadership.

KAPPA PSI—The professional pharmaceutical fraternity of Kappa Psi, Gamma Phi Chapter, was established at the University of Georgia in 1951. Eligible students are selected by the membership of the fraternity.

PHI DELTA CHI—The professional pharmaceutical fraternity of Phi Delta Chi, Alpha Iota Chapter, was established at the University of Georgia in 1937. After a period of inactivity, this Chapter was reactivated in 1952. Eligible students are selected by the membership of the fraternity.

LAMBDA KAPPA SIGMA—The women's professional pharmaceutical sorority of Lambda Kappa Sigma, Alpha Kappa Chapter, was established in 1954. Eligible women students are selected by the membership of the sorority.

ACCREDITATION

The School of Pharmacy, the University of Georgia, Athens, Georgia, is accredited by the American Council on Pharmaceutical Education.

PRE-PHARMACY CURRICULUM

KENNETH L. WATERS, *Dean*

MISS MONA MAYHORN, *Pre-Pharmacy Adviser*

In order to be admitted to the professional program in the School of Pharmacy, the student must have completed a minimum of 90 quarter hours of pre-pharmacy courses, exclusive of Basic Military and Physical Education. Students with high academic average, having 90 hours of credit may be admitted with not more than fifteen quarter hours of deficiencies in re-

quired courses, provided such deficiencies may be completed during the first professional year.

	Qtr. Hrs.		Qtr. Hrs.
Chemistry 121-122-223	15	Economics 105	5
English (Must include 101 & 102)	15	Political Science 101	5
Human Biology 101-102	10	Physics 127	5
Zoology 226	5	General Electives**	15
History*	5	Military 1-2, Air Science 5-6	12
Mathematics 100-101	10	Physical Education for Men	0
		Physical Education for Women.....	10
		Total	100-102

Application to the School of Pharmacy will normally be made by April 1. Those students taking pre-pharmacy work on the University campus will normally make application to the Dean of the School of Pharmacy when they have completed five quarters of work.

Candidates will be expected to have satisfactorily completed the above program prior to the date of starting professional courses.

PROFESSIONAL PROGRAM

FIRST PROFESSIONAL YEAR

	Hours		Hours
Pharmacy Orientation 320.....	3	Pharmacy Law 390.....	3
Pharmaceutical Math 323*.....	3	Inorganic Pharmacy 322.....	3
Chemistry 340a-b	10	Physical Pharmacy 378.....	4
Pharmacy Preparations 321.....	3	Chemistry 380	5
Physics 128	5	Electives	10
		Total.....	49

SECOND PROFESSIONAL YEAR**

Junior Dispensing 406-7-8.....	12	Medicinal Chemistry 445-6.....	6
Pharmacognosy 404-5.....	8	Drug Assay 402.....	5
Introductory Pharmacology 450...	4	Biopharmacy 447.....	5
Introductory Medicinal Chemistry 444.....	3	Bacteriology 350.....	5
		Total.....	48

*Students must satisfactorily complete pharmaceutical arithmetic achievement test as a prerequisite for this course.

**Proficiency in typing will be required for admission to the second professional year.

THIRD PROFESSIONAL YEAR

Senior Dispensing 537-8-9.....	12	Pharmaceutical Accounting 510.....	5
Pharmacology 581-2-3	12	Drug Store Operations 596-7.....	8
Public Health 501-2-3.....	3	Field Trips***	0
Bacteriology 352.....	3	Elective	3
Manufacturing 522.....	3		—
		Total.....	49

DESCRIPTION OF COURSES

The University reserves the right to withdraw any courses for which the registration is not sufficient and to offer courses not here listed should sufficient demand arise and teaching facilities and personnel be available.

Unless otherwise indicated all courses meet five times a week and carry five hours credit.

PHARMACY

320. PHARMACY ORIENTATION. 3 hours. *The Staff.*

Lectures will serve to initiate the student into the profession of pharmacy. The history and ethics of the profession will be discussed. A study of pharmacy literature and the system of weights and measures will be introduced.

321. PHARMACY PREPARATIONS. 3 hours. Prerequisite: Chemistry 340a or concurrent registration. *The Staff.*

A discussion of the technical operation of pharmacy, including definitions and official preparations.

322. INORGANIC PHARMACY. 3 hours. Prerequisites: Chemistry 340a and Pharmacy 321. *Mr. Millikan.*

The inorganic preparations of pharmacy with the special application of chemistry to the official preparations.

323. PHARMACEUTICAL MATHEMATICS. 3 hours. *Mr. May.*

A study of calculations involved in the practice of the profession of pharmacy. (Those students showing deficiency in the pharmaceutical arithmetic achievement tests will be required to take remedial work.)

378. PHYSICAL PHARMACY. 4 hours. Prerequisite: Physics 127, Pharmacy 321 and 323. Three lectures and three hour laboratory. *Mr. Thompson.*

A study of certain theoretical concepts of pharmaceutical preparation, including physico-chemical considerations of stability and of manufacturing.

406-407-408. JUNIOR DISPENSING. 12 hours (4 hours each quarter). Three hours lecture and four hours laboratory weekly. Prerequisites: Completion of first professional year requirements. *Mr. Entrekim.*

The general consideration of the underlying principles of prescription compounding. Laboratory work will involve the various types of preparations and the filling of simple prescriptions. A knowledge of typing is required for this course.

501-502-503. PUBLIC HEALTH. 3 hours (1 hour each quarter). Prerequisites: Completion of second professional year requirements. *The Staff.*

A study of the prevention and control of diseases; promotion of public health and welfare; sanitary control of water, food and sewage; municipal, state and federal health regulations; and other problems of a general health nature.

521. SPECIAL TOPICS IN PHARMACY. 2 hours. Two lecture periods or the equivalent in laboratory periods. *Mr. Entrekim and Mr. Hartman.*522. PHARMACEUTICAL MANUFACTURING. 3 or 5 hours. Two lecture and nine laboratory hours weekly. *Mr. Entrekim and Mr. Hartman.*

Lectures to include a study of different equipment used in pharmaceutical manufacturing. Laboratory work to involve pilot plant scale manufacturing.

*The History Qualifying Examinations will not fulfill this requirement.

**Electives should be chosen from the Humanities, Social Sciences, Psychology, or Languages and should not be Science, Business or applied courses. Proficiency in typing will be required for admission to the second professional year but will not be credited toward electives.

***Students annually visit hospitals, pharmaceutical manufacturers and wholesale houses and are required to participate in such trips.

523. **ADVANCED PHARMACEUTICAL MANUFACTURING.** Two lecture and nine laboratory hours weekly. Prerequisite: Pharmacy 522. *Mr. Entrekin and Mr. Hartman.*

Lecture and laboratory work will place special emphasis on the more complicated procedures encountered in manufacturing. Such topics as enteric coating, tablet granulations, special and parenteral solutions, and organization of pharmaceutical manufacturing establishments will be taken up.

537-538-539. **SENIOR DISPENSING.** 12 hours (4 hours each quarter). Two hours lecture and six hours laboratory weekly. Prerequisites: Completion of second year professional requirements. *Mr. Hartman.*

A thorough study of prescription compounding, with emphasis on prescription reading and incompatibilities. The filling of prescriptions received by telephone is stressed. The lectures present and discuss the problems confronting the practicing pharmacist. A knowledge of typing is required for this course.

595. **HOUSEHOLD AND ANIMAL HEALTH PRODUCTS.** (Elective). 3 hours. Three hours lecture and recitation. Prerequisite: Completion of second professional year requirements.

The study of fumigants, rodenticides, insecticides, fungicides, weedicides, parasiticides and toxins, serums, vaccines and related products commonly sold in the drug store. Ethics, economic and legal aspects will be stressed.

598. **UNDERGRADUATE RESEARCH PROBLEM.** (Elective). 3 to 5 hours. Prerequisites: Completion of second year professional requirements with an average grade of "B". *The Staff.*

An introduction to research. The course is designed to acquaint the student with the techniques of research. A problem will be assigned and the student will be expected to do library and laboratory work necessary to prepare an acceptable report.

PHARMACOGNOSY

404-405. **PHARMACOGNOSY.** 8 hours. (4 hours each quarter). Four hours lecture and recitation. Prerequisites: Pharmacy 320, Chemistry 340a and ten hours of biology. *The Staff.*

History, distribution, collection, commerce, preservation, classification, active constituents, titles, synonyms, definitions, official preparations, therapeutic use and common proprietaries of drugs of vegetable and animal origin. Specimens are furnished each student for macroscopical and organoleptic identification.

PHARMACOLOGY

450. **INTRODUCTORY PHARMACOLOGY.** 4 hours. Four hours lecture weekly. Prerequisites: Completion of first professional year requirements.

Principles of physiology as applied to the human are taught. Mechanisms, regulations and integrations involved in the functioning of the various tissues and organ systems of the body are studied with consideration given to those functions altered by the administration of drugs.

581-582-583. **PHARMACOLOGY.** 12 hours. (4 hours each quarter). Four hours lecture weekly for 581, three hours lecture and three hours laboratory weekly for 582 and 583. Prerequisites: Pharmacology 450, Pharmacy 406 and 447. *Mr. Wade.*

An introduction to pharmacology dealing with the modification of the normal physiological process of the body by the presence of the more common drugs used in medicine. Drugs from the United States Pharmacopoeia, National Formulary and selected items from the New and Non-Official Drugs are discussed, according to pharmacological action, toxicology, and therapeutic application.

PHARMACEUTICAL ADMINISTRATION

390. **PHARMACEUTICAL LAW.** 3 hours. Three hours lecture and recitation. Prerequisite: Pharmacy 320. *Mr. Waters.*

A review of the various laws involved in pharmaceutical prescription practice and a study of the state and federal regulations including organization enforcement procedures. Consideration is also given to case histories involving negligence and malpractice.

510. PHARMACEUTICAL ACCOUNTING. Five hours lecture and recitation. *Business Administration Staff.*

Elementary accounting principles and procedures suitable for small and medium size drug stores operated by independent owners.

596-597. DRUG STORE OPERATIONS. 8 hours. (4 hours each quarter). Three hours lecture and three hours laboratory weekly. Prerequisites: Completion of second professional year requirements, Pharmacy 510, Economics

105. *The Staff.*

A study of the methods, policies and practices pertaining to modern merchandising techniques, as buying, pricing, sales promotion, etc., the planning of lay-out and physical equipment that has proven successful in drug stores of America. This course will also cover the principles of stock control and advertising.

SPEECH 103. ORAL COMMUNICATION.* 3 hours. *Speech Staff.*

Objective analysis of individual speech habits and an individually planned study of appropriate drills and activities for improving the skills of everyday speech.

BUSINESS ADMINISTRATION 7. PERSONAL TYPING*. No academic credit (five periods a week). *Business Administration Staff.*

An introductory course in typewriting designed to teach in a minimum of time typewriting for personal use. Should be taken before registering for Pharmacy 537.

BUSINESS ADMINISTRATION 108. BUSINESS CORRESPONDENCE.* 3 hours. *Business Administration Staff.*

Qualities and principles of effective business letter writing; practice in writing various types of letters and reports.

JOURNALISM 577. PUBLIC RELATIONS (PUBLICITY).* *Journalism Staff.*

A study of problems and techniques. Analyses of publicity campaigns and discussions of the ways in which various media can be utilized.

PHARMACEUTICAL CHEMISTRY

402. DRUG ASSAY. Three hours lecture, six hours laboratory. Prerequisites: Physics 127, Chemistry 380. *Mr. Millikan.*

Official and standard methods of assay of some common pharmaceuticals. The student is familiarized with instrumentation procedures as used by the modern pharmaceutical firm.

444. INTRODUCTION TO ORGANIC MEDICINAL CHEMISTRY. 3 hours. Prerequisites: Chemistry 340a-b. *Mr. LaRocca and Mr. Thompson.*

Chemical and physical properties of organic medicinal substances with specific emphasis on the relationship of these properties to pharmacological activity.

445-446. MEDICINAL CHEMISTRY. 6 hours. (3 hours each quarter). Prerequisites: 444. *Mr. LaRocca and Mr. Thompson.*

A study of important pharmaceutical organic products, natural and synthetic, to include sources, properties, reactions, and methods of production.

447. BIOPHARMACY. Four hours lecture, three hours laboratory. Prerequisites: Chemistry 380, Physics 128, Pharmacy 444, or concurrent registration. *Mr. Thompson.*

A study of biochemistry and those problems closely related to pharmacy which are of importance to the practicing pharmacist.

The following courses in the Pharmacy Curriculum are taught by the faculty of the College of Arts and Sciences. A description of the courses may be found in the College of Arts and Sciences section of this Catalogue.

BACTERIOLOGY 350, General Microbiology; BACTERIOLOGY 352, Microbiology and Disease; CHEMISTRY 340a-b, Organic Chemistry; CHEMISTRY 380, Quantitative Inorganic Analysis; ZOOLOGY 226, General Zoology.

*Elective credit—highly recommended for all students.

GRADUATE COURSES

Unless otherwise specified, all laboratory periods are three hours.

For any graduate course in pharmacy the prerequisites are two senior division courses in pharmacy or related subjects, plus any specified prerequisites.

721. SPECIAL TOPICS IN PHARMACY. 2 hours. *Mr. Entrekin* and *Mr. Hartman*.

A study of newer pharmaceutical preparations including the detailed examination of preparations involving chemical reactions and special assigned topics.

722. PHARMACEUTICAL TECHNOLOGY. Two lectures and six laboratory hours. *Mr. Entrekin* and *Mr. Hartman*.

Lectures to include a study of different equipment used in pharmaceutical manufacturing. Laboratory work to involve pilot plant scale manufacturing.

723. ADVANCED PHARMACEUTICAL TECHNOLOGY. Prerequisite: Pharmacy (522) 722. Two lectures and six laboratory hours. Offered in alternate years. *Mr. Entrekin* and *Mr. Hartman*.

Lecture and laboratory work will place special emphasis on the more complicated procedures encountered in manufacturing. Such topics as enteric coating, tablet granulations, special and parenteral solutions, and organizations of pharmaceutical manufacturing establishments will be taken up.

724. HOSPITAL PHARMACY. 3 hours. Two hours lecture and three hours laboratory. *Mr. Hartman* and *Mr. May*.

A course designed to acquaint the student with the operation of a hospital-pharmacy.

810. PHARMACEUTICAL CONTROL AND ANALYSIS. Two lectures and six hours laboratory. *Mr. Millikan* and *Mr. Thompson*.

Lectures, reading and analytical procedures of more complicated nature taken from U.S.P., N.F., and A.O.A.C.

811-812. SYNTHETIC MEDICINAL PRODUCTS. 10 hours. Five hours lecture a quarter for two quarters. *Mr. LaRocca*.

The chemistry and synthesis of anti-histaminics, etc. Special emphasis to be placed on correlation of structure with physiological activity and industrial application of processes.

814-815. ORGANIC PHARMACEUTICAL SYNTHESIS. 5 to 10 hours. One conference and eight laboratory hours. *Mr. LaRocca* and *Mr. Waters*.

Application of synthetic procedures in the preparation of various medicinal chemicals and their intermediates.

830. RADIATION PRINCIPLES IN PHARMACY. Prerequisite: Pharmacy 446. Two hours lectures and two 3-hour laboratories. *Mr. LaRocca*, *Mr. Lassiter*, and *Mr. Hamdy*.

Principles and techniques of radiochemistry and radiobiology as applied to pharmacy.

831. STUDIES IN PHARMACODYNAMICS. Prerequisite: Pharmacy 381. *Mr. Wade*.

The procedures involved in modern research in pharmacological analysis and in the determination of the site of action and nature of action of drugs through participation in departmental researches upon problems in pharmacology.

832. METHODS IN PHARMACOLOGICAL RESEARCH. Prerequisite: Pharmacy 381. *Mr. Wade*.

Conferences, library projects, and laboratory work designed to prepare the graduate student for professional service in the field of pharmacology.

Address all correspondence to the Dean, School of Pharmacy, University of Georgia, Athens, Georgia.

THE COLLEGE OF AGRICULTURE

ADMINISTRATIVE OFFICERS

CALVIN CLYDE MURRAY, B.S., M.S., Ph.D., *Dean and Coordinator of Agriculture.*

GEORGE HARRIS KING, B.S.A., M.S.A., *Director of Experiment Stations.*

WILLIAM ABNER SUTTON, B.S.A., *Director of the Agricultural Extension Service.*

ROBERT STEVENSON WHEELER, B.S., Ph.D., *Director of Resident Instruction.*

JOHN EDWARD BAILEY, B.S.A., *Horticulturist and Superintendent of the Mountain Experiment Station (Blairsville, Georgia).*

ORIEN LEFRETTS BROOKS, B.S.A., *Branch Station Superintendent (Midville, Georgia).*

EDMUND BROADUS BROWNE, B.S., M.S., Ph.D., *Director of the College Experiment Station.*

JOSEPH PLEDGER CARMICHAEL, A.B.J., M.S.A., *Extension Editor, Division Chairman.*

SIDNEY GRIGSBY CHANDLER, B.S.A., *Chairman Extension Training (Extension).*

HOYT EDWIN CHASTAIN, B.S.A., *District Agent Chairman (Extension).*

ARTHUR FRANKLIN DARDEN, B.S.C., *Fiscal Officer (Extension).*

HAROLD DARDEN, B.S.A., *Assistant State 4-H Club Leader.*

THOMAS JACKSON DAVIS, JR., B.S.A., M.S.A., *District 4-H Club Supervisor.*

GERALD YARBROUGH DUKE, B.S.A., *District Agent Chairman (Extension).*

BYRON DYER, B.S.A., M.S.A., *District Agent Chairman (Extension).*

RICHARD LAWRENCE DYER, *Assistant Comptroller (Tifton, Georgia).*

LINTON WEBSTER EBERHARDT, JR., B.S.F., *Associate Director of the Agricultural Extension Service.*

MARIAN STOVALL FISHER, B.S.H.E., *Assistant State 4-H Club Leader.*

WILLIAM THOMAS FULLILOVE, B.S.A., *Agricultural Economist and Director of the Georgia Experiment Station (Experiment, Georgia).*

JULIA GRANT, B.B.A., *Assistant Comptroller (Experiment, Georgia).*

OTIS EUGENE GRIMES, B.S.A., *District 4-H Club Supervisor (Tifton, Georgia).*

JESSIE H. HARDY, B.S.H.E., *District Agent (Extension).*

MARTHA ROBERTS HARRISON, B.S.H.E., M.S., *District Agent (Extension).*

DEAN DILLARD HAYES, B.S.A., *Branch Station Superintendent (Calhoun, Georgia).*

FRANK PICKETT KING, B.S.A., M.S.A., Ph.D., *Director of the Georgia Coastal Plain Experiment Station (Tifton, Georgia).*

WILLIAM ANSON KING, B.S.A., *District Agent Chairman (Extension).*

LORA MARGUERITE LAINE, B.S.H.E., *District Agent (Extension).*

JOSEPHAS JACKSON LANCASTER, B.S.A., M.S.A., Ph.D., *Head, Extension Education Department.*

RHONWYN LOWRY, B.S.H.E., M.Ed., *Associate State 4-H Club Leader.*

NEAL DUNCAN McRAINEY, B.S.A., *Branch Station Superintendent (Plains, Georgia)*.

LOUISE MEEKS, B.S.H.E., *District Agent (Extension)*.

CHARLES ROGERS O'KELLEY, M.S.A., *State Agricultural Leader (Extension)*.

JOEL CONDOR RICHARDSON, B.S.A., *District Agent Chairman (Extension)*.

ROBERT JAMES RICHARDSON, B.S.A., *4-H Club Leader, Young Men and Women (Extension)*.

EDDYE BELLE ROSS, B.S.H.E., *State Home Demonstration Leader (Extension)*.

EDNA SUE STANFORD, B.S.H.E., *District Agent (Extension)*.

HARLEY FRANK SHURLING, B.S.A., *District Agent Chairman (Extension)*.

KENNETH TREANOR, B.S.A., *Director Branch Experiment Stations*.

THOMAS LAURICE WALTON, B.S.A., M.S.A., *State 4-H Club Leader (Extension)*.

LLOYD CLAIBORNE WESTBROOK, B.S.A., *District Agent Chairman (Extension)*.

GENERAL INFORMATION

Each state has one institution of higher learning known as a Land-Grant College or University which is approved by officials of the Federal Government for giving college instruction in agriculture and related fields. In Georgia that institution is the University of Georgia, of which the College of Agriculture is an integral part.

The University of Georgia is a member of the American Association of Land-Grant Colleges and Universities. It has been approved by the United States Commissioner of Education for giving college instruction in agriculture and agricultural engineering. The University receives grants from the Federal Government to aid in financing its educational program in these fields. It is officially recognized and approved by the United States Department of Agriculture and other agencies of the Federal Government concerned with farming and related occupations.

The College of Agriculture provides a coordinated and integrated program of research, college teaching, and extension services. It embraces the agricultural experiment stations and the Agricultural Extension Service. Responsibility for administration is vested in the Dean and Coordinator, who is responsible to the President of the University. Under the Dean and Coordinator there are three directors, as follows: a director in charge of instruction; a director in charge of extension work; and a director in charge of experiment stations. At each of the experiment stations, including Athens, Experiment, and Tifton, there is a director in charge.

In the College of Agriculture there are eleven subject matter fields or divisions, each of which embraces research, teaching, and extension, and each of which is in the charge of a chairman. These divisions are: agronomy, agricultural economics, agricultural engineering, animal husbandry, dairy, entomology, food technology, horticulture, landscape architecture, plant pathology, and poultry. In addition, there are several schools and colleges with which relationships have been established for conducting programs including teaching, research, and extension services; these include fields such as bacteriology, botany, chemistry, education, entomology, forestry, home economics, and veterinary medicine.

COURSES AND DEGREES

The College of Agriculture offers degree courses in agriculture, agricultural engineering, and landscape architecture. It is also recommended that students seeking admission to the School of Veterinary Medicine register in the College of Agriculture while enrolled in the pre-veterinary program.

Upon completion of the twelve-quarter course outlined, students registered in agriculture may receive the degree of Bachelor of Science in Agriculture, and students in agricultural engineering, the degree of Bachelor of Science in Agricultural Engineering.

The Department of Landscape Architecture, a department in the College of Agriculture, offers two degree courses; one, the professional degree B.L.A.—Bachelor of Landscape Architecture; the other, B.S.L.A.—Bachelor of Science in Landscape Architecture.

The Master of Science degree is offered in agriculture, agricultural engineering, and landscape architecture. The Ph.D. degree is offered in Plant Sciences, Animal Nutrition, Dairy Manufacturing, and Food Technology. For further information concerning these degrees, consult the Graduate Bulletin.

Many short courses of a practical and intensive nature are offered by the College of Agriculture. Announcements of these courses will be made throughout the year. Any course will be offered for which there is sufficient demand. A citizen of Georgia desiring to take any such course should write to the Dean of the College of Agriculture, indicating the field or problem in which instruction is desired.

ADMISSION REQUIREMENTS FOR VETERINARY MEDICINE

In order to matriculate in the School of Veterinary Medicine, a student must present a minimum of 89 quarter hours' credit, exclusive of Basic Military and Physical Education, with a grade of C or better.

To meet these requirements, a student may register in the College of Agriculture and take the following courses:

English 101, 102	*History 100
Speech 108	Physics 120
Botany 121, 122	*Political Science 101
Zoology 225, 226	Animal Husbandry 358
Chemistry 121, 122, 340a, 340b	Plant Pathology 358 or Zoology 401
Animal Husbandry 101,	Mathematics 100, 101
Dairy 103, Poultry 160	Military or Air Science (six quarters)
	Physical Education (six quarters)

All candidates for admission into the entering class in September each year will be required to take during the preceding spring, a veterinary medical aptitude test. The results of this test will become a part of the student's credentials for admittance into the School of Veterinary Medicine.

Any student who is registered in the College of Agriculture may, upon completion of pre-veterinary requirements, continue with the agricultural curriculum, should he fail to gain admittance to the School of Veterinary Medicine. Such students will be able to apply all credits earned to requirements for the B.S.A. degree.

*These requirements may be satisfied by passing qualifying examinations in lieu of taking courses of instruction.

B.S.A. DEGREE IN CONJUNCTION WITH D.V.M. DEGREE

A student in the School of Veterinary Medicine may in conjunction with his work toward the D.V.M. degree, complete the requirements for the B.S.A. degree by taking three quarters of additional work prior to, during or subsequent to his work in the School of Veterinary Medicine. A major in Animal Husbandry, Dairy, Entomology or Poultry would require the least amount of extra course work on the part of the student.

It is preferred that students working for both the B.S.A. and D.V.M. degrees complete three years of pre-veterinary work in the College of Agriculture. The first two years are the same as those for B.S.A. students except Chemistry 340a and b are substituted for Chemistry 260 and one elective in the sophomore year. The third year should be directed toward completing courses for the major, one minor and certain science selections. The B.S.A. would be granted after the student had completed the first year in the School of Veterinary Medicine.

AGRICULTURAL CURRICULUM FOR THE B.S.A. DEGREE

The curriculum for the freshman and sophomore years provides a core of general education and basic science courses as well as introductory courses in agricultural science. The curriculum is designed to allow flexibility of choice of agricultural and non-agricultural electives. It is also designed so that students may transfer to the College of Agriculture from non-agricultural colleges without loss of time or credit if their credits include the equivalent of the general education and basic science portion of this curriculum.

Students in the College of Agriculture working for the degree of Bachelor of Science in Agriculture may major in the following departments: (1) *Agricultural Chemistry*; (2) *Agricultural Economics*; (3) *Agricultural Extension Training*; (4) *Agronomy*, including soils; (5) *Animal Husbandry*; (6) *Botany*; (7) *Dairy*; (8) *Entomology*; (9) *Food Technology*; (10) *General Agriculture*; (11) *Horticulture*; (12) *Plant Pathology and Plant Breeding*; (13) *Poultry*; and (14) *Agricultural Education*.

There is a demand for College of Agriculture graduates trained in the various media of communications. Because of this, arrangements have been made with the School of Journalism for students in any department in the College of Agriculture to obtain the equivalent of a major in agricultural journalism. This is possible because of the flexibility permitted in the selection of minor courses and general electives.

Generally the courses in agricultural journalism will be selected from the following journalism courses: 1, 350 or 368—Introductory Courses; 456—Magazines; 557—Advertising; 558—Feature Writing; 559—Book Reviewing; 577—Public Relations; 580—Radio and Television; 581—Radio and Television News; 582—Radio and Television Programming.

A student who majors in one of the subject matter departments in the College of Agriculture has a choice of following a program or option in Agricultural Science or in Agricultural Administration.

The Agricultural Science Option. This program is designed to provide training in basic and applied sciences and to prepare students for graduate study, teaching, extension, research, farming, or for employment in State and Federal agencies and in private industry.

The Agricultural Administration Option. This option providing training in technical agriculture and in business management is designed to prepare

students for employment in agri-business. Agri-business firms process, package, transport, finance, store and merchandise farm products, others sell feed, seed, fertilizer, drugs, vaccines, insecticides, machinery and other supplies to farmers.

BACHELOR OF SCIENCE IN AGRICULTURE

FRESHMAN AND SOPHOMORE YEARS

	Hours
Chemistry 121, 122, 260	15
Botany 121, 122, Zoology 225, 226 (any three)	15
English 101, 102, Speech 108	15
Physics 120	5
Mathematics 100	5
*Political Science 101, History 100	10 (0)
Agriculture Courses (Minimum)	15
**Electives or Special Requirements	10 (20)
Basic Air or Military Science, Physical Education 1-2	12
	—
Total	102

JUNIOR AND SENIOR REQUIREMENTS

A. Administration Option

MAJOR	20 hours
In Agricultural Economics, Agricultural Extension Training, Agronomy, Animal Husbandry, Dairy, Entomology, Food Technology, Horticulture, Plant Pathology, Plant Breeding or Poultry.	
AGRICULTURAL ECONOMICS: 304, 408, 467	15 hours
BUSINESS ADMINISTRATION: 210, 370 and 10 additional hours approved by faculty advisor	20 hours
SCIENCE SELECTIONS	10 hours
Bacteriology 350, 461, Botany 375, 380, Agronomy 423, Chemistry 223, 380, 451, Economics 105, 312, Geology 125, Mathematics 101, 210, 356, Sociology 431, 433, Plant Pathology 353, 358, Entomology 374, Zoology 390.	
SPECIAL REQUIREMENTS: Mathematics 356 or Economics 312, Agricultural Economics 469 or Business Administration 330	10 hours
ELECTIVES AND/OR ADDITIONAL SPECIAL REQUIREMENTS	30 hours
TOTAL JUNIOR-SENIOR REQUIREMENTS	105 hours
TOTAL FRESHMAN-SOPHOMORE REQUIREMENTS	90 hours***
TOTAL COURSE REQUIREMENTS	195 hours***

JUNIOR AND SENIOR REQUIREMENTS

B. Science Option

MAJOR	20 Hours
In Agricultural Chemistry, Agricultural Economics, Agricul-	

*May be satisfied by passing qualifying examinations.

**Since no credits are earned by passing the Constitutions and History qualifying examinations, elective hours range from 10-20.

***Exclusive of required courses Air 5-6 or Military 1-2 and Physical Education 1-2.

tural Education, Agricultural Extension Training, Agronomy, Animal Husbandry, Botany, Dairy, Entomology, Food Technology, General Agriculture, Horticulture, Plant Pathology, Plant Breeding or Poultry.

SCIENCE SELECTIONS	25 hours
Bacteriology 350, 461, Botany 375, 380, Agronomy 423, Chemistry 223, 380, 451, Economics 105, 312, Geology 125, Mathematics 101, 210, 356, Sociology 431, 433, Plant Pathology 353, 358, Entomology 374, Zoology 390.	
MINOR 1	10 hours
May be in any one department of the University.	
MINOR 2	10 hours
Must be in the College of Agriculture.	
SPECIAL REQUIREMENTS—not more than.....	20 hours
GENERAL ELECTIVES—not less than.....	20 hours
TOTAL JUNIOR-SENIOR REQUIREMENTS.....	105 hours
TOTAL FRESHMAN-SOPHOMORE REQUIREMENTS.....	90 hours*
TOTAL COURSE REQUIREMENTS.....	195 hours*

ORIENTATION COURSE FOR COLLEGE OF AGRICULTURE FRESHMEN

101. (AGRICULTURE) ORIENTATION. 1 hour. *Mr. Wheeler.*

A course designed to aid agricultural freshmen adjust to college life and to better understand the occupational opportunities available to graduates. The functions of the total university, use of libraries, study procedures, organization and functions of the College, state and federal agricultural agencies, personality development, social behavior, student activities, planning a program of study and career opportunities are discussed.

COOPERATIVE GRADUATE COURSE AMONG DEPARTMENTS IN COLLEGE OF AGRICULTURE

830. RADIATION PRINCIPLES IN AGRICULTURE. Prerequisites: Chemistry 651, Botany 380 or Poultry 401 or Physics 228. Two lectures and two 3-hour laboratories. *Mr. Edwards, Mr. Hamdy, Mr. Lassiter and Mr. Miller.*

Principles and techniques of radiochemistry and radiobiology as applied to agriculture.

OPPORTUNITIES FOR SPECIALIZATION

Concentrations offered by the departments of the College of Agriculture and related departments in which agricultural students may major, together with brief statements concerning the opportunities available in each field of specialization, are shown under appropriate departmental headings.

The basic curricula within either the Agricultural Administration or Agricultural Science options, given previously, outline requirements for graduation and suggest departments in which students may specialize.

Each student should consult with the head of the department in which he intends to do his major work for a list of the freshman-sophomore courses required or suggested for a major in that department. A complete list of freshman-sophomore courses required by majors in Agricultural Education is given under the listings of that department.

In order to acquaint students with the fields in which one may specialize, the opportunities in each, and the courses recommended by the several departments, the following *concentration programs* have been developed by

*Exclusive of the required courses Military 1-2 or Air 5-6, and Physical Education 1-2.

the departments in which agricultural students may major during the junior and senior years. These are suggestive rather than definite requirements. The concentration for each student is an individual program, arranged in consultation with the members of the staff in the department in which the major is taken. In the main, however, the following programs, as presented by the several departments, include the courses which the majority of students will elect with the selection of the field of specialization.

Unless otherwise indicated, all courses are offered in the College of Agriculture buildings on the South Campus of the University.

The University reserves the right to withdraw any course for which the registration is not sufficient and to offer courses not here listed should sufficient demand arise and teaching facilities and personnel be available.

Unless otherwise indicated all courses will meet five times a week and carry five hours' credit.

AGRICULTURAL CHEMISTRY*

(Chemistry Building, South Campus)

Instruction in this division of the Department of Chemistry is designed primarily to fit the needs of agricultural students. By means of lectures, recitations and laboratory work, students are taught the fundamental chemical principles underlying and controlling plant and animal life.

The curriculum for majors in agricultural chemistry is designed to prepare students for professional employment in experiment stations, in governmental and industrial chemical or biochemical laboratories, and as chemical or biochemical staff members of colleges, universities, hospitals and allied chemical industries. This curriculum is highly recommended for students seeking professional status and for those who plan to do graduate study.

CURRICULUM FOR THE B.S.A. DEGREE WITH A MAJOR IN CHEMISTRY

FRESHMAN AND SOPHOMORE YEARS

	Hours		Hours
Eng. 101, 102, Speech 108.....	15	Botany 121, 122.....	10
Math. 100, 101, 210.....	15	Math 254, 255.....	10
Chem. 121, 122, 223.....	15	Physics 127, 128.....	10
	—	Chem. 380, 260 or 340a, 340b.....	15
	45		—
			45

JUNIOR AND SENIOR YEARS

	Hours		Hours
Zoology 225 or 226.....	5	Chem. 342, 441, 451, 480 or 580.....	20
Physics 239	5	*Chemistry Elective	5
Chemistry 490 a, b, c.....	15	Electives in the College of Agri-	
German 101, 102.....	10	culture	25
Agronomy 210	5		—
Elective	5		50
	—		
	45		

Total: 185 Hours

*From Chemistry 420, 421, 424, 452, 480, 481, 560, and 580.

Political Science 101 and History 100 may be satisfied by examination.

*Fundamental Chemistry courses are a subdivision of the Department of Chemistry of the College of Arts and Sciences. For other offerings see the section of the College of Arts and Sciences.

- NOTE: (a) A scholastic average of "B" must be made for the freshman and sophomore years in order to continue this curriculum. An average of "B" must be maintained for the entire four years.
- (b) This curriculum meets the prescribed standards of the American Chemical Society for the training of chemists.

AMERICAN CHEMICAL SOCIETY CERTIFICATION: All students who satisfactorily complete this curriculum are automatically certified by the department of chemistry to the American Chemical Society.

CHEMISTRY

121, 122. GENERAL CHEMISTRY. Four lectures or recitations and one laboratory period per week each quarter. *The Staff and Assistants.*

The first course covers the chemistry of the non-metallic elements, including a systematic treatment of chemical principles and their applications. The second course is a continuation of the first course, including a general survey of the metallic elements.

223. QUALITATIVE INORGANIC ANALYSIS. Two lectures or recitations and three laboratory periods. Prerequisite: Chemistry 122. *Mr. Waggoner, Mr. Whitehead, Mr. Wilder, and Assistants.*

The fundamental theories of qualitative analysis and analyses of common cations and anions by semi-micro methods.

260. AGRICULTURAL CHEMISTRY. Four lectures or recitations and one laboratory period. Prerequisite: Chemistry 122, or with consent of Head of Department. *Mr. Coggin, Mr. Philbrook, Mr. Wilder, and Assistants.*

A brief terminal introduction to aliphatic organic chemistry with material of special interest to students of Agriculture, Home Economics, and Forestry.

380. QUANTITATIVE INORGANIC ANALYSIS. Two lectures and three three-hour laboratory periods. Prerequisite: Chemistry 223. *Mr. Whitehead and Assistants.*

The fundamental theories of quantitative analysis and typical analyses involving volumetric and gravimetric methods.

451. PHYSIOLOGICAL CHEMISTRY. Four lectures or recitations and one laboratory period. Prerequisites: Chemistry 260 and a course in botany or biology or zoology or animal husbandry or poultry. *Mr. Coggin, Mr. Cormier, and Mr. McRorie.*

Fundamental principles of physiological chemistry in the animal body, including the chemistry of foods, digestion, metabolism and excretions.

852. PHYSIOLOGICAL CHEMISTRY. Four lectures or recitations and one laboratory period. Prerequisite: Chemistry 651. *Mr. Coggin, Mr. Cormier, or Mr. McRorie.*

The metabolism of carbohydrates, lipids, and proteins.

855.1. PHYTOCHEMISTRY. Three lectures. Prerequisite: Chemistry 451, and one course in botany. *Mr. Cormier or Mr. McRorie.*

A study of the compounds and chemical principles encountered in plants.

DEPARTMENT OF AGRICULTURAL ECONOMICS

(Livestock - Poultry Building, South Campus)

Division Chairman and Head: Fanning. Staff: Aaron, Frazier, Green, Jones, McArthur, Padgett, Proctor, Saunders, Thompson, Woodworth.

The Department of Agricultural Economics offers courses designed to train young men for jobs in agriculture or closely allied vocations. The principal objectives of this type of training are:

(1) To prepare students for positions with the Federal and State departments of agriculture, and in the teaching, research, and agricultural extension divisions of land-grant colleges.

These positions require specialized preparation in agricultural economics, agricultural credit, farm finance, land economics, agricultural adjustments, marketing farm products, farm management, and cooperation in agriculture.

(2) To prepare students for entering private business in positions that require fundamental training in farm management, marketing, land use, farm credit, and other similar areas connected with agriculture. The problem of surpluses and the growing importance of distribution are placing added emphasis upon training in agricultural marketing. Adjustments in systems of farming are emphasizing the need for training in the field of farm credit. The great emphasis upon agri-business calls for more training in economics.

(3) To prepare students for graduate work in agricultural economics and marketing farm products.

There continues to be a strong demand for agricultural economists with post-graduate training. An expanding program of research in agricultural economics in the land-grant colleges and in the United States Department of Agriculture has opened more positions for such agricultural economists than could be filled. Demand by private firms for men with post graduate training has increased greatly.

A student interested in the subject of agricultural economics is advised to study the suggested concentrations and to read the descriptions of courses that may be included in his program. He should then consult the Head of the Department of Agricultural Economics.

Each student must present a program of study to the professor designated by the Head of the Department of Agricultural Economics. This professor will be the student's adviser. A program of study in agricultural economics must be prepared and submitted during the last quarter of a student's sophomore year unless he is a transfer student, when it must be submitted during his first quarter's attendance.

CONCENTRATION IN AGRICULTURAL ECONOMICS

Science Option

JUNIOR AND SENIOR YEARS

This concentration is suggested for those who desire a comprehensive knowledge and understanding of economics applied to agriculture and those who later on may formulate a more specialized program of study.

MAJOR: Agricultural Economics 301, 304, 351, and 364 20 Hours

SCIENCE SELECTIONS:

Mathematics 101, and Philosophy 104 suggested
among science selections 25 Hours

FIRST MINOR: Economics 326 or 334 and Business
Administration 370 10 Hours

SECOND MINOR: Must be in one department of the
College of Agriculture 10 Hours

SPECIAL REQUIREMENTS: Agricultural Economics 458 or 467 5 Hours

ELECTIVES: Selected with the Head of the Department..... 35 Hours

CONCENTRATION IN AGRICULTURAL ECONOMICS

Administration Option

This concentration is designed to train men for jobs in agricultural businesses, including firms marketing agricultural commodities and those providing supplies, equipment and services to producers.

MAJOR: Agricultural Economics 301, 304, 408, 467	20 Hours
AGRICULTURE ELECTIVES: (other than agricultural economics)	15 Hours
BUSINESS ADMINISTRATION: 110, 111, 151, 370	20 Hours
SCIENCE SELECTIONS: Selected with Departmental approval	10 Hours
SPECIAL REQUIREMENTS: (Mathematics 356 or Economics 312; Agricultural Economics 469 or Economics 330)	10 Hours
ELECTIVES: Selected with Departmental approval.....	30 Hours

CONCENTRATION IN AGRICULTURAL MARKETING

Science Option

JUNIOR AND SENIOR YEARS

This concentration is designed to train men for jobs in agricultural marketing, including professional positions in teaching, extension, and research in this field.

MAJOR: Agricultural Economics 304, 400, 403, 408	20 Hours
SCIENCE SELECTIONS: Mathematics 101, and Philosophy 104 suggested among science selections	25 Hours
FIRST MINOR: May be in any one department in the University (Recommended: Business Administration 110, 111, 370, any two)	10 Hours
SECOND MINOR: Must be in one department of College of Agriculture	10 Hours
SPECIAL REQUIREMENTS: Agricultural Economics 467	5 Hours
ELECTIVES: Selected with Departmental approval	35 Hours

CONCENTRATION IN FARM FINANCE

Science Option

JUNIOR AND SENIOR YEARS

This concentration is designed to train men for jobs with the federal land banks, production credit associations, the Farmers Home Administration, farm loan department of commercial banks, and the finance departments of cooperatives and other corporations.

MAJOR: Agricultural Economics 301, 304, 351, 469	20 Hours
SCIENCE SELECTIONS: One course in Sociology required	25 Hours
FIRST MINOR: May be in any one department of the University..... (Recommended: Economics 326 and 330 or 334)	10 Hours
SECOND MINOR: Must be in one department of the College of Agriculture	10 Hours
SPECIAL REQUIREMENT: Agricultural Economics 467	5 Hours
ELECTIVES: Selected with Departmental approval	35 Hours

CONCENTRATION IN FARM MANAGEMENT

Science Option

JUNIOR AND SENIOR YEARS

This concentration is recommended for students who expect to become county agents, teachers of agriculture, farm operators, farm managers, land appraisers or do other work involving plans for organization and management of farms.

MAJOR: Agricultural Economics 301, 304, 364, 402.....	20 Hours
SCIENCE SELECTIONS: Bacteriology 350 or Entomology 374, Plant Pathology 353 or 358 required	25 Hours
FIRST MINOR: May be in any department of the University	10 Hours
SECOND MINOR: Agronomy 320 or 321 and 353 or 356 or 458	10 Hours
SPECIAL REQUIREMENTS: Animal Husbandry 373, Agricultural Economics 351, and 458	15 Hours
ELECTIVES: Selected with Departmental approval	25 Hours

AGRICULTURAL ECONOMICS

104. FARM ENTERPRISES. 3 hours. *Mr. Frazier and the Staff.*

A study of various farm enterprises with emphasis upon methods most commonly used in calculating receipts, cost, and income on a farm. To familiarize students with the cost and income-producing characteristics of various farm enterprises including economic planning.

110. RURAL ECONOMICS. 3 hours. *Mr. Fanning.*

Introduction to economics of farming, student orientation to entire field of agricultural economics, application of economics to farm problems.

301. FARM ORGANIZATION AND MANAGEMENT. Three lectures and two laboratory periods. Prerequisites: Agricultural Economic 104 and 110, Agronomy 101, Animal Husbandry 101, and Mathematics 100. *Mr. Frazier or Mr. Proctor.*

A scientific approach to the study of individual farm programs for the purpose of determining methods to be used for increasing farm income.

304. ECONOMICS OF AGRICULTURAL MARKETING. Prerequisites: Agricultural Economics 110. *Mr. Thompson or Mr. Frazier.*

A general course in marketing farm products describing and analyzing marketing functions and market agencies; illustrated by visits to marketing concerns. General purpose to enable students to have a comprehensive understanding of the principles of agricultural marketing.

310. APPLIED ECONOMICS OF AGRICULTURE. Prerequisites: Agricultural Economics 110, or equivalent, and Mathematics 100. *Mr. Proctor.*

The principles of economics as applied to production, distribution, prices, credit, taxation, demand, supply and comparative advantage.

351. AGRICULTURAL CREDIT. Prerequisites: Agricultural Economics 110, Mathematics 100 and Political Science 101. *Mr. Proctor.*

Principles of finance applied to farm credit organizations. Practices and principles of financing individual farms.

364. LAND ECONOMICS. Prerequisites: Agricultural Economics 110, Agronomy 210 and Political Science 101. *Mr. Proctor.*

An appraisal of the agricultural use of land in the United States with special attention to Georgia land. Designed to meet current needs for training in application of economics to use of land by farmers under changing political and social conditions.

400. COOPERATION IN AGRICULTURE. Prerequisite: Agricultural Economics 304, 351, or equivalent. *Mr. Thompson.*

A study of cooperative marketing associations, their organization, and practices. A discussion of philosophy and economics of cooperation in agriculture.

401. FARMER MOVEMENTS. Prerequisite: Agricultural Economics 110, Political Science 101, and two senior division courses in Economics or Agricultural Economics. *Mr. Frazier.*

History of agricultural organizations; study of selected rural agencies and organizations; and a study of the relationship between organizations of rural people and their economic well being.

402. **ADVANCED FARM ORGANIZATION AND MANAGEMENT.** Five lectures (with a few special field trips per quarter). Prerequisites: Agricultural Economics 301 and 364 or equivalent, Agronomy 321 or equivalent and Animal Husbandry 373. *Mr. Proctor* or *Mr. Woodworth*.

Analysis of economic facts of individual farm plans and formation of economic models which postulate optimum allocation of land, labor and capital as guides for increased revenue.

403. **MARKETING LIVESTOCK AND LIVESTOCK PRODUCTS.** Prerequisites: Agricultural Economics 110, or equivalent, and one course in livestock production and consent of instructor. *Mr. Frazier*.

An economic study of livestock marketing with emphasis on channels of trade and methods of distribution, prices, standardization, transportation, regulation and supervision and the way in which marketing functions and agencies implement the marketing of livestock.

408. **ECONOMICS OF AGRICULTURAL LABOR UTILIZATION.** Prerequisites: Agricultural Economics 110, 301 and 304 or equivalent and consent of the instructor. *Mr. Thompson*.

Work simplification and other aspects of operational efficiency for farms and agricultural marketing firms including the principles and techniques for improving layout materials handling, work methods, job instruction, working conditions, crew organization and management.

458. **PRINCIPLES OF AGRICULTURAL ECONOMICS.** Prerequisites: Agricultural Economics 110, Mathematics 100, Economics 312 or equivalent and senior standing. *Mr. Proctor* or *Mr. Padgett*.

Application of economic theories and principles to agricultural activities. Causes and effects of agricultural surpluses, factors of production, private and governmental control policies, and comparative agricultural enterprises.

467. **AGRICULTURAL PRICES.** Prerequisites: Agricultural Economics 110 and two senior division courses in Economics or Agricultural Economics. *Mr. Thompson*.

An analysis of the principles of cause and effect of farm price fluctuations, the relative instability of farm prices in relation to industrial prices, the development of theoretical concepts as tools of analysis in dealing with farm price problems, including use of index numbers and graphic multiple correlation.

469. **AGRICULTURAL FINANCE.** Prerequisites: Agricultural Economics 110, two senior division courses in Economics or Agricultural Economics, and consent of the instructor. *Mr. Thompson*.

A study of financial problems of agricultural marketing businesses, including: budgetary analysis of financial requirements, sources of funds, discounting future costs and returns, credit management, management of reserves, risk reduction, and taxes.

GRADUATE COURSES

808. **AGRICULTURAL ECONOMICS THEORIES AND PROGRAMS.** Prerequisites: Three senior division courses including Agricultural Economics 458, Economics 334, 406 or equivalent. *Mr. Proctor*.

Review and analysis of economic theories and principles. Fundamentals of analyzing specific cause and effect problems in agriculture. (Given only upon sufficient demand and approval of professor.)

809. **ADVANCED AGRICULTURAL PRICE ANALYSIS.** Prerequisites: Agricultural Economics 467, Economics 312 or equivalent and consent of instructor. *Mr. Thompson*.

A continuation of Agricultural Economics 467; price theory reconciled with the practical problems of collecting and analyzing price data including sources and methods of collecting data, projecting trends, simple and multiple regression, matched pairs analysis, analysis of variance and sampling.

815. **FARM ORGANIZATION ANALYSIS.** Two lectures and three laboratory periods. Prerequisite: Agricultural Economics 301 and 402 plus advanced courses in soils, crops and livestock production and one or more courses in

statistics. *Mr. Proctor* or *Mr. Woodsworth*. (Given only upon sufficient demand and approval of professor.)

Assemble, appraise and analyze economic data of individual farms and make substitutions through budget and programming research.

821. PUBLIC PROBLEMS OF AGRICULTURE. Prerequisite: Agricultural Economics 301, and 458 or equivalent, and Economics 312 and 406 or equivalent. *Mr. Proctor* or *Mr. Woodsworth*.

A group discussion and analysis of agricultural problems that involve institutional and governmental activities and program policies. (Given only upon sufficient demand and approval of professor.)

830-831. AGRICULTURAL ECONOMICS RESEARCH. 5 hours each. Prerequisite: Thirty or more credit hours in agricultural economics or related fields at the senior or graduate level. *Mr. Proctor* or *Mr. Thompson*.

Individual research in problems of agricultural economics conducted by students under the direction and guidance of the staff of the Department of Agricultural Economics.

DEPARTMENT OF AGRICULTURAL EDUCATION

(Peabody Hall, North Campus)

Head: Tolbert. Staff: Duncan, Lester, O'Kelley.

The courses offered in this department prepare men to be teachers of vocational agriculture. Major students in this department have a broad training in agriculture, and, upon the satisfactory completion of the training program outlined, are qualified for certification by the State Department of Education as teachers of agriculture. The program for training teachers of agriculture is carried on in cooperation with the College of Education through its Division of Vocational Education.

In addition to the opportunities for teaching vocational agriculture, graduates who have majored in this department are employed in many specialized positions in the fields of agriculture and education. Such positions capitalize on the technical and professional skills of these graduates for application in various selling, promotional, administrative and research activities as well as all kinds of educational leadership projects.

During one quarter of the senior year, each student does apprentice teaching in a selected off-campus rural school for which fifteen quarter hours of credit are given. The apprenticeship method of training teachers of agriculture has been used since 1928. This system of training enables the apprentice to deal first-hand with the many problems of a teacher of agriculture in a normal situation under the careful supervision of the regular teacher of agriculture and a member of the staff at the University

CONCENTRATION IN AGRICULTURAL EDUCATION

FRESHMAN-SOPHOMORE COURSES. The following 26 hours of junior division agriculture courses are required for the Agricultural Education Concentration: Agricultural Economics 104, 110, Agricultural Engineering 220, Forestry 294, Poultry 160, Animal Husbandry 101 or Dairy 103, Agronomy 101 or Horticulture 101, Agronomy 210.

JUNIOR-SENIOR YEARS

MAJOR:

Education 335.1, 336.1, 346.1, 347.1, 348.1 25 Hours

SCIENCE SELECTIONS: Education 304 or 455 and four of the following courses:

Bacteriology 350, Mathematics 356 or Agronomy 423, Plant Pathology 353, Plant Pathology 358, Entomology 374, Sociology 431 or 433.....	25 Hours
FIRST MINOR: Selected from any department in the University subject to approval of adviser	10 Hours
SECOND MINOR: Agricultural Economics 301, 304	10 Hours
SPECIAL REQUIREMENTS: Food Technology 409, Animal Husbandry 373, Education 349, Agricultural Engineering 203, 207	22 Hours
ELECTIVES	13 Hours

COURSES IN THE COLLEGE OF EDUCATION WITH MAJOR IN AGRICULTURAL EDUCATION

304. EDUCATIONAL PSYCHOLOGY. *Selected members of the staff.*

Special emphasis is placed upon developing competencies on the part of prospective teachers in understanding and applying the psychological principles involved in the growth and development of children and youth. Selected schools will be used as a laboratory.

335.1. CURRICULUM PLANNING. Prerequisites: Education 304 or 455 and consent of instructor. *Mr. O'Kelley and Mr. Tolbert.*

To develop the ability of students to engage in curricular activities in vocational agriculture in the public schools. Emphasis is placed on the procedures for locating, organizing, and summarizing data concerning social and agricultural problems to serve as a guide in formulating curricular activities with high school and adult groups based upon their needs and interests. Directed observation will be carried on in selected schools.

336.1 TEACHING PROCEDURES. Prerequisites: Education 304 or 455, 335.1, and consent of instructor. *Mr. O'Kelley and Mr. Tolbert.*

The purpose of this course is to evaluate teaching procedures used by teachers of vocational agriculture in the public schools. Attention is given to techniques used in teaching vocational agriculture to high school, young farmer, and adult groups. Selected schools will be used whenever practicable for observation of these groups.

346.1, 347.1, 348.1. APPRENTICE TEACHING. 15 hours. Prerequisites: Education 303, 304, 335.1, and 336.1. *Mr. O'Kelley and Mr. Tolbert.*

Prospective teachers of vocational agriculture are placed as apprentices in carefully selected schools of the state for an entire quarter. During this period they are carefully supervised in dealing with the problems of teaching vocational agriculture.

349. SEMINAR IN EDUCATION. 3 hours. Prerequisite: Apprentice Teaching. *Mr. O'Kelley and Mr. Tolbert.*

A seminar dealing with problems emerging from experiences in apprentice teaching. Emphasis will be placed upon the planning of school programs and the place and responsibility of the teacher in the school.

GRADUATE COURSES

671. ADULT EDUCATION. Prerequisites: Four courses in education and consent of the instructor. *Mr. O'Kelley and Mr. Tolbert.*

The primary purposes are: (1) to develop a philosophy of adult education, (2) to develop techniques for discovering adult problems, and (3) to discover and apply appropriate methods of organizing and teaching adult groups.

763. PROBLEMS IN VOCATIONAL EDUCATION. Prerequisites: four courses in education and consent of the instructor. *Mr. O'Kelley and Mr. Tolbert.*

Designed to meet the needs of experienced teachers of agriculture who want additional training in specific problems of teaching. Planned so that students may work at their special interests, individually or in groups.

771. TEACHING PROCEDURES IN VOCATIONAL EDUCATION. Prerequisites: four courses in education and consent of the instructor. *Mr. O'Kelley and Mr. Tolbert.*

Designed for teachers of vocational agriculture who desire guidance in improving teaching

procedures. Consideration is given to the development of curricula based on the needs and interest of students, the planning of units for instruction, teaching, and evaluation.

772. EVALUATION IN VOCATIONAL EDUCATION. Prerequisites: four courses in education and consent of the instructor. *Mr. O'Kelley and Mr. Tolbert.*

The primary purposes are: (1) to guide teachers, supervisors, and administrators to develop the ability to evaluate departments and programs of vocational education; (2) to guide teachers in the development of methods and techniques for evaluating their own instruction.

773. SUPERVISION OF VOCATIONAL TEACHING. Prerequisites: four courses in education and consent of the instructor. *Mr. O'Kelley and Mr. Tolbert.*

The primary purposes are: (1) to develop a philosophy of teacher education, (2) to discover problems in vocational teacher education in Georgia, (3) to determine relative emphasis that each teacher training agency should place upon solution of the several problems, and (4) to project plans for an apprentice training program.

921. LABORATORY IN APPLIED EDUCATION. Prerequisites: four courses in education and consent of major professor. *Staff.*

Designed to provide opportunities for advanced students to undertake functional studies of topics or problems in education significantly related to their professional tasks. For most students, it will involve supervised field work in the attempt to solve one or more practical school problems related to their normal duties.

DEPARTMENT OF AGRICULTURAL EXTENSION

(Livestock - Poultry Building, South Campus)

Head: Lancaster. Staff: Proctor and Agricultural Extension Staff.

The concentration offered by this Department is designed for men and women who wish to prepare for Agricultural Extension Service careers. It is open to men pursuing the B.S.A. curriculum in the College of Agriculture, and to women in the School of Home Economics.

Students who choose this concentration, both men and women, must complete all freshman and sophomore courses in their respective degree-course programs. Upon completion of these requirements, they are to prepare, in keeping with the requirements of their respective concentrations, a program for their junior and senior years, which must be approved by their major professor.

The concentration which follows this introductory statement sets forth the requirements for students in the College of Agriculture who wish to meet the qualifications for becoming a county agent. Only those students who are farm-reared and have had adequate, practical farm experience will be permitted to pursue this training program.

Two or more of the courses included in the major, one of which shall be Agricultural Extension 313, must, normally, be taken during the junior year. This will make it possible to provide for one summer's field experience, under supervision, to be completed prior to registering for Agricultural Extension 314, which is a course that may be taken only during the senior year. Field experience for a period of two or more months, under an approved county agent or some other Extension Service worker is desirable in this concentration. No college credit will be given for field experience. However, those taking this concentration, and who are selected for field training, will be paid a nominal salary during the period of training.

CONCENTRATION IN AGRICULTURAL EXTENSION

Science Option

MAJOR: Agricultural Extension 313, 314, Sociology 431,

Education 455 20 Hours

SCIENCE SELECTIONS: Bacteriology 350, Botany 380,

Economics 312, Plant Pathology 353, Entomology 374	25 Hours
FIRST MINOR: Agronomy 320 or 321, Agronomy 356	10 Hours
SECOND MINOR: May be in any one department in the University..	10 Hours
SPECIAL REQUIREMENT: Journalism 368, Agricultural Extension 401	10 Hours
ELECTIVES: To be selected with the objective of providing a well- rounded program for the individual. Must be approved by the major professor. May be chosen from the offerings of any Department in the University	20 Hours

CONCENTRATION IN AGRICULTURAL EXTENSION

Administration Option

MAJOR: Agricultural Extension 313, 314, Education 355, Soci- ology 431	20 Hours
AGRICULTURAL ECONOMICS: 304, 408, 467	15 Hours
BUSINESS ADMINISTRATION: 110, 370 and additional 10 hours ap- proved by faculty adviser	20 Hours
SCIENCE SELECTIONS: Bacteriology 350, Entomology 374	10 Hours
SPECIAL REQUIREMENTS: Mathematics 356 or Economics 312, Agricultural Economics 469 or Economics 330	10 Hours
ELECTIVES: To be selected with approval of faculty adviser	30 Hours

AGRICULTURAL EXTENSION

313. AGRICULTURAL EXTENSION ORGANIZATION AND PROCEDURES. Pre-
requisites: Two or more senior division courses. *Mr. Lancaster and the
Staff.*

Philosophy, procedures, and practices of Extension Service work in agriculture and home economics; organization, administration, and financing; relationships with cooperating and related organizations and agencies; qualifications, duties, and responsibilities of Extension Service workers.

314. AGRICULTURAL EXTENSION SERVICE PROGRAMS. Prerequisite: Agri-
cultural Extension 313. *Mr. Lancaster and the Staff.*

Scope and nature of Extension Service programs at national, state, and county levels; emphasis upon techniques, policies, and procedures for developing Extension Service programs as basis for work of county and home demonstration agents; activities involved in carrying out programs; evaluation of efforts and results obtained.

401. FARMER MOVEMENTS. Prerequisites: Agricultural Economics 104 and
110. *Mr. Proctor.*

History of agricultural organizations; study of selected rural agencies and organiza-
tions; and a study of the relationship between organizations of rural people and their
economic well being.

501*. PUBLIC RELATIONS IN EXTENSION WORK. 3 hours. *The Staff.*

The role of public relations in educational and governmental institutions: development of
a public relations program for Cooperative Extension Work: Enumerating and describing
the specific "Publics" to which the institution has responsibility.

502*. FAMILY PROBLEMS IN LIVING AND FINANCIAL MANAGEMENT. 2 hours.
The Staff.

A study of the economy in which the American family lives; incomes, expenditures, se-
curity savings; legal facts relating to financial planning; improvement of money manage-
ment in the home.

503*. EFFECTIVE USE OF INFORMATION MEDIA IN EXTENSION WORK. 2
hours. *The Staff.*

An analysis and application of the principles of human behavior that have a direct bearing

*Courses taught only in the Special Winter Session for Extension workers for both under-
graduate and graduate credit.

on Extension Instruction. Consideration is given to relevant contribution from the fields of educational, industrial, business and social psychology.

504*. PRINCIPLES AND PROCEDURES IN THE DEVELOPMENT OF 4-H CLUB WORK. 3 hours. *The Staff*.

The principles and procedures in planning and conducting 4-H Club programs and activities; selecting projects; selecting, training, and using volunteer leaders; working with and through organizations.

505*. COMMUNICATION IN EXTENSION WORK. 2 Hours. *The Staff*.

The use of communications media in Extension work with special emphasis on Radio and Television.

506*. ADMINISTRATION AND SUPERVISION IN EXTENSION. 3 hours. *The Staff*.

The principles of administration and supervision and their application to the Cooperative Extension Service.

GRADUATE COURSES

707. PROGRAM BUILDING IN EXTENSION. *Mr. Lancaster*.

A study of the basic problems, principles and procedures involved in Program Development in Cooperative Extension Work.

708. AGRICULTURAL EXTENSION ADMINISTRATION. *Mr. Lancaster*.

A seminar in the organization, administration, operation, and evaluation of the Cooperative Extension Service and its Educational programs.

DEPARTMENT OF AGRONOMY

(Conner Hall, South Campus)

Head: Rogers. Staff: Adams, Beaty, Brown, Douglas, Elkins, Giddens, Harris, Morris, McCreery, Pallas, Perkins, Smith, Welch.

The courses offered in the Agronomy Department are designed for students interested in general farm crop production, soil management practices, the various fields of specialization in agronomic work, and electives for majors in other fields of specialization.

Students majoring in this department are prepared for general farming, for farm managers, and for employment in various fields of agriculture, such as the U. S. Department of Agriculture, experiment station workers, college teachers, extension work in crops and soils, seed industry, cotton specialization, soil conservation, soil survey, and the fertilizer industry. Provision is made for those who continue their training as graduate students in either crops or soils.

Students majoring in the Department of Agronomy should contact the Head of the Department and be assigned to an adviser. The student will plan his program of study in consultation with his adviser. All courses and electives must be approved by the adviser. It is usually possible for students to obtain work, on an hourly basis, with the research staff in the department.

Four concentrations are offered with electives in related fields.

I. CONCENTRATION IN GENERAL AGRONOMY

Science Option

This concentration is designed for students who plan to farm or to enter the fields of farm management, farm operation, technical planning, or

*Courses taught only in the Special Winter Session for Extension workers for both undergraduate and graduate credit.

agronomic work in soil-conserving programs. This concentration is not designed for those who plan to do graduate work.

MAJOR: Agronomy 320, 321, 356, 458	20 Hours
SCIENCE SELECTIONS: Bacteriology 350, Botany 375, 380, Plant Pathology 353, 358	25 Hours
FIRST MINOR: Any department in the University (Must be approved by the student's adviser)	10 Hours
SECOND MINOR: Agronomy 332, 353	10 Hours
SPECIAL REQUIREMENTS: Agricultural Economics 301, 364, Botany 305, 323, Plant Pathology 356, Geology 125, Sociology 451	20 Hours
GENERAL ELECTIVES	10 Hours

II. CONCENTRATION IN GENERAL AGRONOMY

Administration Option

This course of study is planned to give a student training in agriculture and in the field of business administration. A student graduating with a major in this concentration is prepared to enter various types of agricultural businesses. These include fertilizer and seed administration and sales as well as other forms of private businesses serving the farmer or processing farm products.

MAJOR: Agronomy 324, 356, and 10 hours from Agronomy 320, 321, 332, 458	20 Hours
SCIENCE SELECTIONS: 10 hours from Plant Pathology 353, 358, Entomology 374	10 Hours
FIRST MINOR: Business Administration 110, 370, plus 10 additional hours	20 Hours
SECOND MINOR: Agricultural Economics 304, 408, 467,	15 Hours
SPECIAL REQUIREMENTS: Mathematics 356 or Economics 312 and Economics 330 or Agriculture Economics 469	10 Hours
ELECTIVES	30 Hours

III. CONCENTRATION IN AGRONOMIC SCIENCE

Science Option

This concentration is designed primarily for students who plan to enter graduate school to continue their training in either plant science or soil science.

MAJOR: Twenty selected hours in Agronomy	20 Hours
SCIENCE SELECTIONS: Twenty-five hours to be selected from: Plant Pathology 353, Mathematics 101, 210, 254, 255, Botany 305, 323, 375, Geology 125, 321, 323, Chemistry 223, 380, Physics 228, 229	25 Hours
FIRST MINOR: Plant Pathology 358, Entomology 374	10 Hours
SECOND MINOR: Bacteriology 350, Botany 380	10 Hours
SPECIAL REQUIREMENTS AND ELECTIVES	40 Hours

IV. CONCENTRATION IN SOIL CONSERVATION

Science Option

This concentration is designed especially for students interested in soil conservation, soil improvement, farm program planning, and soil utiliza-

tion, and is not designed for those who plan to do graduate work. This concentration is given in cooperation with the Department of Agricultural Engineering.

MAJOR: Agronomy 353, 356, 458, 460	20 Hours
SCIENCE SELECTIONS: Botany 305, 375, 380, Mathematics 101, Geology 125	25 Hours
FIRST MINOR: Agronomy 320, 321	10 Hours
SECOND MINOR: Agricultural Engineering 111, and 5 additional hours in Agricultural Engineering	10 Hours
SPECIAL REQUIREMENT: Agricultural Economics 364, Agronomy 425, and 324 or 332, Plant Pathology 358	20 Hours
GENERAL ELECTIVES	20 Hours

AGRONOMY

101. FIELD CROP PRODUCTION. 3 hours. *Mr. Douglas* and *Mr. Rogers*.

A general survey of the principles involved in the economical production of the more commonly grown field and forage crops. Laboratory exercises will include plant and seed identification in the field and laboratory.

210. PRINCIPLES OF SOILS. Prerequisites: Chemistry 121-122. *Mr. Morris*, *Mr. McCreery*, *Mr. Giddens*, and *Mr. Perkins*.

Soil formation; physical, chemical, and biological properties of soils; commercial fertilizers, lime and organic matter; and soil management practices, with particular reference to cultivated soils. (Not open to Forestry students.)

300. COMMERCIAL COTTON CLASSING. (Good eyesight and color perception necessary). *The Staff*.

Cotton grades and staples according to Universal Standards for American Upland Cotton. Practices consist of grading and stapling several thousand samples of cotton.

320. SOUTHERN FIELD CROPS. Prerequisites: Agronomy 101, 210, and Botany 122. *Mr. Douglas*.

Production, harvesting and utilization of the major cash crops of Georgia are discussed. Laboratory exercises deal with botanical and morphological characteristics of the crops and the fundamentals of grading and classing. Field trips to the College Experiment Station are made for the purpose of observing current research.

321. FORAGE AND PASTURE CROPS. Prerequisites: Agronomy 101, 210, and Botany 122. *Mr. Brown* and *Mr. Beaty*.

Study of the adaptation, requirements, and culture of the important grasses and legumes and their use as pasture, hay, silage, and soilage.

324. WEEDS AND SEEDS. Prerequisites: Agronomy 101, 210, and Botany 122. *Mr. Brown*.

Beneficial and harmful effects of weeds. Principles of weed control, including the use of chemicals and cultural practices. Seed certification, analysis, and germination. Identification of weeds in seed and plant form.

332. CEREAL PRODUCTION. Prerequisites: Agronomy 101, 210, and Botany 122. *Mr. Brown*.

Distribution, classification, production and uses of corn, small grains, and grain sorghum. Laboratory exercises include identification of varieties and grain grading by U. S. Standards.

356. FERTILIZERS. Prerequisite: Agronomy 210. *Mr. Morris*.

Sources, manufacture, and uses of commercial fertilizers, and the principles involved in the application of fertilizers to crops. Plant nutrient deficiency symptoms and means of correcting these deficiencies.

423. (STATISTICS) PRINCIPLES OF EXPERIMENTAL METHODS. Prerequisites: Agronomy 321 and 356, or equivalent. *Mr. Morris*.

Principles and practices in plant and animal research with special reference to the design and mechanical procedure with experimental plots. The applications of statistical methods to laboratory and field results are emphasized.

425. PASTURE DEVELOPMENT AND MANAGEMENT. Prerequisites: Agronomy 321 and 356, or equivalent. *Mr. Beaty*.

Fundamental principles of growth and production of pasture plants and mixtures;

types of pastures and pasture vegetation; principles of establishment and management for economical production and soil conservation.

427 a-b-c. AGRONOMY SEMINAR. 1 hour each. *The Staff*.

Topics relating to crops and soils to be discussed, including literature review and studies pertaining to local experimental work. Required of senior and graduate students. Students and faculty to participate.

454. SOIL MORPHOLOGY AND CLASSIFICATION. Prerequisites: Chemistry 380 and one senior division course in Agronomy or equivalent. *Mr. Perkins*.

Morphological characteristics of soils, factors influencing these characteristics and classification of soils of the U. S. Several full-day field trips will be required at the student's expense. (Total cost about \$25).

458. LAND USE PROBLEMS. Prerequisites: Agronomy 321 and 356, or equivalent. *Mr. Giddens*.

Soil management practices pertaining to efficient land use, and the application of these practices to farm planning and soil conservation.

459. SOIL FERTILITY. Prerequisites: Agronomy 356 and 458, or equivalent. *Mr. Morris*.

Soil conditions affecting availability of plant nutrients, methods of determining soil fertility and deficiency of plant nutrients in soils, and interpretation of chemical and biological measurements as related to fertility maintenance and good soil management.

460. SOIL PHYSICS. Prerequisites: Agronomy 353 and Chemistry 380, or equivalent. *Mr. McCreery*.

Physical properties, moisture relations, and methods of physical analysis of soils.

461. (BACTERIOLOGY) SOIL MICROBIOLOGY. Prerequisites: Agronomy 458 and Bacteriology 350 or equivalent. *Mr. Giddens*.

Study of characteristics of microorganisms inhabiting the soil. Activities of soil microorganisms such as nitrogen fixation, carbon cycle, and other factors affecting soil fertility are especially stressed.

GRADUATE COURSES

803. FACTORS AFFECTING GROWTH AND REPRODUCTION IN CROPS. Prerequisites: Agronomy 321, 356, Botany 380 or equivalents. *Mr. Rogers*. (Not offered 1959-60).

Analysis of factors affecting growth, differentiation, and reproduction of plants; the influence on competition, succession and plant communities; practical problems are discussed in light of current research.

810. ADVANCED AGRONOMY SEMINAR. One hour per quarter for one to six quarters. Prerequisite: Graduate standing. *The Staff*.

Topics relating to research in crops and soils, including literature review and results pertaining to local experimental work. Required of all graduate students.

812. (PLANT BREEDING) SPECIALIZED PLANT BREEDING. Prerequisites: Plant Pathology 353, 402, and one senior division course in crop production. *Mr. Brown, Mr. Douglas, Mr. Fleming, and Mr. Rogers*.

Conducted cooperatively by the Department of Agronomy and Department of Plant Pathology and Plant Breeding. A combination of lectures and laboratory periods in the greenhouse and experimental field with emphasis on fundamental practices and techniques used in the development of farm-crop varieties and hybrids. Opportunity for student to receive personal supervision.

821-822. SPECIAL PROBLEMS IN SOIL SCIENCE. Five hours each. Prerequisite: B.S. degree with major in soils. *The Staff*.

The planning, completion and reporting of short-time problems in one of the soil sciences, other than thesis, conducted in the library, laboratory, greenhouse, or field.

823-824. SPECIAL PROBLEMS IN PLANT SCIENCE. Five hours each. Prerequisite: B.S. degree with major in crops. *The Staff*.

The planning, completion, and reporting of short-time problems in one of the crop sciences, other than thesis, conducted in the library, laboratory, greenhouse or field.

825-826. SPECIAL PROBLEMS IN AGRONOMY. Five hours each course. Prerequisites: At least one course in Agronomy with catalogue number 800 or above. *The Staff*.

The planning and completion of short-time agronomic problems, other than thesis investigations, conducted in the library, field, greenhouse, or laboratory.

827. (STATISTICS) EXPERIMENTAL DESIGN. Prerequisite: Agronomy 423 or equivalent. *Mr. Morris*.

A continuation of Agronomy 423, including the design and analysis of complex experiments with a large number of treatments. This course is designed to meet the needs of students in plant sciences.

852. **ADVANCED SOIL FERTILITY.** Prerequisites: Agronomy 459 or equivalent. *Mr. Morris.*

Physical, chemical, and bacteriological aspects of soil fertility as related to plant growth.

853. **METHODOLOGY IN SOIL CHEMISTRY.** Prerequisites: Agronomy 459 and Chemistry 380, or equivalent. *Mr. McCreery.*

Special treatment of methods used in soil and plant analyses. Emphasis is placed on chemical laboratory methods and equipment used in soil investigations; however, physical and biological methods are also presented. Interpretation of experimental data is stressed.

854. **SOIL MORPHOLOGY AND GENESIS.** Prerequisites: Agronomy 353 and Chemistry 380, or equivalent. *Mr. Perkins.*

Morphological features of soils, factors influencing these features, and concepts and theories of origin and development of soils with emphasis on clay mineralogy.

860. **SOIL PHYSICAL FACTORS AND PLANT GROWTH.** Prerequisites: Botany 380, and Agronomy 460. *Mr. Williams.*

Consideration will be given to certain fundamental relations resulting when plants are subjected to a varying physical environment. Special emphasis will be placed upon the effects of soil moisture as related to plant growth, nutrient uptake and other physiological processes.

930. **THESIS RESEARCH IN AGRONOMY.** 5 to 50 hours.

Credits in this course must be in addition to the 40 hours required for the M.S. degree. Prerequisite requirements depend upon research problem and consent of major professor. Available by arrangement any quarter to any graduate student majoring in agronomy who is a candidate for the Master of Science degree.

DEPARTMENT OF ANIMAL HUSBANDRY

(Livestock - Poultry Building, South Campus)

Head: Long. Staff: Carmon, Cullison, Grooms, Lassiter, Sewell, Warren

The courses offered by the Department of Animal Husbandry are designed to give students basic training in the production of beef cattle, sheep, and swine. While most of the courses offered deal with the more practical phases of selection, breeding, feeding, and/or management, several courses of a technical nature are offered for those students who desire to enter some specialized type of work or who plan to follow a program of graduate study.

The courses of the Department are especially planned for students who expect to become livestock farmers, farm managers, herdsmen, animal husbandry specialists, county agents, vocational agricultural teachers, college teachers, or experiment station workers. They are also suitable for students who intend to enter positions with breed associations, feed manufacturers, packing houses, livestock commission firms, livestock equipment and supply companies, or livestock journals.

CONCENTRATION IN ANIMAL HUSBANDRY

Science Option

MAJOR: Animal Husbandry 360, 361, 372, 373	20 Hours
SCIENCE SELECTIONS: Animal Husbandry 358, Bacteriology 350, Plant Pathology 358, Zoology 390, and one other	25 Hours
FIRST MINOR: Agronomy 321 and 356	10 Hours
SECOND MINOR: May be selected by student in any department of the University, subject to the approval of the Head of	

the Department	10 Hours
SPECIAL REQUIREMENTS: Animal Husbandry 350, 366, Food Technology 365 or 368, Journalism 350 and Veterinary Hygiene 200	21 Hours
GENERAL ELECTIVES: Subject to the approval of the Head of the Department	19 Hours

CONCENTRATION IN ANIMAL HUSBANDRY

Administration Option

MAJOR: Animal Husbandry 360, 361, 372, 373	20 Hours
AGRICULTURAL ECONOMICS: 304, 408, 467	15 Hours
BUSINESS ADMINISTRATION: 110, 370; an additional 10 hours approved by student's faculty adviser	20 Hours
SCIENCE SELECTIONS: Animal Husbandry 358; Plant Pathology 358	10 Hours
SPECIAL REQUIREMENTS: Bacteriology 350; Food Technology 365 or 368; Animal Husbandry 350; Economics 312, 330	23 Hours
GENERAL ELECTIVES: Subject to the approval of the student's faculty adviser	17 Hours

ANIMAL HUSBANDRY

101. INTRODUCTORY ANIMAL HUSBANDRY. 3 hours. *Mr. Grooms.*

A study of basic facts, principles, and terminology pertaining to beef cattle, sheep, swine, horses and mules.

350. TYPES, BREEDS, CLASSES, AND GRADES OF LIVESTOCK. 3 hours. Prerequisite: Animal Husbandry 101. *Mr. Grooms.*

A study of the characteristics of the different types, breeds, classes, and grades of livestock.

356.1, 356.3, 356.4. 1 hour each. FITTING AND SHOWING BEEF CATTLE, SHEEP, AND SWINE, (respectively). Prerequisite: Animal Husbandry 101. *Staff.*

A laboratory course designed to train students in the proper fitting and showing of the various breeds and classes of beef cattle, sheep, and swine for show or sale.

358. FUNDAMENTALS OF ANIMAL NUTRITION. Prerequisites: Zoology 226, Chemistry 260. *Mr. Fuller, Mr. Lassiter, and Mr. Miller.*

A study of the fundamental principles of animal nutrition.

360. BEEF CATTLE PRODUCTION. Prerequisite: Animal Husbandry 373. *Mr. Long.*

A study of the breeding, feeding, and management of beef cattle.

361. SWINE PRODUCTION. Prerequisite: Animal Husbandry 373. *Mr. Sewell.*

A study of the breeding, feeding, and management of swine.

364. SHEEP PRODUCTION. Prerequisite: Animal Husbandry 373. *Mr. Warren.*

A study of the breeding, feeding, and management of sheep.

366. LIVESTOCK JUDGING AND SELECTION. 3 hours. Prerequisite: Animal Husbandry 350 or permission of the instructor. *Mr. Grooms.*

A course which deals with the selection of livestock for the breeding herd and for slaughter. From the students in this course will be chosen the team to represent the University in the Annual Spring Intercollegiate Livestock Judging Contests.

371. LIVESTOCK PRODUCTION. *Mr. Grooms.*

A study of the fundamental principles and practices involved in the profitable production of various classes of farm animals. (Not for Animal Husbandry majors. Students taking this course will not receive credit in Animal Husbandry 360, 361, and 364).

372. ANIMAL BREEDING. Prerequisites: Animal Husbandry 101 and Plant Pathology 358. *Mr. Warren.*

A study of the basic principles of genetics and reproduction as related to the breeding and improvement of farm animals.

373. FEEDS AND FEEDING. Prerequisites: Animal Husbandry 101 and Chemistry 260. *Mr. Cullison.*

A study of the composition and properties of the important feed stuffs and their use in the feeding of farm livestock.

376. ADVANCED LIVESTOCK JUDGING AND SELECTION. 3 hours. Prerequisite: Animal Husbandry 366 or permission of instructor. *Mr. Grooms.*

A continuation of Animal Husbandry 366. From the students in this course will be chosen the team to represent the University in the Annual Fall Intercollegiate Livestock Judging Contests.

402. ADVANCED ANIMAL NUTRITION. Prerequisites: Animal Husbandry 358, 360, 361, or 364, Zoology 390 or equivalent. *Mr. Sewell.*

A study of the chemical composition and the physical and chemical properties of feeds and feed nutrients; the digestion, absorption and metabolism of the nutrients; factors affecting nutrient utilization; the functions of the different nutrients; the nutrient requirements of farm animals; the effects of nutrient deficiencies and how to correct and prevent them.

404. THE GENETIC IMPROVEMENT OF FARM ANIMALS. Prerequisites: Animal Husbandry 372 or equivalent and one other senior division course in Animal Husbandry or closely related department. *Mr. Warren.*

The development of practical and genetically sound programs involving the study and application of genetic principles underlying selection, systems of mating and performance testing.

405. PHYSIOLOGY OF REPRODUCTION IN FARM ANIMALS. Prerequisites: Animal Husbandry 372 or equivalent, Zoology 390 and at least one other senior division course in Animal Husbandry or closely related field. *Mr. Warren.*

A study of the physiology of reproduction of farm animals, including the advanced aspects of the technological control of the reproductive processes.

GRADUATE COURSES

801-802. SPECIAL PROBLEMS IN ANIMAL HUSBANDRY. 5 hours each. Prerequisites: Animal Husbandry 402 or 404 or 405 and permission of instructor. *Mr. Carmon, Mr. Cullison, Mr. Lassiter, Mr. Long, Mr. Sewell, and Mr. Warren.*

Library and laboratory problems dealing with different phases of livestock production.

805. EXPERIMENTAL METHODS IN ANIMAL NUTRITION. Prerequisite: Animal Husbandry 402 or equivalent. *Mr. Lassiter.*

A study of the experimental methods used in animal nutrition research; the nature and significance of chemical determinations, feeding trials, digestion trials, and metabolism studies.

806. MINERALS AND VITAMINS IN THE NUTRITION OF FARM ANIMALS. Prerequisites: Animal Husbandry 402 and Zoology 390. *Mr. Sewell.*

A detailed study of the roles of individual minerals and vitamins in the nutrition of cattle, sheep and swine with particular emphasis on reports in current literature.

810 a-b-c. SEMINAR IN ANIMAL HUSBANDRY. 1 hour each. Prerequisites: Animal Husbandry 360, 361 and 372 or equivalent. *Mr. Sewell.*

Weekly meetings devoted to discussions of current problems and research in the field of Animal Husbandry.

826. (STATISTICS) STATISTICAL METHODS IN ANIMAL SCIENCE. Prerequisites: Agronomy 423-623 or equivalent. *Mr. Carmon.*

A study of special experimental designs and statistical procedures particularly applicable to animal research.

828. POPULATION GENETICS. Prerequisites: Animal Husbandry 827 or equivalent. *Mr. Carmon.*

Statistical analysis of the genetic structure of animal populations and a study of the genetic forces responsible for the changes in these populations.

930. THESIS. 5 to 20 hours. Prerequisites: Two or more graduate

courses in Animal Husbandry. Open only to Animal Husbandry majors.
The Staff.

The carrying out of laboratory and library research and the development of a thesis bearing on the subject under investigation.

DEPARTMENT OF BOTANY

(Biological Science Building, South Campus)

Head: Westfall. Staff: Beck, Blyth, Brown, Carlton, Duncan, James, Michel, Plummer.

A major in Botany is often highly desirable for students in the College of Agriculture who are interested in any of the plant sciences. A thorough knowledge of plant structures, processes, environmental requirements, and the principles of identification and classification to be derived from such a course of study is basic to Agronomy, Horticulture, Plant Pathology, and Plant Breeding, and is generally essential as a foundation for effective graduate work in these fields.

Students who specialize in Botany have the academic requirements for several positions with the United States Department of Agriculture and other Federal agencies. When taken adjunctively with another major in the plant sciences, a major in Botany should prove most valuable as preparation for numerous State and Federal agencies.

MAJOR: Botany 305, 323, 375, 380	20 Hours
SCIENCE SELECTIONS FROM: Bacteriology 350, Entomology 374, Chemistry 260, Plant Pathology 353, Plant Pathology 358 or Biology 370	25 Hours
FIRST MINOR: To be approved by Head of Department	10 Hours
SECOND MINOR: Must be in the college of Agriculture	10 Hours
ELECTIVES	40 Hours

BOTANY*

110. PLANT BIOLOGY AND MAN. No credit will be allowed for Botany 110 if credit is shown for Botany 121. *The Staff.*

Basic studies of life, employing a variety of plant materials and emphasizing the relationship of structures and processes to the welfare of man.

111. PLANT BIOLOGY AND MAN (Continued). No credit will be allowed for Botany 111 if credit is shown for Botany 122. *The Staff.*

A study of the reproduction, heredity, evolution, and environmental relationships of representative groups of plants, emphasizing economic and cultural applications.

121. ELEMENTARY BOTANY. Not open to students who have credit for Botany 110. Three one-hour lecture periods and two two-hour laboratory periods. *Mr. Carlton and the Staff.*

A study of (a) the structure of leaves, stems, and roots; (b) growth and nutritive processes of plants; and (c) the relations of plants to their environment.

122. ELEMENTARY BOTANY (Continued). Not open to students who have credit for Botany 111. Three one-hour lecture periods and two two-hour laboratory periods. *Mr. Carlton and the Staff.*

A study of reproduction, variation, heredity, and evolution of seed plants, with studies of representatives of the other major plant groups and their importance.

305. IDENTIFICATION OF FLOWERING PLANTS. Five double laboratory periods, outdoors on field trips when possible. Attendance on scheduled all-day or longer trips to mountains, coastal islands, etc. may be substituted for an

*Students may be held responsible for breakage in laboratory courses.

appropriate number of regular sessions. Prerequisites: None, except that the course is not open to freshmen without the consent of the instructor. *Mr. Duncan and Mr. James.*

Studies in the identification of plants with emphasis on wild flowers.

306. IDENTIFICATION OF TREES AND SHRUBS. Three two-hour periods each week plus three full-day trips as scheduled. Given Winter quarter. Prerequisites: none except freshmen should have permission of instructor. *Mr. James.*

Studies in the identification of trees and shrubs, with emphasis on identification under winter conditions.

323. ELEMENTARY PLANT ANATOMY. Five two-hour laboratory periods. Prerequisites: Botany 110-111 or Botany 121-122. *Mr. Carlton.*

The origin and development of the organs and tissue systems of vascular plants, and a comparative study of the structure of roots, stems, leaves, flowers, and fruits.

358. METHODS IN PLANT HISTOLOGY. Five double laboratory periods. Prerequisites: Botany 110-111 or Botany 121-122. *Mr. Carlton.*

Principles and methods of killing, fixing, embedding, sectioning, staining, and mounting plant materials for microscopic study.

375. PLANT ECOLOGY. Three one-hour lecture discussion periods, two double periods of field trips or laboratory per week, and/or occasional week-end field trips. Prerequisites: Botany 121-122 or Botany 110-111. *Mr. Plummer.*

Plant geography, community analysis, symbiosis, species populations, limiting factors, cycles, rhythms, and applied implications. Fall quarter: synecology; Spring quarter: autecology; Summer quarter: field trips.

380. PLANT PHYSIOLOGY. Three lectures and two double laboratory periods. Prerequisites: Botany 121-122 or Botany 110-111. *Mr. Beck.*

A survey of physiological processes occurring in economic plants and the conditions which affect these processes.

471. TAXONOMY OF SEED PLANTS. Five double laboratory periods. Prerequisites: Botany 305 or equivalent and any other senior division course in botany or approved course in plant pathology, forestry, or geography.

A study of identification and classification of seed plants with emphasis on the flora of the southeastern states.

473. IDENTIFICATION OF GRASSES. Five double laboratory periods. Prerequisites: Botany 110-111 or Botany 121-122 and two senior division courses in botany or approved courses in other plant sciences. *Mr. Duncan.*

Studies in the identification and classification of grasses with emphasis on structure and ecology. Numerous economically important species are included.

475. BRYOPHYTES. Three one-hour lecture and two double laboratory periods. Fall Quarter of odd numbered years. Prerequisites: Any two senior division courses in botany or plant pathology.

Studies in the morphology and taxonomy of Bryophytes. The laboratory will be devoted partly to study of Bryophytes in the field.

476. VEGETATION OF NORTH AMERICA. Six hours library-laboratory, three hours seminar per week and a week-end field trip. Spring Quarter. Prerequisites: Fifteen hours credit in Botany, Geology and Geography, or Agriculture. *Mr. Plummer.*

Theories of plant geography, climax formations, and the causes of contemporary vegetation. Includes floristics, indicator plants and problems in land utilization. Emphasizes eastern North America.

477. AUTECOLOGY. Six hours library-laboratory, three hours seminar per week and week-end field trips. Spring Quarter, even numbered years. Prerequisites: Botany 375 and 380 or consent of the instructor. *Mr. Plummer.*

Emphasizes environmental factors connected with the welfare of plants and relates them to structure, function, and evolution of species. Include aspects of biological factors and radiation ecology.

478. PTERIDOPHYTES. Four one-hour lecture, discussion, or demonstration periods and one two-hour laboratory period. Fall Quarter of even numbered years. Prerequisites: Any two senior division courses in Botany or Plant Pathology.

Studies in the identification, classification, and morphology of Pteridophytes.

482. NUTRITION OF GREEN PLANTS. Two lectures and three double laboratory periods. Prerequisites: Botany 323 and 380. *The Staff*.

A study of the nutrition of the higher plants, including major and minor elements and deficiency symptoms.

520. FIELD AND LABORATORY BOTANY. Two lectures and three double laboratory periods and special field trips. Prerequisites: Botany 121-122 or equivalent and two senior division courses in botany or education.

A course in field botany designed especially for teachers. Particular emphasis is placed upon the identification of local flowering plants and ferns, and upon the selection and use of materials for correlating the study of plants with other subjects.

522. ADVANCED FIELD AND LABORATORY BOTANY. Two lectures and three double laboratory periods and special field trips. Prerequisite: Botany 520.

A second course primarily for teachers, emphasizing plant identification, environmental relationships, and plant distribution.

GRADUATE COURSES

802 and 804. PROBLEMS IN BOTANY. 5 hours for each course. Under this heading work may be pursued under the direction of staff members in plant anatomy, plant ecology, plant morphology, plant physiology, plant taxonomy or mycology. Prerequisites: Two senior division courses in botany or approved courses in agriculture, geography, or forestry.

831. MORPHOLOGY OF SEED PLANTS. Five double laboratory periods. Prerequisites: Botany 323 and one other senior division course in botany or plant pathology.

Critical studies of representative seed plants, considering their development and relationship.

840. CYTOLOGY. Two lecture and three double laboratory periods. Prerequisites: Zoology 401, or equivalent, and one other approved senior division course. Credited toward a major in botany or zoology. *Mr. Westfall*.

The study of cells, their cytoplasm and nuclei, metabolism, growth, differentiation and reproduction.

842. CYTOGENETICS. Two lecture and three double laboratory periods. Prerequisite: Botany 840. Credited toward a major in botany or zoology. *Mr. Westfall*.

A course dealing with the correlation of genetic data and cytological structures and processes, emphasizing the mechanisms of normal chromosome distribution, chromosomal aberrations, and their relationship to the development of species.

849. INTRODUCTION TO RESEARCH. Two lecture-discussion and three library or laboratory periods per week. Prerequisites: One 400-600 course in the field of chosen research. *Graduate Staff*.

A study of the literature of botany, research procedures, and discussions which can be found only in the original articles.

860. AQUATIC PLANTS. Three one-hour lectures and two double laboratory periods. Prerequisites: Botany 110-111 or Botany 121-122 and any two courses numbered above 300 in botany, entomology, or zoology which provide taxonomic training.

A study of the taxonomy, distribution, and ecology of aquatic plants, with emphasis upon fresh-water forms and habitats. Laboratory will be devoted mostly to study of aquatic plants in the field.

872. ADVANCED TAXONOMY OF SEED PLANTS. Two lectures and three double laboratory periods. Prerequisites: Botany 471 or equivalent.

A study of the taxonomy of special groups, concepts and systems of classification and problems of nomenclature.

883. ADVANCED PLANT PHYSIOLOGY. Two hours lecture and three double laboratory periods per week. Prerequisites: Botany 380 and any other senior division courses in botany, chemistry, or plant pathology. *Mr. Beck* and *Mr. Michel*.

An evaluation of concepts in plant physiology with special attention to the methods employed in arriving at these concepts.

884. PLANT GROWTH AND DEVELOPMENT. Two hours lecture and three

double laboratory periods per week. Prerequisites: Botany 380 and Organic Chemistry. *Mr. Michel.*

Study of factors influencing seed germination, plant growth, and floral development, with special emphasis on the compounds affecting these processes.

DAIRY DEPARTMENT

(Dairy Building and Livestock - Poultry Building, South Campus)

Head: Henderson. Staff: Bennett, Cameron, Clifton, Fosgate, Miller, Roberts, Sheuring.

The dairy industry in Georgia has been steadily increasing in importance for a number of years. With this growth there has also been an increase in the demand for trained personnel in the various phases of the dairy industry.

The Dairy Building provides adequate facilities for teaching all phases of manufacturing, processing, and distributing dairy products. One wing of the building houses a dairy manufacturing laboratory which is used for training students in the operation of milk processing equipment, the processing of market milk, and the manufacturing of ice cream, butter, cheese, and condensed milk.

Teaching and research laboratories for dairy production are in the Livestock-Poultry Building. These facilities are excellent, and have stimulated interest in graduate work. The dairy farm is located adjacent to the campus and provides a practical program of feed production and herd management for the benefit of students and visitors. The herd of purebred animals of two of the major dairy breeds is used for instruction of resident students, research in dairy production and serves as a demonstration to visitors.

SPECIAL STUDENTS. Frequently, requests are received relative to short periods of training on a non-degree basis. The laboratories of the department are available at all times for informal training under the supervision of the person in charge of the laboratory.

It should also be pointed out that any resident of the state may, under certain circumstances, register in the University as a special student and take any courses regularly taught. The Dairy Department usually can arrange satisfactory programs of study to fit the needs of the individual. These will range from three months (one quarter) to two years (six quarters).

SCHOLARSHIPS. Several scholarships are available to students desiring to major in one of the programs of the dairy department. For information as to availability of scholarships, write the Head of the Dairy Department, University of Georgia, Athens.

CONCENTRATIONS. For students regularly enrolled in the University, the Dairy Department offers a variety of concentrations. Within the College of Agriculture a concentration is offered in dairy production under either the Administration or the Science option. Similarly a concentration is offered in dairy manufacturing under either of these options. In addition a concentration is offered in sanitary science. A detailed explanation of this program is included under the description of that concentration. A special concentration in dairy plant management is offered through the School of Business Administration. The programs outlined here may be altered to fit the needs of individual students.

CONCENTRATION IN DAIRY PRODUCTION

Science Option

MAJOR: Dairy 379, 390, 392, 394	20 Hours
SCIENCE SELECTIONS: Bacteriology 350, Plant Pathology 358, Entomology 374, Veterinary Medicine 310, Sociology 431.....	25 Hours
FIRST MINOR: Animal Husbandry 358 and 373	10 Hours
SECOND MINOR: Agronomy 321 and 356	10 Hours
GENERAL ELECTIVES: To be approved by the Head of the De- partment	40 Hours

CONCENTRATION IN DAIRY PRODUCTION

Administration Option

MAJOR: Dairy 379, 390, 392, 394	20 Hours
AGRICULTURAL ECONOMICS: 304, 408, 467	15 Hours
BUSINESS ADMINISTRATION: 110, 370 and 10 additional hours in Business Administration	20 Hours
SCIENCE SELECTIONS: Bacteriology 350, Plant Pathology 358	10 Hours
SPECIAL REQUIREMENTS: Economics 312, 330	10 Hours
ELECTIVES: To be selected with Departmental approval	30 Hours

CONCENTRATION IN DAIRY MANUFACTURING

Science Option

MAJOR: Dairy 350, 394, 395, 399	20 Hours
SCIENCE SELECTIONS: Bacteriology 350, Plant Pathology 358, En- tomology 374, Sociology 431 and Economics 312 or Mathe- matics 356	25 Hours
FIRST MINOR: Dairy 389, 396	10 Hours
SECOND MINOR: Food Techology 300, 364 or Bacteriology 395, 409	10 Hours
GENERAL ELECTIVES: To be approved by the Head of the De- partment	40 Hours

CONCENTRATION IN DAIRY MANUFACTURING

Administration Option

MAJOR: Dairy 350, 394, 395, 399	20 Hours
AGRICULTURAL ECONOMICS: 304, 408, 467	15 Hours
BUSINESS ADMINISTRATION: 110, 370 and 10 additional hours in Business Administration	20 Hours
SCIENCE SELECTIONS: Bacteriology 350, Entomology 374	10 Hours
SPECIAL REQUIREMENTS: Economics 312, 330	10 Hours
ELECTIVES	30 Hours

CONCENTRATION IN SANITARY SCIENCE

Science Option

Trained personnel in the fields of milk, food, environmental and general sanitation are needed for employment by governmental public health and regulatory agencies. The need for more personnel as trained sanitarians in the above fields will become greater as our population increases. Many states, including Georgia, have laws which require all registered sanitarians to be college graduates with a minimum of 40 quarter hours in the natural sciences. Sanitarians have been chosen primarily from dairy manufacturing graduates. The concentration in Sanitary Science will provide an excellent training for students to secure broad and applied training for employment as milk, food, environmental and general sanitarians by county, state and federal regulatory agencies.

MAJOR: Dairy 350, 394, 395, 396	20 Hours
SCIENCE SELECTIONS: Bacteriology 350, Chemistry 451, Entomology 373, 376, Mathematics 356 or Economics 312	25 Hours
FIRST MINOR: Dairy 389, Food Technology 395	10 Hours
SECOND MINOR: Bacteriology 410, 422	10 Hours
SPECIAL REQUIREMENTS: Agricultural Engineering 104, 105, Political Science 441, 442, 492	19 Hours
ELECTIVES: To be selected in consultation with the department head or faculty adviser	21 Hours

CONCENTRATION IN DAIRY PLANT MANAGEMENT

(Offered in the School of Business Administration)

For those students who wish to combine a technical knowledge of the dairy manufacturing industry with business administration training, the following special curriculum leading to the degree of Bachelor of Business Administration has been provided.

FRESHMAN AND SOPHOMORE YEARS

	Hours		Hours
English 101, 102	10	English 121, 122	10
Mathematics 100	5	Elective	5
Chemistry 121-122	10	Bacteriology 350	5
Economics 105, 106	10	Political Science 101	5
History 111, 112	10	Business Administration 108	3
Business Administration 101, 102, 103	3	Business Administration 110, 111	10
Military 1 or Air Science 5	6	Physical Science 101	5
Physical Education 1 (for men)	0	Economics 133	5
or		Military 2 or Air Science 6	6
Physical Education 1		Physical Education 2 (for men)	0
(for women)	5	or	
	—	Physical Education 2	
		(for women)	5
Total	54	Total	54

JUNIOR

	Hours
Economics 312, 326, 360, 386	20
Business Administration 351, 370	10
Dairy 350, 389, 394	15
Total	45

SENIOR

	Hours
Business Administration 395	1
Business Administration 560, 564, 578	15
Dairy 395, 396, 399	15
Electives	17
Total	48

DAIRY

103. ELEMENTS OF DAIRYING. 3 hours. *Mr. Henderson and the Staff.*

An elementary course in dairying, dealing with the following general subjects; relation of dairying to agriculture; application of the Babcock test to farm practices; care and handling of milk and cream on the farm; milk secretion; feeding, breeding, judging, and selection of dairy cattle.

301-302-303. DAIRY SEMINAR. 1 hour each. *The Staff.*

Topical discussion of current problems and scientific work in dairying.

350. DAIRY CHEMISTRY. Prerequisite: Chemistry 121-122. *Mr. Sheuring.*

A basic study of the chemical and physical properties of milk; analysis of milk and milk products according to standard methods; functions and operations of a dairy control laboratory.

356.5. DAIRY CATTLE FITTING AND SHOWING. 1 hour. *Mr. Clifton.*

Credit will be given for preparation of animal and showing the animal in the Little International Livestock Show.

358. FUNDAMENTALS OF ANIMAL NUTRITION. Prerequisites: Zoology 226, Chemistry 260. *Mr. Fuller, Mr. Lassiter.*

A study of the fundamental principles of animal nutrition.

379. DAIRY HERD OPERATIONS. Prerequisites: Dairy 103, Animal Husbandry 373. *Mr. Clifton.*

All phases of dairy herd management with special emphasis on the following: herd appraisal, auction sales; classification, health programs; applications for registry and health certificates; intra- and inter-state shipments of animals; dairy farm plans and practices.

380. DAIRY CATTLE JUDGING. 3 hours. *Mr. Clifton.*

A course planned to offer instruction in the judging of dairy cattle according to type and conformation.

385. DAIRY PRODUCTS JUDGING AND GRADING. 3 hours. *Mr. Sheuring.*

Scoring and grading of milk, butter, cheese, and ice cream.

388. MILK SANITATION. 3 hours. *Mr. Bennett.* (Offered in alternate years; offered in 1961-62.)

A course especially designed for students interested in employment in milk inspection work. Training is given in interpretation of the recommendations of the U. S. Public Health Service Milk Ordinance Code, inspection of dairy farms and plants, state and municipal dairy ordinances, and methods used in conducting a milk sanitation program.

389. DAIRY MICROBIOLOGY. Prerequisite: Bacteriology 350. *Mr. Bennett.*

Determination of numbers and types of bacteria; use of microorganisms in the manufacture of dairy products; study of milk fermentations and disease producing organisms applicable to milk.

390. DAIRY CATTLE BREEDING. Prerequisite: Plant Pathology 358. *Mr. Fosgate.*

A study of factors involved in improving the genotype and phenotype of dairy cattle. Mating systems and techniques, production testing, type classification, sire proofs and

pedigrees. Application of genetics, anatomy, endocrinology, and physiology to improvement of dairy cattle.

392. DAIRY CATTLE NUTRITION. Prerequisites: Animal Husbandry 373, Chemistry 260. *Mr. Fosgate.*

The application of fundamental knowledge of nutrition, physiology, environment, and economics in the feeding and management of the dairy herd.

394. MARKET MILK AND RELATED PRODUCTS. *Mr. Sheuring.*

The sanitary and legal requirements for producing, handling and processing milk and related products; approved production methods; quality tests; processing operations; plant sanitation and efficiency.

395. DAIRY PLANT MANAGEMENT. *Mr. Sheuring.*

Fundamental principles of business and factory management practices as used in the dairy industry. Problems of personnel management, production methods, quality control, merchandising, dairy plant design and construction, records and business methods involved in dairy plant operations.

396. BUTTER AND CHEESE TECHNOLOGY. Prerequisite: Dairy 389. *Mr. Sheuring.* (Offered in alternate years. Not offered in 1961-62.)

Theory and practices involved in the manufacture of dairy products through coagulation and precipitation phenomena as well as control fermentation; cheese varieties, butter, and fermented milks; starter activity; cheese ripening; and butter flavor development.

399. ICE CREAM MAKING. Prerequisite: Dairy 103. *Mr. Sheuring.*

Basic principles of ice cream mix composition, standardization, flavoring, stabilization, processing, freezing, merchandising, and storage of ice cream, sherbets, ices, and soft-serve dairy products.

411. MICROBIOLOGY OF MARKET MILK AND ICE CREAM. Prerequisites: Chemistry 260, and Dairy 389. *Mr. Bennett.*

Microorganisms found in market milk, ice cream, and related products and their relationship to spoilage of the products and to epidemiology.

412. (BACTERIOLOGY) MICROBIOLOGY OF BUTTER, CHEESE, AND CULTURED MILKS. Prerequisites: Chemistry 260, and Dairy 389. *Mr. Bennett.*

Metabolic changes resulting from the growth of microorganisms occurring in milk and cream intended for manufacturing dairy products, and in butter, cheese, and cultured milks; bacteriophage affecting dairy microorganisms.

491. ARTIFICIAL INSEMINATION. 2 hours. Prerequisite: Zoology 390, Dairy 379, 390, or Animal Husbandry 405 or equivalent. *Mr. Fosgate.*

A study of the techniques involved in artificial insemination of farm animals with major emphasis placed on dairy cattle. The principle involved in semen production, collection, evaluation and use for insemination will be discussed.

493. MILK SECRETION. 3 hours. Prerequisites: Zoology 390, Dairy 379, 390, or equivalent. *Mr. Fosgate.*

The application of certain fundamentals of anatomy, biochemistry, and physiology to a study of milky secretion. The relationship of various farm practices to maximum milk yields will be discussed from the fundamental standpoint.

GRADUATE COURSES

800. DAIRY CHEMISTRY. Prerequisites: Dairy 350, 389, 394, or equivalent. *Mr. Sheuring.*

A comprehensive study of the fundamental chemical and physical properties of milk and milk products. The basic laws concerning factors that affect the chemical composition, pH, viscosity, surface tension and coagulation of milk will be studied. The course will consist of lectures, discussions, surveys of literature, and special reports.

801. THE NUTRITIONAL PROPERTIES OF DAIRY PRODUCTS. Prerequisites: Chemistry 451, Dairy 800 or their equivalent. *Mr. Sheuring.*

A study of the basic nutritional properties of the constituents of milk and milk products and the effect of processing and storage methods upon these nutritive values.

802. THE CHEMICAL ANALYSIS OF DAIRY PRODUCTS. Prerequisites: Chemistry 380, Dairy 800 or their equivalent. *Mr. Sheuring.*

Theory and practice in analytical methods used for control and research in dairy chemistry; analysis of milk, fat, protein, lactose, lactalbumin, lactoglobulin, and minerals; methods of determining hydrolytic and oxidative rancidity; factors involving rennin action, surface tension, viscosity and freezing point determinations. The course consists of lectures and laboratory assignments.

803. PHYSICAL CHEMISTRY OF DAIRY PRODUCTS. Prerequisites: Chemistry 390, Dairy 802, or their equivalents. *Mr. Sheuring.*

Lectures and laboratory exercises concerning oxidation-reduction potentials, surface tension, absorption, plasticity, isoelectric point of proteins, colloidal properties of milk constituents, emulsions, and molecular dispersions as related to milk and milk products.

805-806. SPECIAL PROBLEMS IN DAIRY CATTLE FEEDING AND MANAGEMENT. 10 hours. Prerequisite: Dairy 390, 392, 394 or equivalent. *Mr. Clifton, Mr. Fosgate and Mr. Miller.*

A study of research work on the subject with special problems to be selected.

810. DAIRY SEMINAR. 1 hour (for one to six quarters). Prerequisite: Graduate standing. *The Staff.*

Presentation and critical discussion of student research problems.

819. ADVANCED DAIRY TECHNOLOGY. Prerequisites: Dairy 800, Physics 334, or their equivalents. *Mr. Sheuring.*

A study of basic chemical, physical, bacteriological and mechanical problems involved in the engineering and design of dairy processing equipment; theories of heat transfer, thermodynamics; thermal properties of solids and liquids; properties of metals, utilization of high pressures, partial vacuums and mechanical principles as affecting design, construction and operation of dairy equipment.

820. DAIRY TECHNOLOGY PROBLEMS. Prerequisites: Two graduate courses in dairying or their equivalents, and the consent of the major professor. *The Staff.*

A special course for students qualified to carry out individual projects in dairy production, bacteriology, of manufacturing. Work to be done independently of the regularly scheduled classes. The course is available only to advanced graduate students and with the consent of the major professor.

930. THESIS RESEARCH IN DAIRYING. 5 to 50 hours.

Offered any quarter to meet the needs of any candidate for a degree of Master of Science. Open only to graduate students majoring in the field of dairying.

ENTOMOLOGY

(Biological Science Building, South Campus)

Head: Lund. Staff: Hunter, Johnson, Jordan, Paul, Robertson.

It is generally recognized that a thorough knowledge of insect control is necessary for the successful growing of either farm plants or farm animals and should, therefore, be a part of the training of all agricultural personnel. In addition many positions in teaching, research, control, and extension entomology exist in colleges and universities, experiment stations, state departments of entomology, the United States Department of Agriculture, the United States Public Health Service, and in various private concerns doing pest control or insecticide compounding or manufacturing. Advanced study leading to advanced degrees and to high teaching and research positions is also available. The entomology major provides an excellent pre-medical program.

Students who specialize in entomology receive training in the identification of insects and the damage they cause, their structure, habits, and control.

Students who plan to major in Entomology should include Mathematics 101 and Chemistry 340b in their freshman-sophomore courses.

CONCENTRATION IN ENTOMOLOGY

Science Option

MAJOR: Four senior division courses in Entomology, three of which much be chosen from Entomology 373, 374, 376, 477..... 20 Hours
SCIENCE SELECTIONS FROM: Bacteriology 350, Plant Pathology

358 and three additional courses from the following: Botany 375, Botany 380, Geology 125, Plant Pathology 353, Zoology 390, Mathematics 356.....	25 Hours
FIRST MINOR: To be approved by Head of Department.....	10 Hours
SECOND MINOR: Must be in College of Agriculture.....	10 Hours
ELECTIVES AND SPECIAL REQUIREMENTS.....	40 Hours
To be chosen with the objective of obtaining information that will contribute most to students' basic knowledge for effective work in Entomology, and to be approved by the major professor. Philosophy 358 and 10 hours of a foreign language are required.	

CONCENTRATION IN ENTOMOLOGY

Administration Option

MAJOR: Four senior division courses in Entomology, three of which must be chosen from Entomology 373, 374, 376, 477.....	20 Hours
AGRICULTURAL ECONOMICS: 304, 408, 467.....	15 Hours
BUSINESS ADMINISTRATION: 110, 370 and an additional 10 hours in Business Administration approved by major professor.....	20 Hours
SPECIAL SELECTIONS: Plant Pathology 353, 358.....	10 Hours
SPECIAL REQUIREMENTS: Mathematics 356 or Economics 312, Agricultural Economics 469 or Economics 330, Philosophy 358	15 Hours
ELECTIVES: To be selected with approval of major professor.....	25 Hours

ENTOMOLOGY

373. GENERAL ENTOMOLOGY. Three lectures and two double laboratory periods. Prerequisites: Two courses in plant or animal biology. *Mr. Paul.*

A field and laboratory study of the structure, biology, and classification of insects and of their general importance and significance to man.

374. ECONOMIC ENTOMOLOGY. Three lectures and two double laboratory periods. Prerequisites: Two courses in plant or animal biology. *Mr. Paul.*

A course designed to provide the practical information essential for the recognition and control of the insect pests most commonly encountered in the field, orchard, garden, woodlot, and home.

376. MEDICAL ENTOMOLOGY. Three lectures and two double laboratory periods. Prerequisites: Two courses in plant or animal biology. *Mr. Lund.*

A study of biology, identification, and control of the species of insects and related arthropods of particular importance in the cause of transmission of diseases of man and the lower animals.

382. FOREST PROTECTION: ENTOMOLOGY. Three double laboratory periods. Prerequisites: Two courses in plant or animal biology. *Mr. Lund.*

A study of the biology, identification and control of the species of insects destructive to American forests.

474. ADVANCED ECONOMIC ENTOMOLOGY. Three lectures and two double laboratory periods. Prerequisite: One of the following entomology courses: 373, 374, 375, or 376. For graduate credit, one additional senior division course is required. *Mr. Paul.*

An advanced treatment of economic entomology, including actual field work in experimental methods, biological control, and the insect transmission of plant diseases.

477. CHEMISTRY AND TOXICOLOGY OF INSECTICIDES AND FUNGICIDES: Three lectures and two double laboratory periods. Prerequisites: one course in organic chemistry and one of the following entomology courses: 373, 374,

375, or 376. For graduate credit, one additional senior division course is required. *Mr. Paul.*

A study of the physical and chemical behavior of insecticides, and accessory materials and of their toxicological effects upon plants and animals.

480. INTRODUCTORY ACAROLGY. Three lectures and two double laboratory periods. Prerequisite: One of the following Entomology courses: 373, 374, 375, 376. For graduate credit, one additional senior division course is required. *Mr. Hunter.*

Structure, classification, and biology of mites and the control of those forms known to be of importance to the health and welfare of man.

573. FIELD AND STREAM BIOLOGY WITH EMPHASIS ON INSECTS AND RELATED FORMS. Two lectures and three double laboratory periods. Prerequisite: Two elementary courses in biological science and two courses numbered 300 or above in biological science or education. *Mr. Paul.*

A study of insects and related forms found on land and in water; their identification and life habits, and the control of noxious forms, with emphasis on the use of these forms in the teaching of high school biology.

GRADUATE COURSES

805. INSECT PARASITES. Prerequisites: Entomology 376 and one additional senior division course in entomology. *Mr. Lund.*

An advanced study of the structure, life-histories, and identification of those insects and related arthropods which cause or transmit disease in man or lower animals.

871. TAXONOMY OF INSECT LARVAE. Two lectures and three double laboratory periods. Prerequisites: Any one of the following: Entomology 373, 374, 375, or 376 and one additional senior division course. *Mr. Lund.* (Offered alternate years).

A study of the classification, biology, and phylogenetic and economic significance of insect larvae.

873. ADVANCED GENERAL ENTOMOLOGY. Three lectures and two double laboratory periods. Prerequisites: Entomology 373 and one additional senior division course are required. *Mr. Lund.* (Offered alternate years).

An advanced treatment of general entomology, including biological nomenclature, insect evolution and classification, sensory physiology, and other special topics.

DEPARTMENT OF FOOD TECHNOLOGY

(Food Technology Building, South Campus)

Head: Powers. Staff: Flanagan, Hamdy, May, Pratt, and Saffle

The food processing industry is a 79 billion dollar industry in the United States. The industry is approximately four times larger than the next largest manufacturing industry. Because of the size of the food industry, the high percentage of foods which are marketed as a processed food rather than as a fresh or raw product, because improvements and new developments are the life-blood of the American competitive system, and because other industries closely related to the food industry, such as the packaging industry, employing food technologists — there is a constant demand for college graduates with training in food technology.

The Department of Food Technology offers both undergraduate and graduate instruction designed to give basic, technical training for such industries as canning, freezing, pickling, preserving, meat and poultry processing, and the preparation and preservation of specialty food products. Superior students are encouraged to undertake graduate study because of the greater opportunities open to food technologists with an ad-

vanced degree. The department offers major work for the Master of Science and Doctor of Philosophy degrees.

Briefly, occupations open to graduates are: research and development work in industry; production work in industry such as in canneries, freezing plants, and meat and poultry processing plants; technical sales within the food field itself or in closely related fields such as the container and equipment manufacturing fields; food inspection and grading with federal, state, or municipal agencies; teaching; extension work; research work in experimental stations and in other branches of government; food consulting; and promotional work with public or private utilities.

Usually some financial assistance is given students in the form of part-time employment as student helpers either as a part of College Experiment Station research projects or research supported by industrial grants-in-aid. The College of Agriculture has general scholarships, for which students may apply, by writing to the Director of Resident Instruction. The Department of Food Technology has a limited number of scholarships available for majors in food technology. Details as to application for the latter scholarships may be secured from the Head of the Food Technology Department.

Scholarships are also available through the Institute of Food Technologists. At present there are eight undergraduate scholarships of \$1,000 each awarded yearly upon a national basis. In addition, the Institute assigns a limited number of scholarships directly to recognized Food Technology Departments to be awarded by the Department to deserving students. The Food Technology Department can furnish information concerning the method of application.

The Institute of Food Technologists also awards graduate fellowships. Three scholarships of \$4,000 are sponsored by the General Foods Corporation, one fellowship of \$1,000 by the Florasynth Company, and one fellowship of \$1,000 by the Refrigeration Research Foundation. Details as to the mode of application can be secured from this Department or from the Institute of Food Technologists. The Refrigeration Research Foundation sponsors a second fellowship of \$2,500 which it awards through the Foundation itself.

The Department has outstanding facilities for instruction and for research. It is housed in a new building completed in 1959 and exceeding one million dollars in cost. Facilities are available for the processing of all types of meat, poultry, and horticultural products, for food packaging studies, and for radioisotopic, chemical, and microbiological studies involving foods.

Programs of study are worked out individually for each student. The general requirements are outlined below.

REQUIREMENTS FOR A MAJOR IN FOOD TECHNOLOGY

The Food Technology Department offers two concentrations with a major in Food Technology.

CONCENTRATION IN FOOD SCIENCE: This concentration is designed for students who intend to enter graduate school, work in industrial research and development, or in other activities calling for a high degree of scientific competence.

CONCENTRATION IN FOOD TECHNOLOGY ADMINISTRATION: This concentration is designed for students whose interests and ability lean more toward the management side of the food industry than the scientific phases.

CONCENTRATION IN FOOD SCIENCE*

Science Option

MAJOR: Food Technology 300, 411, 414, and one other 5-hour food technology course.....	20 Hours
SCIENCE SELECTION: Bacteriology 350, Chemistry 380, and 15 additional hours to be selected in consultation with departmental adviser.....	25 Hours
FIRST MINOR: Any department in the University.....	10 Hours
SECOND MINOR: Any department in the College of Agriculture.....	10 Hours
SPECIAL REQUIREMENT: Food Technology 423.....	5 Hours
ELECTIVES	35 Hours

CONCENTRATION IN FOOD TECHNOLOGY

Administration Option

MAJOR: Food Technology 300 and 15 additional hours in Food Technology	20 Hours
AGRICULTURAL ECONOMICS: 304, 408, 467.....	15 Hours
BUSINESS ADMINISTRATION: 110, 151, 370, and an additional 5-hour course approved by Food Technology Department.....	20 Hours
SCIENCE SELECTIVES: Bacteriology 350 and Mathematics 101.....	10 Hours
SPECIAL REQUIREMENTS: 10 hours of course work in statistics and finance.....	10 Hours
ELECTIVES	30 Hours

FOOD TECHNOLOGY

300. FOOD PRESERVATION. Three lectures and two 2-hour laboratories.

Mr. Powers, Mr. Pratt.

Chemical, microbiological, and enzymatic changes occurring in foods and the control of such activity by various methods of processing and storage will be studied. Consideration will be given to questions of public health, nutritive value, quality of the finished product, and governmental regulations.

364. TECHNOLOGY OF FROZEN AND REFRIGERATED FOODS. 3 hours. Two lectures and one 2-hour laboratory. *Mr. Pratt.*

Chemical and physical changes encountered during freezing and refrigerated storage of foods, causes of spoilage, packaging, the retention of nutrients, and quality control. Principles of basic refrigeration systems and equipment and methods used in freezing fruit, vegetable, meat, and marine products at home, in locker plants, and as large commercial enterprises.

*To meet the minimum requirement recommended by the Institute of Food Technologists for a major in food technology, a student should follow the Food Science Concentration and should select his Freshman-Sophomore agricultural electives and general electives, the science selectives, the minors, and Junior-Senior electives such that he will reach the following levels of attainment: Chemistry 121, 122, 223, 260, 380, 451, 490a, 490b, and 490c; Mathematics 100, 101, 210, 254, and 255; Physics 120, 127, 128, and one additional 5-hour course in physics; 5 credit hours in nutrition; 25 hours in biological science, including Bacteriology 350 and Food Technology (Bacteriology) 395; 15 hours of Unit Operations (Agricultural Engineering 209 and 230 and certain other courses in engineering, physics, or food technology); 25 hours of food technology courses; 15 hours in English and speech; and not less than 24 hours in economics, the humanities, and social science. By proper selection of courses, a student can comply with all the requirements of the Curriculum of the College of Agriculture and the recommended curriculum of the Institute of Food Technologists. Variations from the course of study recommended by the Institute of Food Technologists are permitted—in consultation with the major adviser—provided the program meets the general requirements of the College of Agriculture.

365. MEAT CUTTING. Prerequisite: Bacteriology 350. *Mr. Flanagan.*

Designed to teach basic information concerning meat quality and skills in cutting beef, pork, lamb, and poultry products.

367. FOOD INDUSTRIES SURVEY. Prerequisites: Food Technology 300, 409 or equivalent. *Mr. Powers.* (Offered alternate years. Not offered 1961-62.)

This course includes the study of the sources of raw materials, the processing, storage, and handling of such processed foods as sugar, flour, salt, and spices; and the problems involved in the production of these products.

368. MEAT PROCESSING. Prerequisite: Bacteriology 350. *Mr. Flanagan.*

This course includes instruction in killing, skinning, dressing of pork and beef; grading, care of hides; utilization of inedibles; curing of beef and pork; smoking, packaging, and storing of cured pork products.

386. (POULTRY) POULTRY MARKET PRODUCTS TECHNOLOGY. Prerequisites: Poultry 160 or Food Technology 300 or equivalent. *Mr. May.*

Methods of processing shell, fluid and dried eggs, live and dressed poultry, and packaging and marketing of poultry products.

395. (BACTERIOLOGY) MICROBIOLOGY OF FOODS. Two lectures and three 2-hour laboratories. Prerequisite: Bacteriology 350. *Mr. Hamdy.*

Microorganisms in natural and processed foods; their origin, nature, and effects on foods; enumeration; relations to health.

409. COMMUNITY AND HOME FOOD PRESERVATION. Prerequisites: Bacteriology 350 and Chemistry 260 or equivalent. Three lectures and two 2-hour laboratories. *Mr. Powers, Mr. Pratt.*

The principles of food preservation will be studied with reference to present practices and possible improved practices in home and community food preservation. The effect of various methods of food preservation will be evaluated in terms of public health, food spoilage, food quality, and the nutritional value of the foods.

411. FOOD TECHNOLOGY PRINCIPLES AND INDUSTRIAL PRACTICES. Prerequisites: Bacteriology 350, Chemistry 260 and Food Technology 300 or 409. Two lectures and two 2-hour laboratories. *Mr. Powers.*

Biochemical, colloidal, enzymatic, microbial, and physical changes occurring in foods during processing will be integrated to show the fundamental principles of food technology. Present practices, the application of research and food technology principles to the development of better products, and the food purity laws will be among the subjects studied.

412. FOOD TECHNOLOGY PRINCIPLES AND INDUSTRIAL PRACTICES. (Continued). *Mr. Pratt.***414. CHEMICAL AND MICROSCOPIC FOOD ANALYSIS.** Prerequisites: Bacteriology 350, Chemistry 260, Food Technology 300 or 409. One lecture and two 4-hour laboratories. *Mr. Hamdy.*

Chemical, microscopic, and organoleptic methods of food examination basic to the detection of adulteration, to food grading, and to quality control.

415 a-b. FOOD TECHNOLOGY SEMINAR. Prerequisites: Any two senior division courses in Food Technology. 2 hours each. *The Staff.*

A discussion course, required of all students majoring in the department in which journal articles from basic and applied fields of science are assigned, presented, and discussed.

415c. FOOD TECHNOLOGY SEMINAR. 1 hour. Same as the above course.**421. (BACTERIOLOGY) MICROBIAL FOOD ANALYSIS.** Prerequisite: Food Technology 414. One lecture and two 4-hour laboratories. *Mr. Hamdy.*

Microbiological, physical, and mathematical considerations involved in determining thermal death rates, rates of heat penetration, and in calculating the lethality of processes will be studied with particular references to spore-forming anaerobes. Isolation, enumeration, and factors affecting sporogenesis, dormancy, and spore germination will be studied. The General Method, Ball's Method, and the newer concepts of process calculation will be compared.

422. INSTRUMENTAL METHODS OF FOOD ANALYSIS. Prerequisite: Food Technology 414. Two lectures and two 4-hour laboratory periods per week. *Mr. Pratt.*

Polarographic, spectrophotometric, colorimetric, and potentiometric methods of analysis as applied to food will be studied. Emphasis will be placed upon correlation and interpretation of results.

423. FOOD PACKAGING. Prerequisite: Food Technology 412 and 414. Two lectures and three 3-hour laboratories. *Mr. Pratt.*

Physical, chemical, microbiological, and economic problems related to food packaging. Characteristics and uses of metal, glass, paper, and flexible film packaging materials and containers. Methods of testing packages and packaging materials for performance such as physical strength, water-vapor permeability, organic vapors transmission, odor transmission, greaseproofness, and humidity equilibria of foods.

424. **ADVANCED TECHNOLOGY OF MEAT, FISH, AND POULTRY PROCESSING.** Prerequisites: Food Technology 411, 414, and 421. *Mr. Saffle and Mr. Powers.*

Advanced theoretical and applied concepts relating to physical, chemical, enzymatic, and microbial changes occurring in meat, fish, and poultry products during processing will be studied with particular reference to canning, curing, freezing, refrigeration, spoilage of fresh and processed flesh products, and the use and development of by-products.

GRADUATE COURSES

800. (BACTERIOLOGY) **INDUSTRIAL FERMENTATIONS.** Prerequisites: Bacteriology 350 and Chemistry 451. Three lectures and two 3-hour laboratories. *Mr. Hamdy.* (Offered alternate years. Offered 1961-62.)

The ketogenic fermentation process, production of organic acids, enzymes, vitamins, antibiotics, dextran and other products from agricultural or industrial starting materials will be studied. Emphasis on theoretical or fundamental reactions involved and conditions affecting fermentation efficiency.

819-820. **METHODS IN FOOD TECHNOLOGY.** Prerequisite: Food Technology 414. Two discussion periods and six laboratory periods per week. *Mr. Powers and Staff.*

Selected problems associated with food preservation will be studied intensively to extend the student's knowledge of food technology principles and to develop greater facility in the appreciation of scientific methods to the solution of new problems. Principles and techniques from both basic and applied fields of science will be studied.

821. **THERMAL AND RADIATION STERILIZATION OF FOODS.** Prerequisites: Mathematics 255, or permission of the instructor; Food Technology 411 and 421; Bacteriology 409. Two lectures and three 3-hour laboratories. *Mr. Pratt.*

Mathematical, chemical, physical, and biological considerations affecting thermal and radiation process requirements of foods. Emphasis will be placed on death-rates of spoilage microorganisms and destruction-rates of enzymes when these are subjected to different heating conditions and different sources of radiation. Destruction-rates of spoilage agents will be integrated with heat and radiation penetration rates to derive processing time.

856. (CHEMISTRY) **PROTEIN CHEMISTRY.** Prerequisite: Chemistry 451. Three lectures and two 3-hour laboratories. *Mr. Hamdy.* (Offered alternate years; not offered 1961-62.)

An examination of the current literature on proteins, their structure, isolation, denaturation, enzymic and other biological activity. Consideration will be given to the physico-chemical properties, ion-protein interaction, and chemical modifications of proteins.

GENERAL AGRICULTURE

(Conner Hall, South Campus)

This concentration, known as General Agriculture, is open to any junior and senior student in the College of Agriculture. It is a combination of courses selected from all departments in the College. Students wishing to register for this program should report to the Director of Resident Instruction.

The science option in General Agriculture is recommended for students wishing to prepare themselves for *general farming*. As compared with majoring in any specific department, it may offer greater freedom in course selection.

CONCENTRATION IN GENERAL AGRICULTURE

Science Option

MAJOR: Agronomy 321 and 356, Animal Husbandry 358, Agricultural Economics 301.....	20 Hours
SCIENCE SELECTIONS: Bacteriology 350, Plant Pathology 353 and 358, Entomology 374, Botany 380 or Zoology 390.....	25 Hours
FIRST MINOR: Animal Husbandry 371, Poultry 371, Dairy 392 (any two courses).....	10 Hours
SECOND MINOR: Horticulture 362, Plant Pathology 356, 357, Agronomy 320, 332, 458 (any two courses).....	10 Hours
SPECIAL REQUIREMENTS: Food Technology 409, Agricultural Engineering 203.....	11 Hours
GENERAL ELECTIVES.....	30 Hours

DEPARTMENT OF HORTICULTURE

(Livestock-Poultry Building, South Campus)

Acting Division Chairman and Head: Livingstone. Staff: Bowden, Curtis, Daigle, Pokorny.

The Department of Horticulture offers courses designed to train young men and women for jobs in both the business and science of horticulture. For this purpose, and in keeping with modern trends, there are two general options which may be followed.

The administration option is designed for those students desiring to farm with vegetable, fruit, flower or nursery crops; to manage contracting or landscape nurseries; to enter the retail or wholesale florist business; or to become associated with businesses supplying or serving horticultural industries.

The science option is designed primarily for persons going into research or instruction. Usually such students sooner or later work towards advanced degrees. However, there are terminal positions as scientific aids, technicians, inspectors in regulatory services, fieldmen for canneries, technical representatives with allied industries, etc.

Within each of the above two general options, students may also concentrate in one of the several natural divisions of horticulture. These are floriculture, ornamental horticulture, pomology (fruit crops), and olericulture (vegetable crops). Students desiring to go on into research, instruction, or extension work would usually follow a general horticultural curriculum rather than concentrating in one of the natural crop divisions.

CONCENTRATION IN HORTICULTURE

Administration Option

MAJOR: Selected junior and senior courses in horticulture.....	20 Hours
AGRICULTURAL ECONOMICS: 304, 408, 467.....	15 Hours
BUSINESS ADMINISTRATION: 110, 370, and 10 other selected hours approved by adviser.....	20 Hours
SCIENCE SELECTIONS: Bacteriology 350, Botany 380, Entomology	

374, Plant Pathology 353 and 358.....	10 Hours
SPECIAL REQUIREMENTS: Economics 312 or Mathematics 356, Economics 330 or Agricultural Economics 469.....	10 Hours
ELECTIVES*: Approved by faculty adviser.....	30 Hours

CONCENTRATION IN HORTICULTURE

Science Option

MAJOR: Selected junior and senior courses in horticulture.....	20 Hours
SCIENCE SELECTIONS: Bacteriology 350, Botany 323, 380, Plant Pathology 353 and 358, Entomology 374.....	25 Hours
FIRST MINOR: To be approved by Head of Department. Two junior or senior courses in any one department of the University	10 Hours
SECOND MINOR: Two junior or senior courses in any department of the College of Agriculture. To be approved by Head of Department	10 Hours
ELECTIVES*: Approved by faculty adviser.....	40 Hours

HORTICULTURE

101. GENERAL HORTICULTURE. 3 hours. *Mr. Curtis.*

A survey of the field of horticulture with discussions of the principles and practices used in vegetable, fruit, flower, and ornamental plant production.

308. PRINCIPLES OF HORTICULTURE. Prerequisite: Botany 121, 122. *Mr. Curtis.*

A study of the principles of plant growth as they are applied to the production of horticultural crop plants. Emphasis is placed on the effect of temperatures, light, nutrients, and water on growth and development. This course required of majors in horticulture.

310. GREENHOUSE CONSTRUCTION AND MANAGEMENT. 3 hours. *Mr. Bowden.*

Emphasis is placed upon types of greenhouses and methods of construction; geographical and topographical locations; structural materials; heating; equipment; plans; estimates; irrigation; and management. Cloth and lath or slat houses; coldframes and hotbeds; pits and storage houses.

311. FLORAL DESIGN. 3 hours. *Mr. Bowden.*

The commercial aspects of floral design. Emphasis is placed upon the science, art, and psychology of color; line and design; floral designs, basket and bowl arrangements; church, house, hotel and wedding decorations as well as wedding bouquets, corsages and emblems.

316. FLOWER STORE MANAGEMENT. 2 hours. *Mr. Bowden.*

A study of materials, equipment, supplies, and arrangement of retail floral shops. Sources of flowers and supplies.

321. (LANDSCAPE ARCHITECTURE) THE MAINTENANCE OF ORNAMENTAL PLANTINGS AND LANDSCAPE MANAGEMENT. 3 hours. Prerequisite: Horticulture 101. *Mr. Johnstone.*

Formulation and study of a work program which considers those essential operations contributing to the successful landscape management of grounds. Methods of maintaining lawns, hedges, perennial and annual beds and borders, walks, pools, trees, specimen plants and other ornamental plantings.

353. SPRAYS, DUSTS, AND FUMIGANTS AND THEIR APPLICATIONS. Prerequisites: Plant Pathology 353 and Entomology 374. *Mr. Curtis.*

Selection, preparation, and application of sprays, dusts, and fumigants for the control of insects, diseases, weeds, and other pests of horticultural crops. Especial attention is

*Note: Suggested electives for both options: Agricultural Economics 304, Agronomy 324, 356, 423, 459, Animal Husbandry 373, Botany 305 or 306, 323, Chemistry 223, 380, Food Technology 363 or 409, Geology 125, Landscape Architecture 313, 351, 352, Plant Pathology 357, Business Administration 370, 560, 561, 562, 563, Advanced Military or Air Science. Additional horticultural courses. Electives to be adapted to fit student requirements, as approved by Head of Department.

given to spraying and dusting schedules, effects of various chemicals on different kinds of plants, ecological factors, residues, application machinery, and economical considerations. The practical side of pest control is stressed.

362. PLANT PROPAGATION. Prerequisite: Horticulture 101, or Botany 121, 122. *Mr. Pokorny.*

Principles and practices of plant propagation as applied primarily to horticultural crops. The culture and care of nursery properties are also considered.

363. NURSERY MANAGEMENT. Prerequisite: Horticulture 362 or permission of the instructor. *Mr. Pokorny.*

Designed for students interested in the problems of nursery management and production, including the history and development of the nursery business today.

400. HORTICULTURAL SEMINAR. 1 hour. *The Staff.*

Open to all students in related fields. Attendance without registering for credit is permitted. Papers on selected topics to be presented by advanced students, faculty members, and guest speakers.

401. THE FUNDAMENTALS OF FRUIT PRODUCTION. Prerequisites: Botany 380, Horticulture 353 or Plant Pathology 353, or equivalent. *Mr. Curtis.*

This course deals with the biological and chemical principles of plant life as directly applied to the economic production of fruit crops.

402. ADVANCED POMOLOGY. Prerequisites: Horticulture 401, Plant Pathology 357, Entomology 374. *The Staff.* (Offered alternate years).

Photosynthesis, respiration, transpiration, translocation and other physiological processes as they are related to problems in fruit production. The effects of environmental factors on vegetative growth, flowering and fruiting are also considered. A comprehensive review of the literature on research which has led to solutions of problems in production is a part of the course.

403. THE PRINCIPLES OF VEGETABLE PRODUCTION. Prerequisites: Botany 380, Entomology 374. *The Staff.*

A study of the principles and practices involved in the production of vegetable crops. The literature on research having to do with the development of olericulture is reviewed and studied in relation to current problems.

404. ADVANCED OLERICULTURE. Prerequisites: Plant Pathology 353 and Horticulture 403. *The Staff.* (Offered alternate years.)

Photosynthesis, respiration, translocation, transpiration and other physiological processes as they are related to problems in vegetable production. The reaction of the above to changes in environmental factors, and the interaction of the above to changes in environmental-genetical factors upon vegetative growth, flowering, and fruiting are stressed. Research literature is thoroughly reviewed.

405. FLORICULTURE. Prerequisites: Botany 380 and Horticulture 308. *Mr. Bowden.*

Fundamental principles of plant growth and the effects of environmental factors such as temperature, water, air, nutrients, photoperiod and light intensity as they are related to cut flowers and potted plants grown under glass.

406. ADVANCED FLORICULTURE. Prerequisites: Botany 323 and Horticulture 405. *Mr. Bowden.*

A comprehensive review of pertinent scientific literature and research on the ecology, physiology and other growth processes, storage, transportation, and distribution of commercial cut flowers and potted plants.

407-408. SPECIAL PROBLEMS IN HORTICULTURE. 2-5 hours each. For summer work 10 hours must be selected. Prerequisites: Horticulture 101, and at least 10 hours in one of the horticultural concentrations, or equivalent in experience or other combinations of courses. *Mr. Bowden* and *Mr. Curtis.*

For the advanced undergraduate or graduate student who wishes to gain practical experience. Required of all major students who do not have a farm or plant production background. Graduate students must schedule at least 5 hours a quarter and must undertake a minor research problem under direction of a staff member.

421. THE HANDLING, PREPARATION FOR MARKET, AND STORAGE OF FRUITS AND VEGETABLES. Prerequisites: Two senior college courses in fruits or vegetables. *The Staff.*

Physiology of maturation and the effects of temperature, light bruising and other factors on ripening. Also the relation of the above to various operations and equipment used in harvesting, handling, preparation for market and storage of fruits and vegetables.

GRADUATE COURSES

801. HORTICULTURAL CROP IMPROVEMENT. Prerequisite: Plant Pathology 358, 401 or equivalent. *The Staff*.

A study of the applications of the principles of genetics and plant breeding to the modification and improvement of horticultural plants. The maintenance of improved strains and seed production are also considered.

809. THE HISTORY, LITERATURE, AND DEVELOPMENT OF HORTICULTURE. Prerequisites: Two senior college courses in Horticulture. *Mr. Curtis*.

This course traces the important steps in the development of the applied science of horticulture as it is today. Particular reference is made to contributions of outstanding leaders in horticultural enterprises and organized research.

DEPARTMENT OF PLANT PATHOLOGY AND PLANT BREEDING

(Food Technology Building, South Campus)

Division Chairman and Head: Owen. Staff: Browne, Bryan, Fleming, Kozelnicky, Powell, Thompson, Zak.

The introduction of many new diseases of agricultural crops and the importance placed on breeding plants for resistance to diseases has greatly increased the demand for trained personnel in these fields.

The specialized courses given in this department are designed to give instruction in the agencies causing diseases in plants and their effects upon the plant. They also include the principal methods by which these diseases may be controlled. The student also receives training in the principles and methods used in development of new varieties or strains of cultivated plants which are better adapted to agricultural uses and which are more resistant to certain diseases.

Students who specialize in this department receive training that will prepare them for work in the following fields:

1. Experiment station or U. S. D. A. specialists
2. Agricultural Extension specialists
3. State plant inspectors
4. Research or sales promotion workers for manufacturers of fungicides or insecticides
5. Plant breeders or other personnel for commercial seed companies.
6. Specialized types of agriculture such as commercial plant growers or producers of certified seed
7. Preparation for advanced study in fields of plant pathology or plant breeding leading toward the doctorate.

The outline study is so arranged that the student may concentrate on diseases or breeding of crops with which he will later be concerned. The following concentrations are proposed but can be modified within a fairly wide degree of latitude depending upon the requirements of the student.

CONCENTRATION IN PLANT PATHOLOGY

Science Option

MAJOR: Plant Pathology 356, 357, 420-421..... 20 Hours

SCIENCE SELECTIONS: Bacteriology 350, Botany 380, Plant

Pathology 353, 358, Mathematics 356 or Economics 312.....	25 Hours
MINOR 1: Entomology 374, 477.....	10 Hours
MINOR 2: Botany 323, 327.....	10 Hours
ELECTIVES FROM THE FOLLOWING: Agronomy 320, 321, 324, 356, Botany 305, 358, 483, French 103, 104, German 103, 104 205, Horticulture 308, 353, 401, 403, Plant Pathology 401, 402, 425	40 Hours

CONCENTRATION IN PLANT PATHOLOGY

Administration Option

MAJOR: Plant Pathology 353, 356, 357, 358.....	20 Hours
AGRICULTURAL ECONOMICS: 304, 408, 467.....	15 Hours
BUSINESS ADMINISTRATION: 110, 111, 368, 370.....	20 Hours
SCIENCE SELECTIONS: Bacteriology 350, Entomology 374.....	10 Hours
SPECIAL REQUIREMENTS: Mathematics 356 or Economics 312, Agricultural Economics 469 or Economics 330.....	10 Hours
ELECTIVES FROM THE FOLLOWING: Agronomy 320, 324, 356, 461, Botany 305, 380, Entomology 373, 477, Horticulture 308, 353, Plant Pathology 402, 425.....	30 Hours

CONCENTRATION IN PLANT BREEDING

Science Option

MAJOR: Plant Pathology 356 or 357, 358, 401, 402.....	20 Hours
SCIENCE SELECTION: Bacteriology 350, Botany 380, Entomology 374, Mathematics 356 or Economics 312, Plant Pathology 353	25 Hours
MINOR 1: Two senior division courses in College of Agriculture to be approved by the major professor.....	10 Hours
MINOR 2: Botany 323, 375.....	10 Hours
ELECTIVES FROM THE FOLLOWING: Agricultural Economics 301, 304, 364, Agronomy 320, 321, 324, 332, 356, 425, 461, Botany 305, 358, 483, Animal Husbandry 371, 372, 373, Geo- logy 125, Horticulture 353, 362, 401, 403, Zoology 401, or any other appropriate senior division courses approved by major professor	40 Hours

CONCENTRATION IN PLANT BREEDING

Administration Option

MAJOR: Plant Pathology 353, 356 or 357, 358, 402.....	20 Hours
AGRICULTURAL ECONOMICS: 304, 408, 467.....	15 Hours
BUSINESS ADMINISTRATION: 110, 111, 368, 370.....	20 Hours
SCIENCE SELECTIONS: Bacteriology 350, Entomology 374.....	10 Hours
SPECIAL REQUIREMENTS: Agricultural Economics 469 or Eco- nomics 330, Mathematics 356 or Economics 312.....	10 Hours

ELECTIVES FROM THE FOLLOWING: Agronomy 320, 321, 324, 332, 356, Botany 305, 375, 380, Entomology 373, Horticulture 308, 353, 362, 401..... 30 Hours

PLANT PATHOLOGY AND PLANT BREEDING

353. ELEMENTARY PLANT PATHOLOGY. Three lectures and two laboratory periods. Prerequisites: Botany 121, 122. *Mr. Owen.*

A general introduction to the diseases of plants. Representative types will be studied in field and laboratory.

356. DISEASES OF FIELD CROPS. Three lecture and two double laboratory periods. Prerequisite: Plant Pathology 353. *Mr. Owen.*

A course designed to meet the needs of students in plant pathology and agronomy.

357. DISEASES OF HORTICULTURAL CROPS. Three lecture and two double laboratory periods. Prerequisite: Plant Pathology 353. *Mr. Thompson.*

A study of the more important diseases of fruits, vegetables, and ornamentals.

358. AGRICULTURAL GENETICS. Prerequisites: Botany 121-122, or Zoology 225-226. *Mr. Fleming.*

An introductory course in agricultural genetics designed to acquaint the student with principles of heredity and variation and their application to breeding.

383. (FORESTRY) FOREST PATHOLOGY. 3 hours. *Mr. Thompson.*

This course is similar to Plant Pathology 353, but differs in the use of types causing death or decay in trees. Methods of control suitable to both forest and city conditions are studied.

401. PLANT GENETICS. Prerequisite: Plant Pathology 358. *Mr. Fleming.*

Advanced studies in inheritance of plants, including the genetics of sterility and disease resistance, linkage, application of chi-square to genetic experiments; cytoplasmic and quantitative inheritance; mutations and radiation.

402. PLANT BREEDING. Prerequisite: Plant Pathology 358. *Mr. Fleming.*

Fundamental methods utilized in the science of plant breeding and the important role that breeding plays in crop and tree improvement.

415 a-b-c. PLANT PATHOLOGY AND PLANT BREEDING SEMINAR. 1 hour each. *The Staff.*

Topics pertaining to Plant Pathology and Plant Breeding research will be presented by students and followed by a general discussion. Graduate students and faculty members will participate.

420-421. MYCOLOGY. 5 hours each. Three lecture and two double laboratory periods. Double course. Prerequisites: Two suitable senior division courses in either botany, microbiology or zoology. *Mr. Owen.*

Comparative morphology of the fungi. Techniques of culture methods, isolation, sectioning, and inoculation are included.

425. PLANT NEMATOLOGY. Prerequisite: Plant Pathology 353 or 383. *Mr. Owen.*

Diseases of crop plants caused by nematodes, including a study of the symptoms, hosts, distribution, economic importance, dissemination, and control. The identification, classification, and pathogenicity of these plant parasites, along with the pathological anatomy of the diseased plant tissue showing the location of the parasite and its microscopic effect on the host cells are included.

GRADUATE COURSES

800-801. RESEARCH IN PLANT PATHOLOGY. 5 hours each. Prerequisites: Two senior division courses in Plant Pathology. *The Staff.*

This course involves the prosecution of a problem in plant disease with parallel reading and conferences with the instructor.

810-811. RESEARCH IN PLANT GENETICS. 5 hours each. Prerequisites: Two senior division courses in Plant Pathology, Plant Breeding, or Botany. *Mr. Fleming.*

This series consists of a breeding problem with field studies, appropriate readings, and conferences.

812. (AGRONOMY) SPECIALIZED PLANT BREEDING. Prerequisites: Plant

Pathology 353, 402, and one senior division course in crop production. *Mr. Brown, Mr. Fleming, Mr. Rogers, and Mr. Douglas.*

Conducted cooperatively by the Department of Agronomy and Department of Plant Pathology and Plant Breeding. A combination of lectures and laboratory periods in the greenhouse and experimental field with emphasis on fundamental practices and techniques used in the development of farm-crop varieties and hybrids. Opportunity for student to receive personal supervision.

815. **ADVANCED PLANT PATHOLOGY AND PLANT BREEDING SEMINAR.** 1 hour per quarter for 1 to 6 quarters. *The Staff.*

Topics related to research in Plant Pathology and Plant Breeding, including literature review, materials and methods and results pertaining to experimental work.

POULTRY DEPARTMENT

(Livestock-Poultry Building, South Campus)

Division Chairman and Head: Driggers. Staff: Dembnicki, Edwards, Fuller, Hess, Huston, Jones, May, Noles, Reid, Tindell, Wheeler.
Associate Staff: Boyd, Davis, Kleckner, Richey, Schmittle.

The courses in the Department of Poultry Husbandry are designed to prepare the student for work in the poultry industry, its allied fields, and to pursue graduate study.

Students who major in this department receive training that will prepare them for work in the following fields:

1. Commercial poultry farming.
2. The feed industry: diet formulation, sales and service, and quality control.
3. The processing industry: plant operation and personnel management.
4. Experiment Station and Extension specialist.
5. The hatchery business: incubation and hatching egg production.
6. Advance study leading to the M.S. and Ph.D. in the fields of poultry nutrition, genetics, market products technology, diseases and parasites, and physiology.

Adequate facilities and technical equipment are available for both teaching and research uses. At the Poultry Research Unit, located on the campus, facilities include 4 modern laying houses with a capacity of approximately 8,000 laying hens and sufficient modern brooder house space for rearing this stock. Several smaller laying and brooder houses are available for conducting research with smaller numbers. There are 18 pens of exhibition fowl for use by judging teams. Facilities also include a separate laboratory where constant temperatures can be maintained for heat tolerance studies with mature fowl; a nutrition laboratory wherein several thousand chicks can be grown to broiler age under uniform conditions for the conduct of fundamental nutrition research; and more than 100 breeding pens for teaching and research in poultry breeding and genetics.

A broiler research center is located 3 miles from Athens on the University's Whitehall Poultry Farm. This center includes facilities for growing 16,000 broilers experimentally under conditions approximating commercial broiler growing. This Farm includes facilities for brooding and rearing several thousand turkeys in confinement and approximately 350 acres of range land.

The Southern Regional Poultry Genetics Laboratory is located at the University of Georgia. Here the results of research in poultry breeding at the 13 Southern Experiment Stations and Puerto Rico are brought

together for evaluation and comparison. This activity focuses the attention of poultry breeders all over the country on the University of Georgia and its poultry program.

Students majoring in poultry have opportunities for experience in poultry disease diagnosis. Facilities for the study and diagnosis of diseases include The University of Georgia Poultry Disease Research Center and The School of Veterinary Medicine.

The poultry industry in Georgia ranks first among the agricultural enterprises which bring the greatest cash income to the farmers. The demand for well trained men in poultry husbandry far exceeds the number of graduates. The industry is growing constantly and as it grows the demand for trained men also increases. As a result the Georgia poultry industry has made available a number of scholarship programs.

INDUSTRY SCHOLARSHIPS. Scholarships of \$250 provided by the poultry industry in Georgia are available in sufficient numbers so that high school graduates who are interested in studying Poultry Husbandry and who can meet the scholastic requirements can be accommodated.

MARBUT FOUNDATION SCHOLARSHIPS. A scholarship fund of \$2000 per year has been provided by the Marbut Foundation, Inc., of Augusta. This will provide one scholarship of \$400 for an outstanding student in each of the four classes.

Inquiries concerning these scholarships should be directed to the Chairman of the Poultry Division and full information will be provided as to the necessary steps to be taken by the applicant. Applications should be received before February 1.

CONCENTRATION IN POULTRY

Science Option

MAJOR: Poultry 371, 373, 379, and an additional 15 hours in Poultry	26 Hours
FIRST MINOR: Any department in the College of Agriculture.....	10 Hours
SECOND MINOR: Any department in the University.....	10 Hours
SCIENCE SELECTIONS: Bacteriology 350, Plant Pathology 358, Poultry 358, Zoology 390, and other 5 hours on the list of approved Science Selections.....	25 Hours
GENERAL ELECTIVES.....	34 Hours

CONCENTRATION IN POULTRY

Administration Option

MAJOR: Poultry 371, 373, 379 and an additional 10 hours in Poultry	26 Hours
AGRICULTURAL ECONOMICS: 304, 408, 467	15 Hours
BUSINESS ADMINISTRATION: 110, 370 and an additional 10 hours selected with departmental approval.....	20 Hours
SCIENCE SELECTIONS: Bacteriology 350, Plant Pathology 358.....	10 Hours
SPECIAL REQUIREMENTS: Poultry 358, Mathematics 356 or Economics 312, Agricultural Economics 469 or Economics 330.....	15 Hours
ELECTIVES: Selected with departmental approval.....	19 Hours

POULTRY

160. POULTRY PRODUCTION. 3 hours. *Mr. Driggers.*

An introductory course designed to provide basic information in poultry husbandry.

358. FUNDAMENTALS OF ANIMAL NUTRITION. Prerequisites: Zoology 226, Chemistry 260. *Mr. Fuller and Mr. Lassiter.*

A study of the fundamental principles of animal nutrition.

370. CULLING AND GRADING OF POULTRY. 3 hours. Prerequisites: Poultry 160 and junior standing or equivalent. *The Staff.*

Instructions and practice of methods of culling laying fowl, and a study of Federal and State grades of shell eggs, live and dressed poultry.

371. COMMERCIAL POULTRY MANAGEMENT. Prerequisite: Poultry 160. *Mr. Noles.*

A detailed study of the management practices and principles used in the business of producing eggs and poultry meat. Emphasis is placed on the factors influencing costs and returns in poultry operations.

372. POULTRY BREEDING. Prerequisite: Plant Pathology 358 or Zoology 401. *Mr. Tindell.*

A consideration of the inheritance of morphological and physiological characters, including meat and egg production. Emphasis is placed on the development of criteria for selection and the development of genetically sound poultry breeding programs.

373. POULTRY HEALTH. Prerequisite: Poultry 160 and Bacteriology 350. Offered to students majoring in poultry and others that are qualified. *Mr. Davis.*

A study of common infectious, parasitic and nutritional diseases of poultry; their cause, diagnosis, prevention and control.

375. POULTRY NUTRITION. Prerequisites: Poultry 160, 358. *Mr. Fuller.*

The application of the principles of nutrition to the avian species. A study is made of the biochemical aspects of the individual nutrients and their supply in terms of feedstuffs and practical poultry diets.

377. PHYSIOLOGY OF HATCHABILITY. Prerequisite: Zoology 226 or equivalent. *Mr. Huston.*

A lecture and problem course in incubation, considering the heredity, nutritional, and environmental factors affecting the development and hatching of chicks. Principles of hatchery management and sanitation.

378. ANATOMY OF THE DOMESTIC FOWL. Prerequisite: Zoology 226 or equivalent. *Mr. Huston.*

A lecture and laboratory study of the gross and microscopic anatomy of the bird with special reference to domestic fowls.

379. POULTRY SEMINAR. 1 hour. Prerequisite: Poultry 160. *The Staff.*

Open to all students in related fields. Attendance without registering for credit is permitted. Topical discussion of current problems and papers of scientific work in poultry to be presented by the students, advance students, faculty members, and guest speakers.

386. (FOOD TECHNOLOGY) POULTRY MARKET PRODUCTS TECHNOLOGY. Prerequisites: Poultry 160 or Food Technology 300 or equivalent. *Mr. May.*

Methods of processing shell, fluid and dried eggs, live and dressed poultry, and packaging and marketing of poultry products.

393. FEED MANUFACTURING. 3 hours. Prerequisites: Poultry 375 or Animal Husbandry 373 or Dairy 392. *Mr. Fuller and Mr. White.*

A survey of the feed manufacturing industry; feed mill design, operation, finance, and organization; utility, space, and labor requirements.

401. AVIAN PHYSIOLOGY. Prerequisites: Chemistry 260, Zoology 390. *Mr. Huston.*

A study of the physiology of circulation, respiration, digestion, metabolism, and the nervous system of the fowl with emphasis on the glands of internal secretion. For advanced undergraduates, graduates, and students in veterinary medicine.

403. STUDIES IN POULTRY NUTRITION. Prerequisites: Poultry 375. *Mr. Fuller.*

A study of the scientific literature in the field of poultry nutrition designed to bring the advanced student abreast of the problems of current interest in this field, with special emphasis on research methods.

405. ADVANCED POULTRY BREEDING. Prerequisites: Plant Pathology 358 or Zoology 401 and Poultry 372. *Mr. Tindell.*

The development of practical poultry breeding programs with a sound genetical background. A study is made of the mode of inheritance and relative heritability of various characteristics of economic importance and criteria for effective selection toward their improvement.

GRADUATE COURSES

802. PROBLEMS IN POULTRY QUALITY CONTROL. Prerequisites: Poultry 371 and 372. *The Staff.*

A course designed to permit the student to make an intensive study of some problem in the field of egg and poultry quality control.

803. EXPERIMENTAL METHODS IN POULTRY NUTRITION. Prerequisites: Chemistry 451, Poultry 358 or 375. One lecture and four laboratory periods. *Mr. Fuller and Mr. Edwards.*

The theory and practice of laboratory procedures employed in nutrition research to include balance studies; microbiological, animal and chemical assays; hematological techniques; calorimetry; and radioisotope techniques.

805. PROBLEMS IN POULTRY GENETICS. Prerequisites: Agronomy 423, Plant Pathology 358 or Zoology 370, Poultry 405. *Mr. Huston.*

Application of genetic theory and principles to poultry breeding. Genetics of sterility, disease resistance, and application of population methods.

806. PHYSIOLOGY OF AVIAN REPRODUCTION. Prerequisites: Poultry 372 and Zoology 390. *Mr. Huston.*

A consideration of the fundamental biological aspects of avian reproduction. Knowledge of the fundamentals and mastery of techniques will be utilized in the working of problems in reproduction in the domestic fowl.

808. PARASITIC DISEASES OF POULTRY. Prerequisite: Zoology 372 or equivalent. *Mr. Reid.*

An intensive study of life histories and ecological factors useful in control of poultry parasites.

809. (VETERINARY HYGIENE) POULTRY DISEASES AND PARASITES. *Mr. Kleckner.*

An intensive course in poultry disease diagnosis. Various diseases will be studied, using cases sent in from the field as materials, and the development of skill in the use of laboratory diagnostic techniques will be emphasized.

810. POULTRY SCIENCE SEMINAR. 1-3 hours. 1 hour per quarter, a maximum of three quarters. *The Staff.*

Weekly meetings with emphasis on current literature, research, and other recent advances in poultry science.

811. PROBLEMS IN POULTRY DISEASES AND PARASITES. *Mr. Boyd, Mr. Kleckner, Mr. Reid, Mr. Richey, and Mr. Schmittle.*

This course allows students to work intensively on approved problems after selection of the specialized area with the appropriate staff member.

930. RESEARCH AND THESIS. 5 to 20 hours. Prerequisites: two or more graduate courses in poultry. *The Staff.*

AGRICULTURAL ENGINEERING

(Barrow Hall, South Campus)

Division Chairman and Head: Driftmier. Staff: Barnett, A. H. Bennett, J. Bennett, R. H. Brown, R. W. Brown, Carreker, Carter, Childs, Cobb, Danner, Drury, Gantt, Harris, Haynes, Henderson, Hendrix, Hudson, Little, McLeroy, Rice, Rodgers, Rogers, Simons, L. L. Smith, R. E. Smith, Turkett, Turner, Walters, H. D. White, Roy White

Agricultural Engineering is the engineering profession which serves agriculture. Working in cooperation with three basic groups—industry, agriculture, and public service—it renders this service in five major fields

—agricultural machines and power; agricultural industries and services; rural housing, farm structures, and utilities; electric power and processing; and soil and water engineering, including drainage, irrigation and land development.

The courses comprising the four-year professional curriculum—Bachelor of Science in Agricultural Engineering—provide well balanced training in the fundamentals of science, engineering, agriculture, the technical fields of agricultural engineering and in the humanistic and social sciences. The department also offers graduate study leading to the degree Master of Science. This graduate program, in addition to advanced courses in science and engineering, places special emphasis upon the methods and practices of research—both basic and applied.

The opportunity to apply engineering principles to agriculture is unlimited. Occupations open to graduates include teaching, research, and extension work with colleges and federal agencies; engineering work in soil conservation; advertising, sales, production, design, and service work with industry; engineering management and development in rural electrification and the mechanical processing of farm products; state and federal public health engineering; appraisal and consultation; and ownership and management of private enterprises.

CURRICULUM IN AGRICULTURAL ENGINEERING

FRESHMAN

FALL		WINTER		SPRING	
	Hours		Hours		Hours
Engr. Drawing, A.En. 104	2	Engr. Drawing, A.En. 105	2	Desc. Geom., A.En. 108	2
Chemistry, Chm. 121	5	Chemistry, Chm. 122	5	Physics, Psc. 120	5
Composition, Eng. 101	5	Composition, Eng. 102	5	Pub. Speaking, Spc. 150	5
Algebra, Math. 100	5	Trigonometry, Mat. 101	5	Anal. Geom., Mat. 210	5
Mil. Sc. 1 or Air Sc. 5	2	Mil. Sci. 1 or Air Sc. 5	2	Mil. Sc. 1 or Air Sc. 5	2
Physical Educ., P.Ed. 1	0	Physical Educ., P.Ed. 1	0	Physical Educ., P.Ed. 1	0
Seminar, A.En. 190	1				
	20		19		19

SOPHOMORE

FALL		WINTER		SPRING	
Surveying, A.En. 211	4	Soils, Agy. 210	5	Fld. Crp. Prod., Agy. 101	3
Calculus, Mat. 254	5	Calculus, Math. 255	5	Dif. Equations, Math. 401	5
*Pol. Science, P.Sc. 101	5	Physics, Psc. 137	5	Physics, Psc. 138	5
Mil. Sc. 2 or Air Sc. 6	2	*Rural Econ., A.Ec. 110	3	*Econ. of Agr., A.Ec. 310	5
Physical Educ., P.Ed. 2	0	Mil. Sc. 2 or Air Sc. 6	2	Mil. Sc. 2 or Air Sc. 6	2
*Amer. History, His. 100	5	Physical Educ., P.Ed. 2	0	Physical Educ., P.Ed. 2	0
	21		20		20

JUNIOR

FALL		WINTER		SPRING	
Statics, A.En. 350	4	Dynamics, A.En. 351	4	Strength of Mat.,	
Thermodynamics,		Ind. Heat Trans.,		A.En. 355	4
A.En. 373	4	A.En. 374	4	Engr. Process, A.En. 375	4
Soil Physics, Agy. 460	5	Fluid Mech., A.En. 356	4	Mat. of Const., A.En. 353	4
Physics, Psc. 229	5	*Western Civil., His. 111	5	*Western Civil., His. 112	5
	18		17		17

SENIOR

FALL		WINTER		SPRING	
D.C. Cir. & Mach.,		A.C. Cir. & Mach.,		Electronics, A.En. 387	3
A.En. 384	3	A.En. 386	4	Mach. Design, A.En. 363	4
Agr'l. Mach., A.En. 361	4	Agr'l. Power, A.En. 362	4	Rural Elec., A.En. 388	4
Soil and Wat. Engr.,		Des. of Hyd. Str.,		Rein. Conc., A.En. 376	4
A.En. 325	4	A.En. 329	4	Engr. Shop, A.En. 202	3
Spec. & Cont., A.En. 393	3	Farm Str. Des.,			
San. & Water Sply.,		A.En. 371	4		
A.En. 372	2				
Seminar, A.En. 392	1				
	17		16		13

Total degree requirements are 210 hours exclusive of the required courses in Military Science 1-2 or Air Science 5-6 and Physical Education 1-2. Junior and Senior students electing Advanced ROTC courses will add 18 hours to the degree requirements.

*An approved sequence may be selected from the following courses in lieu of these courses: Sociology 105, 380, 435; English 121, 122; Philosophy 305, 357, 408; Psychology 101, 371; and Modern Foreign Language, 10 hours.

Admission requirements include the following science courses:

- 1961: Three units of mathematics consisting of algebra and trigonometry, 2 units, and plane geometry, 1 unit.
- 1962: Chemistry or Physics, $\frac{1}{2}$ unit; four units of mathematics consisting of algebra and trigonometry, 3 units; and plane geometry, 1 unit.
- 1963: Chemistry and Physics, $\frac{1}{2}$ unit each, and mathematics the same as for 1962.

AGRICULTURAL ENGINEERING

COURSES FOR B.S.A.E. STUDENTS

104-105. ENGINEERING DRAWING. 4 hours (2 hours a quarter). Two 3-hour laboratory periods only each quarter. *Mr. Hudson and Mr. McLeroy.*

Use of drawing instruments, lettering, detailing, orthographic and pictorial methods of presentation.

108. DESCRIPTIVE GEOMETRY. 2 hours. Two 3-hour laboratory periods only. Prerequisite: Agricultural Engineering 105. *Mr. Smith.*

Representation of geometrical magnitudes by means of points, lines, planes and solids, and their application in the solution of problems.

190. FRESHMAN SEMINAR. 1 hour. *Mr. Driftmier and Staff.*

Agricultural Engineering Survey and Orientation.

202. ENGINEERING SHOP. 3 hours. Two-3-hour laboratory periods. Prerequisite: Agricultural Engineering 108. *Mr. Harris.*

Machine tool work, cold metal work, carpentry, and oxy-acetylene and arc welding.

211. SURVEYING. 4 hours. Three 2-hour laboratory periods. Prerequisites: Mathematics 101 and Agricultural Engineering 105. *Mr. McLeroy.*

Surveying methods, instruments and computations related to field problems in taping, leveling, directions, curves, and land surveying.

325. SOIL AND WATER ENGINEERING. 4 hours. One 3-hour laboratory period. Prerequisite: Agricultural Engineering 356. *Mr. Cobb.*

Engineering aspects of soil erosion and its control; principles, methods and design of drainage and irrigation systems.

329. DESIGN OF HYDRAULIC STRUCTURES. 4 hours. One 3-hour laboratory period. Prerequisite: Agricultural Engineering 325 and 356. *Mr. Cobb.*

Design of drainage and irrigation systems, flood water retarding structures, and stream channels.

350. STATICS OF ENGINEERING. 4 hours. Prerequisites: Mathematics 255 and Physics 137. *Mr. Hudson.*

Force systems, resultants, equilibrium, friction, centroids, and moments of inertia.

351. DYNAMICS OF ENGINEERING. 4 hours. Prerequisite: Agricultural Engineering 350. *Mr. Brown.*

A study of bodies in motion; unbalanced force systems resulting in translation, rotation, and plane motion; moments of inertia; work and energy; and free vibrations.

353. MATERIALS OF CONSTRUCTION. 4 hours. One 3-hour laboratory period. Prerequisite: Agricultural Engineering 350. *Mr. Hudson.*

Manufacture, properties, use, and application of materials for engineering construction.

355. STRENGTH OF MATERIALS. 4 hours. Prerequisite: Agricultural Engineering 351. *Mr. Hudson.*

Elements of stress analysis, resistance, and design as applied to engineering materials and structures.

356. FLUID MECHANICS. 4 hours. Prerequisite: Mathematics 255. *Mr. Cobb.*

Elements of engineering applications of the laws of fluid behavior; statics, kinematics, and kinetics of fluids.

361. AGRICULTURAL MACHINERY. 4 hours. One 3-hour laboratory period. Prerequisite: Agricultural Engineering 351. *Mr. Rice.*

Agricultural production machinery design, features, costs, performance, maintenance, and field testing.

362. AGRICULTURAL POWER. 4 hours. One 3-hour laboratory period. Prerequisite: Agricultural Engineering 373. *Mr. Rice.*

Thermodynamic principles, design, operation, rating, testing, and application of power units for agricultural uses.

363. MACHINE DESIGN. 4 hours. Two 3-hour laboratory periods. Prerequisite: Agricultural Engineering 355. *Mr. Rice.*

Application of principles of mechanics, physical properties of materials, and shop processes to the design of machine parts.

371. FARM STRUCTURES DESIGN. 4 hours. Two 3-hour laboratory periods. Prerequisites: Agricultural Engineering 353 and 355. *Mr. Hudson.*

Environmental, space, and structural design of farm structures; cost estimates and specifications.

372. SANITATION AND WATER SUPPLY. 2 hours. Prerequisite: Agricultural Engineering 356. *Mr. Hudson.*

Development, storage, distribution, and purification of rural water supplies; and the collection and disposal of farm and rural wastes.

373. THERMODYNAMICS. 4 hours. Prerequisite: Mathematics 254 and Physics 138. *Mr. Rodgers.*

The properties and fundamental equations of gases and vapors. Thermodynamics of heat cycles, compressors, and engines.

374. INDUSTRIAL HEAT TRANSFER. 4 hours. One 3-hour laboratory period. Prerequisite: Agricultural Engineering 373. *Mr. Rodgers.*

Theory of heat transmission by conduction, radiation and convection, and the solution of engineering problems relating thereto.

375. ENGINEERING PROCESSES, DESIGN, AND ANALYSIS. 4 hours. One 3-hour laboratory period. Prerequisite: Agricultural Engineering 374. *Mr. Rodgers.*

Engineering principles and design of dehydration, drying, refrigeration, reducing, blending, and processing systems for agricultural crops and products.

376. REINFORCED CONCRETE CONSTRUCTION. 4 hours. One 3-hour laboratory period. Prerequisite: Agricultural Engineering 355 and 371. *Mr. Hudson.*

Mechanics of reinforced concrete. Design of floor systems, beams, columns, footings, and retaining walls.

384. DIRECT CURRENT CIRCUITS AND MACHINES. 4 hours. One 3-hour laboratory period. Prerequisites: Mathematics 255 and Physics 239. *Mr. Brown.*

Fundamentals of electric and magnetic circuits, networks and network theorems, and the theory and application of DC generators and motors.

386. ALTERNATING CURRENT CIRCUITS AND MACHINES. 4 hours. One 3-hour laboratory period. Prerequisite: Agricultural Engineering 384. *Mr. Brown.*

Single phase and polyphase alternating current circuit theory and a detailed study of the operating characteristics of transformers, alternators, polyphase motors and single phase motors.

387. ENGINEERING ELECTRONICS. 3 hours. One 3-hour laboratory period. Prerequisite: Agricultural Engineering 386. *Mr. Brown.*

A study of electronic devices, including transistors, with particular emphasis on the design of circuits for small signal amplifiers, relays, electronic timers, photoelectric devices, and gas-filled tubes.

388. RURAL ELECTRIFICATION. 4 hours. One 3-hour laboratory period. Prerequisite: Agricultural Engineering 386. *Mr. Brown.*

A study of the factors influencing the design and selection of electric equipment, circuits, and devices which can be advantageously used in agricultural enterprises for light, heat, power, control, radiation and measurement.

392. SENIOR SEMINAR. 1 hour. *Mr. Driftmier and Staff.*

Professional duties, procedures, and ethics of the engineer.

393. ENGINEERING SPECIFICATIONS AND CONTRACTS. 3 hours. Prerequisite: Senior standing. *Mr. Hudson.*

Basic principles of contracts and contractual relations; preparation of specifications and other material which form an essential part of the contract documents.

COURSES FOR NON-ENGINEERING STUDENTS

111. SURVEYING. Three 2-hour laboratory periods. Prerequisites: Mathematics 101. *Mr. McLeroy.*

Surveying methods, instruments, and computations related to field problems in taping, leveling, directions, curves, and land surveying.

203. FARM SHOP. 6 hours. Four 3-hour laboratory periods only. *Mr. Harris.*

Farm construction methods, working drawings, selection and use of tools and equipment, tool conditioning, materials, carpentry, concrete, painting and glazing, cold metal work, and oxy-acetylene and arc welding.

207. ADVANCED FARM SHOP. 3 hours. Prerequisite: Agricultural Engineering 203. *Mr. Harris.*

Special farm construction methods — soldering and sheet metal work, pipe fitting, farm fences, home and farm shop, power-operated shop equipment, advanced carpentry.

209. ELEMENTS OF HEATING AND REFRIGERATION. *Mr. Hudson and Mr. Rodgers.*

Basic principles of heating and refrigeration; characteristics and selection of systems; insulation; controls; load calculations.

220. DRAINAGE, IRRIGATION, AND EROSION CONTROL. 3 hours. One 3-hour laboratory period. *Mr. Cobb.*

Principles and methods of drainage, irrigation, and erosion control systems.

228. SOIL AND WATER TECHNOLOGY. One 3-hour laboratory period. Prerequisite: Agricultural Engineering 220. *Mr. Cobb.*

Planning and design of water disposal, drainage, and irrigation systems and the study of research results as applied to conservation farming.

230. FOOD PLANT ENGINEERING. One 3-hour laboratory period. Prerequisite: Agricultural Engineering 209. *Mr. Rodgers.*

Food plant design and equipment layout; elements of fluid mechanics; transport of solids, liquids, slurries, and semi-solids; mixing, separation, filtration, extrusion, and reduction; homogenizing, pasteurizing and evaporation.

260. FARM POWER MACHINERY. 3 hours. One 3-hour laboratory period. *Mr. Rice.*

The operation, care, repair, and selection of farm machinery and tractors for use on farms.

265. FARM BUILDINGS AND EQUIPMENT. 3 hours. *Mr. Harris* and *Mr. McLeroy*.

A study of farm buildings, equipment, and facilities with emphasis on space, material, sanitary, managerial, and cost requirements.

280. FARM ELECTRIFICATION. 3 hours. One 3-hour laboratory period. Prerequisite: Physics 120. *Mr. Brown* and *Mr. Smith*.

Applications of electricity to agriculture; wiring systems for farm buildings; selecting, using, and controlling electrically operated equipment in farming operations.

GRADUATE COURSES

701. AGRICULTURAL ENGINEERING APPLICATIONS. Prerequisite: Agricultural Engineering 203, and Education 336, or Agricultural Economics 301, or equivalent. (For Agricultural students only). *Mr. Harris*.

The application of engineering techniques to agricultural production and utilization practices, with emphasis on the organization, management, and physical facilities for farm mechanics work on farms, in secondary schools, and in related farm occupations.

702. ADVANCED ENGINEERING APPLICATIONS. Prerequisite: Agricultural Engineering 701. (For Agricultural students only). *Mr. Harris*.

A continuation of the farm mechanics improvement plans and procedures developed in Agricultural Engineering 701 with emphasis on economic limitations and extension of engineering techniques and practices.

804. SPECIAL ELECTRICAL PROBLEMS. Prerequisite: Agricultural Engineering 289 or equivalent. *Mr. Brown*.

Problems dealing with electrical circuits, apparatus, and systems associated with electricity in agriculture.

805. AGRICULTURAL STRUCTURES DESIGN. Prerequisite: Agricultural Engineering 271 and 274 or equivalent. *Mr. Hudson*.

Insulation, ventilation, heat and vapor relationships; structural theory and design.

806. ADVANCED FARM POWER AND EQUIPMENT. Prerequisite: Agricultural Engineering 261, 262, and 273, or equivalent. *Mr. Rice*.

Special problems dealing with design, development, and performance testing of agricultural tractors and machines.

807. SOIL AND WATER CONSERVATION. Prerequisite: Agricultural Engineering 225 and 256, or equivalent. *Mr. Cobb*.

Advanced studies of water control and utilization through drainage, irrigation, and conservation engineering.

809. INDUSTRIAL ELECTRONICS. Prerequisites: Mathematics 255, Physics 229, Agricultural Engineering 284, 286. *Mr. Brown*.

Electronic circuits, tubes and transistors with special emphasis on the design of circuits for use with transducers of light, moisture, heat, sound, and mechanical motion. Electronic instruments and control systems are studied with a view toward development of original thinking on methods of control and instrumentation.

810. ADVANCED STRESS ANALYSIS. Prerequisites: Mathematics 255, Agricultural Engineering 253, 255. *Mr. Rice*.

The use of electrical resistance strain gauges, brittle lacquers, photo-elastic methods, and electronic equipment for stress analysis determinations not adaptable to mathematical solutions.

811. PROCESS ENGINEERING. Prerequisite: Agricultural Engineering 273 and 275 or equivalent. *Mr. White* and *Mr. Rodgers*.

A study of the engineering aspects of agricultural processing with emphasis on plant layout, equipment, process control, and materials handling.

813. RESEARCH METHODS AND INSTRUMENTATION. Prerequisite: Graduate status. *Mr. Brown*.

Research problems, design and execution of experiments, and the principles and application of scientific apparatus and equipment used in research.

930. THESIS. 5 to 50 hours.

DEPARTMENT OF LANDSCAPE ARCHITECTURE

(Landscape Architecture Building, North Campus)

Division Chairman and Head: Owens. Staff: Bochkor, Burggraf,
Dobereiner, Smith.

Landscape Architecture has been defined in its simplest terms as the art of adapting land to human use and enjoyment. It is, however, at once both a science as well as an art and also a service profession.

The practicing Landscape Architect must have a thorough knowledge of the materials of his profession which are earth, water, construction materials and plants. His tools are artistic techniques used in transmitting ideas, fundamental engineering processes, basic horticultural skills, and an understanding of and sympathy with the dynamics of the natural environment. But in the end, the product of his work must be an artistic creation, aesthetically as well as functionally satisfying in order to be worthy of the name.

In this time of expanding scale of land planning operations, when city and regional planning and redevelopment are becoming ever more important in everyday life, the Landscape Architect finds that he must fit into a team, and, in order to do this, he must have some understanding of and sympathy with members of other professions such as architects, artists, engineers, planners, sociologists, economists, and public administrators. He should be, in other words, both thoroughly competent in his own professional field, and also able to take his place as a well-rounded member of a community.

The studies offered in Landscape Architecture at the University of Georgia are built around a curriculum designed to train young men and women for professional practice. This program is accredited by the American Society of Landscape Architecture in four years plus one quarter. The Department offers two other curricula, one in Recreation Planning in cooperation with the School of Forestry, and another specializing in the smaller problems of Landscape Operations.

A series of formal and naturalistic developments, known as the Founders Memorial Garden, is adjacent to the Landscape Architecture Building. This affords excellent laboratory facilities for the students.

TRIPS

Two field trips are required to be taken on alternate years by junior and senior Landscape Architecture majors to Flat Rock and Asheville, N. C., Smoky Mountains National Park, Thomasville, Georgia, and points in Florida for purposes of study and observation. Two week-end trips will be made to Augusta, Atlanta, and LaGrange, Georgia, and to Aiken and Charleston, South Carolina. Each trip is made at the expense of the student.

PROGRAMS OF INSTRUCTION

1. GENERAL PROGRAM IN LANDSCAPE ARCHITECTURE. This program, leading to the degree of Bachelor of Landscape Architecture, is intended to fit students for the professional practice of Landscape Architecture.

2. PROGRAM IN RECREATIONAL PLANNING. This is a program leading to the degree of Bachelor of Science in Landscape Architecture devoted particularly to the design and management of large recreational areas and forest preserves. Following the close of the junior year a summer camp covering a period of ten weeks is required as a prerequisite for graduation.

3. PROGRAM IN LANDSCAPE OPERATION. This program for the degree of Bachelor of Science in Landscape Architecture is set up to give intensive study of the problems of design, management, and maintenance of home grounds, estates and parks.

THE FOLLOWING CORE CURRICULUM IS REQUIRED OF ALL STUDENTS MAJORING IN LANDSCAPE ARCHITECTURE

FRESHMAN AND SOPHOMORE YEARS

Hours		Hours	
Art 120	5	English 101-102	10
Land. Arch. 255-256.....	10	Physical Science 101	5
Land. Arch. 272.....	5	Horticulture 101	3
Botany 121-122.....	10	Art Elective	5
Math. 101	5	Land. Arch. 113-114	10
Agricultural Eng. 111	5	Land. Arch. 101	5
Land. Arch. 112	5	Land. Arch. 350-351	10
Military Science 1 or Air Science 5 (for men)	6	Military Science 2 or Air Science 6 (for men)	6
or Physical Education 1 (for women)	5	or Physical Education 2 (for women)	5
	55-56		53-54

SUMMER TERM

History 111-112	10
Political Science 101	5

PRACTICAL EXPERIENCE

1 Summer	1
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FIELD TRIPS

4 at ½ hour each	2
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BACHELOR OF LANDSCAPE ARCHITECTURE

I. GENERAL PROGRAM

JUNIOR AND SENIOR YEARS

Hours		Hours	
Land. Arch. 315-316-317	15	Land. Arch. 318-319-355	15
Land. Arch. 302.....	5	Land. Arch. 303	5
English 121	5	Art Elective	5
Chem. 121 or Geol. 104	5	Land. Arch. 353	5
Land. Arch. 340	3	Land. Arch. 354	5
Land. Arch. 352	5	Land. Arch. 358	5
Land. Arch. 357	5	Land. Arch. 360	5
	43		45

BACHELOR OF SCIENCE IN LANDSCAPE ARCHITECTURE

2. RECREATION PLANNING

JUNIOR AND SENIOR YEARS

	Hours		Hours
Land. Arch. 315, 316, 317.....	15	Land. Arch. 318, 319, 355.....	15
Land. Arch. 350, 357, 358.....	15	Land. Arch. 353	5
*Electives	10	Land. Arch. 360, 390.....	8
Art 241	5	*Electives	15
	—		—
	45		43

3. LANDSCAPE OPERATION

JUNIOR AND SENIOR YEARS

	Hours		Hours
Land. Arch. 315, 316, 317.....	15	Land. Arch. 321	3
English 121	5	Land. Arch. 354, 364.....	10
Chem. 121 or Geol. 104	5	Land. Arch. 355	5
Land. Arch. 102	5	Art 389 or Plant Path. 353	5
Land. Arch. 357	5	Art 390 or Ent. 374	5
Art 241	5	*Electives	12
*Electives	5	Land. Arch. 352	5
	—		—
	45		45

LANDSCAPE ARCHITECTURE

101. FUNDAMENTALS OF ARCHITECTURE. Five laboratory periods. *Mr. Dobereiner.*

Lectures on organization of the living functions and their expression in plan and elevation together with studies in orientation and site planning. Exercises in dimensional design.

112. INTRODUCTORY LANDSCAPE DESIGN. Five Laboratory periods. *Mr. Burggraf.*

Application of theories of design to small properties. Introduction to rendering.

113. INTRODUCTORY LANDSCAPE DESIGN. Five laboratory periods. *Mr. Bochkor.*

A continuation of the study of small properties introducing elements of grading and drainage as they influence design.

114. INTRODUCTORY LANDSCAPE DESIGN. Five laboratory periods. *Mr. Bochkor.*

Continuing the study of small properties with an analysis of the design relationship of indoor and outdoor aspects of contemporary living.

255. ARCHITECTURAL DRAFTING. Five laboratory periods. *The Staff.*

A condensed course in principles of orthographic projection, isometric and perspective. Emphasis is placed on use of instruments, lettering and problems in design.

256. ARCHITECTURAL PROJECTIONS. Five laboratory periods. Prerequisite: Landscape Architecture 255. *Mr. Dobereiner.*

Shades and shadows and presentation drawings in isometric projection and perspective.

272. HISTORY OF LANDSCAPE DESIGN. Five lecture periods. *Mr. Owens.*

Deals with the gradual development of the art of landscape design from the earliest efforts to the present day, laying special stress upon the transition of styles and the development of the naturalistic type.

*Suggested electives: Business Administration 110, Horticulture 353, 362 and 407. Substitutions subject to approval by Department Head.

302. INTRODUCTORY ARCHITECTURAL DESIGN. Five Laboratory periods. *Mr. Dobereiner.*

Study of small buildings commonly dealt with in landscape design and their appropriate expression. Elementary problems in siting.

303. ARCHITECTURAL DESIGN. Five laboratory periods. *Mr. Dobereiner.*

Continuation of design problems with analysis of larger architectural elements, especially organization of public buildings in relation to landscape factors of site and orientation.

313. LANDSCAPE DESIGN. Five laboratory periods. Especially designed for students not majoring in landscape architecture. *The Staff.*

Problems in design involving the designing and rendering of plans for gardens, residential properties, grounds of public buildings and parks.

315. INTERMEDIATE LANDSCAPE DESIGN. Four laboratory periods and one lecture. Prerequisite: Landscape Architecture 112. *Mr. Bochkor.*

Application of design theory to residential properties. Original problems in design, rendering, and model making.

316. INTERMEDIATE LANDSCAPE DESIGN. Four laboratory periods and one lecture. Prerequisite: Landscape Architecture 315. *Mr. Burggraf.*

Solution of original problems in public and semi-public properties and recreational facilities.

317. INTERMEDIATE LANDSCAPE DESIGN. Four laboratory periods and one lecture. Prerequisite: Landscape Architecture 316. *Mr. Bochkor.*

Solution of original problems in public and semi-public properties such as cemeteries, school grounds, subdivisions, and golf courses.

318. ADVANCED LANDSCAPE DESIGN. Four laboratory periods and one lecture. Prerequisite: Landscape Architecture 317. *Mr. Burggraf.*

A continuation of intermediate landscape design involving complex problems.

319. ADVANCED LANDSCAPE DESIGN. Five laboratory periods. *Mr. Bochkor.*

A continuation of Landscape Architecture 318 with original design problems in large landscape developments.

321. (HORTICULTURE) THE MAINTENANCE OF ORNAMENTAL PLANTINGS AND LANDSCAPE MANAGEMENT. 3 hours.

340. PROFESSIONAL PRACTICE IN LANDSCAPE ARCHITECTURE. 3 hours. Three lectures. *Mr. Burggraf.*

Professional practice and ethics; contracts, reports and specifications.

350. ELEMENTARY LANDSCAPE CONSTRUCTION. Prerequisites: Agricultural Engineering 111, Mathematics 101 or equivalent. *Mr. Burggraf.*

Materials of landscape construction, their characteristics and uses; elementary grading, drainage and simple construction details.

351. PLANT MATERIALS. *Mr. Burggraf.*

A study of plant materials used in landscape architecture, dealing with trees, shrubs and vines.

352. PLANT MATERIALS. Three laboratory periods. *Mr. Owens.*

A study of plant materials used in landscape architecture, dealing with flowers, perennials, and grasses.

353. CITY PLANNING. Three laboratory periods and two lectures. *Mr. Dobereiner.*

Background course in city planning, covering the history and bibliography of the subject, and introducing the student to modern trends in planning. Designed as a foundation for further study of professional planning, the course is also an elective intended to provide the layman with an informed understanding of civic problems.

354. PLANTING DESIGN. Five lecture or laboratory periods. Prerequisites: Landscape Architecture 317, 351, and 353. *Mr. Owens.*

Deals with problems which aim to train the student to produce with plants and other landscape materials practical and esthetically effective results.

355. LANDSCAPE THESIS. Five lectures or laboratory periods. *Mr. Owens and Staff.*

A problem in designing a property will be assigned; completed plans including general plan, staking and grading plans, construction and planting plans. Specifications and estimates will be required. This course will serve as a comprehensive examination.

357. LANDSCAPE ENGINEERING. Four laboratory periods and one lecture. Prerequisite: Landscape Architecture 350. *Mr. Burggraf.*

Design and construction of pavements, structures, drainage and utilities, calculation of quantities.

358. ADVANCED LANDSCAPE CONSTRUCTION. *Mr. Burggraf.*

Advanced earthwork, road and highway engineering, preparing master plans and details, estimating and preparing contracts and specifications for landscape construction.

360. HISTORY OF ARCHITECTURE. *Mr. Dobereiner.*

Principal periods of architectural history. Acquaints departmental majors with architectural developments which influenced landscape design, but is also open to other students and laymen interested in the backgrounds of the various "styles" in buildings and furnishings.

364. PLANTING DESIGN. One lecture and four laboratory periods. Prerequisite: Landscape Architecture 354. *Mr. Owens.*

A continuation of Landscape Architecture 354. Emphasis is placed on the design and planting of perennial gardens.

370. HISTORY AND APPRECIATION OF LANDSCAPE ARCHITECTURE. Five lectures. Especially designed as an elective for students not majoring in landscape architecture. *Mr. Owens.*

Elements of landscape architecture. The history of gardening, with particular attention devoted to its development in the South, and the application of landscape design to outdoor areas, including the small home, park, cemetery, farmstead, estate.

390. RECREATIONAL PLANNING. 3 hours. *Mr. Burggraf.*

The study of administration, organization and operation of parks and recreation areas; theory of play; the study and formulation of master, project and unit recreation plans.

GRADUATE COURSES

701, 702, 703, 704. SPECIAL PROBLEMS IN LANDSCAPE ARCHITECTURE. 5 to 20 hours. Prerequisite: a minimum of 10 quarter hours of senior division work in design, and consent of instructor. *Mr. Owens.*

Intensive studies in special aspects of Landscape Architecture designed to explore applications in such fields as park and recreation developments, planting design, theory and history, landscape construction, rural and urban land use studies and development. The courses will consist primarily of readings and seminar discussions with projects in drawing and model building. The assigned projects will be adjusted to the needs and interests of the individual student.

THE GEORGE FOSTER PEABODY SCHOOL OF FORESTRY

ALLYN MARSH HERRICK, B.S., M.F., Ph.D., *Dean*

HISTORY

The School of Forestry was first established early in 1906 through the interest and generosity of Mr. George Foster Peabody who endowed it for a three-year period. It is the oldest forestry school in the South and one of the oldest in the country. In 1908, the School became a Division of the College of Agriculture and remained so for about twenty-seven years. In June 1935, by action of the Board of Regents of the University System, the George Foster Peabody School of Forestry was reestablished.

The many graduates of the School have played a very important part in the development of the forestry program in the South, serving in all phases of forestry work.

The School is ideally situated for its important role as a regional school. Its location in the State makes it not only easily accessible to residents of Georgia but to those of neighboring states. It is also well located as to accessibility to the three major forest regions of the Southeastern United States: Mountain; Piedmont; and Coastal Plain.

BUILDING, EQUIPMENT, AND FOREST PROPERTIES

The School is housed in its own modern building. The three-storied main building contains classrooms, general and research laboratories, a library containing 15,000 volumes and a reading room with the latest forestry periodicals available, a large auditorium, and offices.

Two large wings are attached to the main building, one containing additional staff offices, a photographic darkroom, and wildlife, radioisotope, genetics, soils and timber-testing laboratories. The other wing contains a complete sawmill, edger, trimmer, planer, and well-equipped wood-working shop. A modern dry kiln is located adjacent to the utilization wing. Three greenhouses for research and instruction are likewise available.

Ample surveying, mapping, cruising, silvicultural, forest protection and other equipment is owned by the School. Calculating machines, and photo-interpretation devices are used regularly in the instructional program, and the Statistical Institute provides additional facilities in the way of high-speed electronic computers. Specialized research equipment is available for student and faculty use.

The forest properties owned by the University are managed by the School of Forestry. Two of these are located on land adjacent to the Campus. The Oconee Forest, a typical Piedmont forest area of 120 acres, is used for laboratory work in silviculture, mensuration, and utilization. The Denmark Forest of 145 acres, adjoining the Oconee Forest, is used for experimental work in forest plantings. Whitehall Forest, located approximately five miles from the campus and comprising some 750 acres, was deeded to the University by the Resettlement Administration. A series of

planting demonstrations has been established on this forest. The U. S. Forest Service has erected an experimental charcoal kiln on this property, established a series of experimental plantings and has started a fence-post testing ground for posts treated by various methods.

The Watson Springs Forest is located in Greene County and was given to the University by Colonel J. D. Watson. It is about 25 miles from Athens and contains some 600 acres. Experimental plantings in hardwoods and outplantings for genetics studies have been started. The Hardman Memorial Forest of 500 acres is located 12 miles north of Athens, in Jackson County and was deeded to the University as a memorial to the late Governor Hardman. Problems in planting and in study of species not commonly planted are being carried out on this Forest. The area is also used as a field laboratory for Seniors.

A forest-tree nursery, the oldest publicly-owned nursery in Georgia and probably the oldest in the South, is located in Oconee Forest. It is used primarily for instruction and research in forest-tree improvement by both the School and the U. S. Forest Service. A well-equipped field house and storage buildings are located at the nursery.

One segment of the Southeastern Forest Experiment Station, U. S. Forest Service—the Athens Research Center—is headquartered in the Forestry Building. The resident staff in Athens numbers nine specialists in various phases of forestry research. These men hold faculty status. The Georgia Forest Research Council, which is headquartered in Macon, supports several research workers on five projects at the School of Forestry. Cooperation among the School, the Research Council, the Georgia Forestry Commission and the U. S. Forest Service is exemplary.

OPPORTUNITIES FOR CONCENTRATION

The Forestry curriculum represents a minimum core of general and professional course work required of all undergraduate students. Beyond this core there exists ample opportunity for concentration in any phase of forest resource management: timber, wildlife, range, water, or recreation. Through careful choice of elective courses a student of forestry may thus concentrate on a certain phase of land management.

Likewise, students are able to obtain a major in Business Administration, Journalism, or some departments of the College of Arts and Sciences in addition to the major in forestry, with very little extra time at the University.

FIELD WORK IN FORESTRY

Field work is a very important phase of a well-rounded forestry education. In addition to field laboratories in connection with the various courses taught at the University, several field trips to other sections of the State are required. Also as a part of the regular program of work, a required camp is held during the summer quarter following the sophomore year.

DEGREES OFFERED BY SCHOOL OF FORESTRY

The School of Forestry offers the degree of Bachelor of Science in Forestry. Through the Graduate School the degrees of Master of Science and Master of Forestry are offered. The Doctor of Philosophy degree in the sciences is also available to forestry graduates.

Students planning to major in Forestry should enter at the beginning of the freshman year if possible. Those who plan to transfer into the School of Forestry should note carefully the subjects which are prerequisite to the required Summer Camp and also those subjects for which the camp work is a prerequisite. Most students will find it necessary to transfer to the School no later than the beginning of the fifth quarter so as to meet camp requirements during the first summer in residence at the University.

SPECIAL SCHOLARSHIP REQUIREMENTS

High school students who plan on majoring in forestry in the University will do well to stress English, mathematics, and the sciences in the high school program. In addition to the general University requirements relative to scholarship, the following requirements must be met by all Forestry students:

1. Any student already enrolled in or endeavoring to transfer into the School of Forestry who fails to earn a minimum passing score on the Mathematics Test of the Sophomore Comprehensive Examination will not be permitted to register for additional professional forestry courses until he has satisfactorily completed further formal course work in the Department of Mathematics.

2. At least a grade of C must be earned by students in all *required forestry courses* and approved substitutes, before credit for the courses will be given toward graduation.

FEES AND EXPENSES

A special fee of \$10 is required for Forestry Summer Camp and a deposit of \$85 to cover the probable cost of board and lodging must be made prior to the opening of Camp. Any unused portion of the \$85 remaining at the close of Camp is refunded to the student.

Field trips form a part of certain courses in the junior and senior years and the expenses of these trips, usually about \$20 per year, must be borne by the student. The amount necessary for books and supplies will vary from \$25 to \$60 per year.

ORGANIZATIONS

Xi Sigma Pi, the national honorary forestry fraternity, has an active chapter in the School of Forestry. The purpose of this fraternity is to honor those students who do outstanding scholastic work, to promote fraternal relations among earnest workers, and to work for the upbuilding of the profession of forestry.

Alpha Zeta, a national honorary fraternity in agriculture and allied fields, is open to students in the School of Forestry.

The Forestry Club, open to all students in the School, sponsors biweekly programs of special interest to the student body. The club also sponsors an annual field day, a banquet, a dance and the *Cypress Knee*, the Forestry School's annual publication. The Forestry Wives' Club, also known as the Lumber Jills, is an organization which encourages a fuller understanding of the forestry profession on the part of the wives of forestry students.

SCHOLARSHIPS AND LOAN FUNDS

THE EARL JENKINS MEMORIAL AWARD is given to a member of the junior class in Forestry who excels in scholarship, character, and interest in forestry ideals. This award honors the memory of Earl Jenkins, class of 1942, who was killed in action in World War II, and is given by his sister.

THE XI SIGMA PI-FORESTRY CLUB AWARD is given to the outstanding freshman.

THE DUPREE BARRETT LOAN FUND, given in memory of Dupree Barrett, for many years Extension Forester in Georgia, is open to junior or senior students in the School of Forestry.

THE MAXWELL B. THURMOND LOAN FUND, given in memory of Lt. Col. Maxwell B. Thurmond, class of 1941, is open to students in the School of Forestry.

THE ST. REGIS PAPER COMPANY awards an annual scholarship to an outstanding Junior in the School of Forestry. The scholarship, amounting to \$800, is renewable for the Senior year. It is based on scholarship, leadership, and interest in the forestry profession.

CONTINENTAL CAN COMPANY, INC. OF SAVANNAH AND AUGUSTA awards annual \$1,000 scholarships to incoming freshmen, recipients to come from the wood producing area of that company. The students finally selected are carefully screened by two different committees, selection being based on scholarship, leadership, and personality.

THE RAYONIER CORPORATION awards a scholarship of \$500 to the outstanding senior in the School. The selection is made by the staff of the School and is based on scholarship, leadership, and personality.

THE HOMELITE CORPORATION of New York, manufacturers of chain saws, awards a scholarship of \$500 annually, the recipient being selected by the staff of the school.

THE INLAND CONTAINER CORPORATION awards a scholarship of \$800 per year for four years to children of employees of the Corporation. These scholarships are not restricted to students of Forestry.

REQUIREMENTS FOR GRADUATION

A total of 218 hours, in addition to Military or Air Science and Physical Education, is required for graduation.

Examinations on the history of the United States and Georgia are required of all persons receiving a degree from the University unless exempted by credit in courses dealing with this history. Courses approved for this purpose are History 100 (5 hours) and 351-352 (10 hours).

REQUIRED CURRICULUM FOR THE DEGREE OF
BACHELOR OF SCIENCE IN FORESTRY

FRESHMAN YEAR		SOPHOMORE YEAR	
	Hours		Hours
Botany 121-122	10	Ag. Engineering 111	
Chemistry 121-122	10	(Surveying)	5
English 101-102	10	Agronomy 210 (Prin. of Soils)	5
Forestry 191-192-193		Business Adm. 108 (Business	
(Orientation)	3	Communications)	4
Math 100-101 (Algebra and		Business Adm. 109 (Business	
Trigonometry)	10	and Prof. Speech)	4
Political Science 101	5	Forestry 201-202 (Dendrology)	6
Military Science 1 or		Forestry 203 (Silvics)	5
Air Science 5	6	Geography 121 (Landforms) or	
Physical Education 1	0	Zoology 226 (Vert. Zoology)*	5
	54	Physics 127-128 or 137-138	10
		Statistics 200	3
		Military 2 or	
		Air Science 6	6
		Physical Education 2	0
			53

SUMMER CAMP

	Hours
Forestry 301 (Silvicultural Practices)	5
Forestry 344 (Forest Measurements)	3
Forestry 345 (Forest Engineering)	4
Forestry 346 (Forest Practicum)	3
	15

JUNIOR YEAR		SENIOR YEAR	
	Hours		Hours
Ag. Economics 310 (Applied		Forestry 304 (Regional	
Economics of Ag.)	5	Silviculture)	3
Forestry 302 (Applied		Forestry 322 (Forest Products) ..	2
Silviculture)	5	Forestry 323 (Logging)	2
Forestry 321 (Wood Anat.		Forestry 324 (Lumber Mfr.) or	
and Identification)	3	Forestry 561 (Wildlife Mgt.)*	3
Forestry 347 (Mensuration)	5	Forestry 372 (Economics of	
Forestry 361 (Game Management) 3		Forestry)	5
Forest Protection:		Forest Management:	
Forestry 382 (Insects)	3	Forestry 541 (Foundations)	5
Forestry 383 (Diseases)	3	Forestry 542 (Finance)	5
Forestry 384 (Fire)	3	Forestry 591 (Administration)	3
Forestry 421 (Physical		Geography 420 (Photogrammetry) 5	
Properties of Wood)	2	Electives**	21
Electives**	22		54
	54		

* Students concentrating in wildlife management take alternate course.

** Electives transferred to the University of Georgia must be approved by the Dean of the School of Forestry. Normal residence requirements are 123 hours and the last seven quarters (including Camp) immediately preceding graduation.

A minimum of 8 hours of electives will be selected from courses in each of three categories:

Group A. Technical Forestry electives. A maximum of 15 hours may be selected from this group.

Group B. Non-forestry technical electives. Advanced Military or Air Science courses are considered in this group.

Group C. Non-technical electives.

Forestry electives are to be found in the pages immediately following.

Lists of suggested electives in Groups B and C will be provided.

Each student will be counseled by a member of the faculty regarding electives prior to the beginning of the Junior year.

COURSES OFFERED IN SCHOOL OF FORESTRY

All classes meet in Forestry Building except as noted.

The University reserves the right to withdraw any course for which the registration is not sufficient and to offer courses not here listed should sufficient demand arise and teaching facilities and personnel be available.

Unless otherwise indicated, all courses will meet five hours a week and carry five hours credit.

191. FIELDS OF FORESTRY. 1 hour. *Mr. Herrick.*

Orientation with respect to the several fields of the forestry profession.

192. DEVELOPMENT OF FORESTRY. 1 hour. *Mr. Patterson.*

Historical development of forestry in America.

193. FORESTRY CALCULATIONS. 1 hour. *Mr. Bamping.*

Mathematical and graphic solutions of elementary problems.

301. SILVICULTURAL PRACTICES. 5 hours. Fifteen days at Summer periods. Prerequisite: Ten hours of botany. *Mr. Reines.*

Identification, classification, silvical requirements, and distribution of the more important forest trees among the Angiosperms.

202. DENDROLOGY: CONIFERS. 3 hours. Two 3 hour lecture-laboratory periods. Prerequisite: Ten hours of botany. *Mr. Bishop.*

Identification, classification, silvical requirements, and distribution of the more important forest trees among the Gymnosperms.

203. SILVICS. Prerequisites: Ten hours of botany. *Mr. Jackson.*

Fundamental principles of forest physiology and ecology; effects of the various factors of site upon the characteristics of growth and development of forest stands; forest classification.

FORESTRY SUMMER CAMP COURSES

301. SILVICULTURAL PRACTICES. 5 hours. Fifteen days at Summer Camp. Prerequisites: Agronomy 210, Forestry 201, 202 and 203. *Mr. Bishop and Staff.*

Ecological relationships among forest plants and animals; forest types; forest fire use; timber marking and harvesting.

344. ELEMENTS OF FOREST MEASUREMENTS. 3 hours. Nine days at Summer Camp. Prerequisite: Mathematics 101. *Mr. Herrick and Staff.*

Field measurements of trees, major forest products, and timber stands; log scaling, timber cruising, and growth study.

345. FOREST ENGINEERING. 4 hours. Twelve days at Summer Camp. Prerequisite: Agricultural Engineering 111, or equivalent. *Mr. Grant and Staff.*

Transit and level traverses; area determinations; plane table topography; elements of aerial photo interpretation.

346. FOREST PRACTICUM. 3 hours. Nine days at Summer Camp. Prerequisites: Forestry 301, 344, and 345. *Mr. Patterson and Staff.*

Surveying, mapping, and cruising a forest property. Preparation of stand and stock tables, growth data.

JUNIOR AND SENIOR COURSES

302. APPLIED SILVICULTURE. Three lectures and two laboratory periods. Prerequisite: Forestry Summer Camp. *Mr. May.*

Cultural treatment of the forest including intermediate cuttings, use of prescribed fire and silvicides; pruning; methods of securing natural and artificial regeneration.

304. REGIONAL SILVICULTURE. 3 hours. Prerequisite: Forestry 302. *Mr. Jackson.*

Application of silvicultural methods in the forest regions of the United States.

321. WOOD ANATOMY AND IDENTIFICATION. 3 hours. Three laboratory periods. Prerequisites: Forestry 201, 202, *Mr. Hamilton.*

Anatomical features of wood and wood identification by gross and minute structure.

322. FOREST PRODUCTS. 2 hours. Prerequisite: Forestry 321. *Mr. Grant.* Technology, manufacture and use of forest products other than lumber.

323. LOGGING. 2 hours. Prerequisite: Forestry 321. *Mr. Grant.*

Equipment, methods, and transportation; cost analyses.

324. LUMBER MANUFACTURE. 3 hours. Two lectures and one laboratory period. Prerequisite: Forestry 321. *Mr. Grant.*

Methods of manufacture, re-manufacture; grading and distribution.

325. SEASONING AND PRESERVATION. 2 hours. Prerequisite: Forestry 321. *Mr. Grant.*

Pre-drying, air seasoning and kiln drying; preservative treatment.

347. FOREST MENSURATION. Two lectures and three laboratory periods. Prerequisite: Forestry Summer Camp, Statistics 200. *Mr. Moss.*

Volume determination of major forest products, trees, and stands; stand density analysis; growth and yield studies; sampling methods; graphical and statistical analysis.

361. GAME MANAGEMENT. 3 hours. Prerequisite: Botany 375 or Forestry 203. *Mr. Jenkins or Mr. Provost.*

Wild game as a forest resource. The interrelations of game management with other resource use. Game management policy and administration.

362. FOREST RANGE MANAGEMENT. 3 hours. Prerequisites: Botany 122 and Forestry 203. *Mr. Jenkins.*

Principles of range management involving use of forest range as a resource; improvement of forest range; ecology of forest range plants.

372. ECONOMICS OF FORESTRY. Prerequisite: Agricultural Economics 310 or equivalent. *Mr. Parker.*

Demand for forest products and services, economics of production, utilization and distribution; forest taxation and insurance; social aspects of forestry.

382. (ENTOMOLOGY) FOREST PROTECTION: INSECTS. 3 hours. Three laboratory periods. Prerequisites: Forestry 201, 202. *Mr. Lund.*

Biology, identification, and control of the species of insects destructive to American forests.

383. (PLANT PATHOLOGY) FOREST PROTECTION: DISEASES. 3 hours. Three laboratory periods. Prerequisites: Botany 121, 122. *Mr. Thompson.*

An introduction to the diseases of forest trees; identification and control.

384. FOREST PROTECTION: FIRE. 3 hours. Prerequisite: Forestry 203. *Mr. Bishop.*

Causes, effects, and methods of controlling wildfire.

392. FOREST HISTORY AND POLICY. 2 hours. *Mr. Patterson.*

Development of forestry and forest legislation leading to the present American forest policies.

393. INFORMATIONAL METHODS IN FORESTRY. 3 hours. Prerequisite: 20 hours of Forestry courses. *Mr. Bishop.*

Procedures and techniques for use of various media essential to disseminating forestry information to the public.

394. GENERAL FORESTRY. Four lectures and one laboratory period. Prerequisite: Junior standing. Not open to forestry students. *Mr. Parker.*

Relation of forests to economic strength. Renewable vs. non-renewable resources. Introduction to forestry practices.

JUNIOR - SENIOR OR GRADUATE COURSES

401. FOREST TREE PHYSIOLOGY. 3 hours. Two lectures and one laboratory period. Prerequisite: Botany 380. *Mr. Reines* and *Mr. Walker.*

Water, nutrient, and growth regulator absorption and translocation in forest trees; tree growth and development; use of radioisotope techniques.

402. FOREST SOILS. Three lectures and two laboratory periods. Prerequisites: Agronomy 210, Forestry 203. *Mr. May.*

Morphological, physical, and chemical properties of soils in relation to growth of forest trees; classification of soil profiles and site index; appraisal of soil conditions on forest properties.

403. FOREST TREE IMPROVEMENT. 3 hours. Two lectures and one laboratory period. Prerequisite: Forestry 302. *Mr. Reines.*

The genetic inference in forest tree improvement; breeding and progeny testing; quality seed production; vegetative propagation.

404. FOREST HYDROLOGY. 3 hours. Two lectures and one laboratory period. Prerequisite: Forestry 203 and ten hours of Physics. *Mr. Shear* or *Mr. May.*

Administration and regulation of the aggregate resources of a drainage basin; control of erosion, streamflow, and floods. Flood control surveys.

421. PHYSICAL PROPERTIES OF WOOD. 2 hours. Two laboratory periods. Prerequisite: Forestry 321. *Mr. Hamilton.*

The physical nature of wood, including moisture, heat, light, sound, and electrical relations.

422. MECHANICAL PROPERTIES OF WOOD. 3 hours. Two lectures and one laboratory period. Prerequisite: Forestry 321. *Mr. Hamilton.*

Strength and other characteristics of commercial woods as related to growth and utilization; examination of standard testing procedures.

471. ECONOMIC ANALYSIS IN FORESTRY. 3 hours. Prerequisite: Forestry 372. *Mr. Parker.*

Current economic theory as a tool in the analysis of problems in forest production, utilization, and distribution.

481. FOREST FIRE BEHAVIOR AND USE. 3 hours. Prerequisites: Forestry 384 and ten hours of physics. *Mr. Bishop* or *Mr. Shear.*

Ignition, combustion, heat transfer, the convection column, living and dead fuels, fire weather and climatology, danger ratings. Prescribed burning techniques and effects.

501. FOREST INFLUENCES. 2 hours. Prerequisites: Agronomy 210 and Forestry 203. *Mr. Jackson.*

Influence of forests on climate, soil, streamflow, erosion, water conservation, and site productivity.

503. REFORESTATION. 3 hours. Two lectures and one laboratory period. Prerequisites: Agronomy 210 and Forestry 203. *Mr. May.*

Fundamentals and practices involved in artificial regeneration. Seed production, collection, extraction, testing, and storage; nursery management; site preparation; direct seeding, and planting.

504. PRINCIPLES OF MICRO-MEASUREMENTS. 2 hours. Two laboratory periods. Prerequisites: Forestry 321. *Mr. Hamilton* or *Mr. Jackson.*

Microtechniques used in the study of wood elements, characteristics, and behavior.

526. NAVAL STORES. 3 hours. Prerequisites: Forestry 302, 321. *Mr. Bishop.*

History, economics, chemistry, and processing of naval stores; physiology of oleoresin synthesis; field practices of gum naval stores industry.

541. FOREST MANAGEMENT: FOUNDATIONS. Prerequisites: Forestry 302, 347. *Mr. Patterson.*

Principles of forest regulation, business and other objectives of management.

542. FOREST MANAGEMENT: FINANCE. Prerequisite: Forestry 541. *Mr. Bamping.*

Valuation of forest land, growing stock, and stumpage; financial alternatives liquidation vs. sustained yield.

543. FOREST INVENTORY CONTROL. 2 hours. One lecture and one laboratory period. Prerequisites: Forestry 302, 347. *Mr. Bamping.*

Field data collection, machine processing, and analysis for continuous control.

544. SILVICMETRIC METHODS. Prerequisite: Forestry 347. *Mr. Bamping.*

Application of statistical techniques, graphical mathematics, and empirical formulae to all branches of forestry.

545. FOREST MANAGEMENT PLANS. Prerequisites: Forestry 302, 347. *Mr. Patterson.*

Preparation of a management plan for a forest property, including surveying, map making, data collection. Presentation format must meet professional standards.

546. AERIAL PHOTOCRUISE AND MAPPING. 3 hours. Two laboratory periods. Prerequisites: Forestry 347, Geography 420. (Not offered in 1961-62.)

Use of aerial photographs in forest mapping, inventorying, and management administration.

561. WILDLIFE MANAGEMENT TECHNIQUES. 3 hours. Two lectures and one laboratory period. Prerequisites: Forestry 361 or Zoology 353. *Mr. Jenkins or Mr. Provost.*

Field and laboratory techniques commonly required of professional wildlife workers.

562. ADVANCED PRINCIPLES OF WILDLIFE MANAGEMENT. Prerequisites: Forestry 561 or permission of instructor. *Mr. Jenkins or Mr. Provost.*

Application of the principles of animal and plant ecology to the biological basis of wildlife management and its coordination with other land uses on upland and wetlands habitats.

571. MARKETING FOREST PRODUCTS. 2 hours. Prerequisite: Forestry 372. *Mr. Parker.*

Economics of marketing forest products; analysis of cooperatives; techniques for improving marketing efficiency.

591. FOREST ADMINISTRATION. 3 hours. Prerequisite: 20 hours of Forestry courses. *Mr. Patterson.*

Problems, policies and procedures applicable to administration of personnel; human relations; supervisory techniques; professional ethics.

599. FORESTRY PROBLEMS. 3 or 5 hours. *Staff.*

Assigned or selected problems in the field of forestry. A written report is required.

GRADUATE COURSES

For all undergraduate Forestry courses in the 400 and 500 series, listed in the preceding section, there are graduate courses under corresponding numbers in the 600 and 700 series. For example, Forestry 401 is offered at the graduate level as Forestry 601. In addition to these dual-level courses, the following exclusively graduate courses are offered.

801-802-803. PROBLEMS IN SILVICULTURE. 5 hours each. *Mr. Bishop, Mr. Jackson, Mr. May, Mr. Reines, or Mr. Walker.*

Application of basic factors such as soils, nutrients, water, light and fire, to the improvement of silvicultural practices through studies of anatomy, physiology, genetics and ecology.

821-822-823. PROBLEMS IN WOOD TECHNOLOGY AND UTILIZATION. 5 hours each. *Mr. Grant or Mr. Hamilton.*

Anatomical, chemical, physical, or mechanical properties of wood as related to product technology and utilization. Research in the mensuration and economics of utilization.

841-842-843. PROBLEMS IN FOREST MANAGEMENT. 5 hours each. *Mr. Bamping, Mr. Jenkins, Mr. Parker, Mr. Patterson, Mr. Moss, or Mr. Provost.*
Fundamental studies in the mensurational, economic, business, or biological aspects of forest resource management.

881-882. PROBLEMS IN FOREST PROTECTION. 5 hours each. *Mr. Jackson, Mr. Jenkins, or Mr. Shear.*

Basic investigations of agencies damaging or destructive to the forest, primarily fire. (Additional graduate work in forest protection is available in the Department of Entomology and the Department of Plant Pathology and Plant Breeding.)

921. APPLIED RESEARCH IN FORESTRY. *Staff.*

Provides individual guidance in the development of a significant project related to the student's major field of study. A written report presented in a format meeting professional standards must be submitted and subjected to review by an appropriate faculty committee.

930. THESIS.

THE COLLEGE OF EDUCATION

JOHN ANDREW DOTSON, A.B., M.A., Ph.D., *Dean*

MARION JENNINGS RICE, A.B., M.A., Ed.D., *Assistant to the Dean*

GENERAL INFORMATION

The George Peabody College of Education provides and administers all professional courses for the preparation of teachers and other educational workers. Its purpose is to assist the prospective teacher to acquire knowledge of the subjects he wishes to teach, to develop a professional attitude toward education, and to develop skill in teaching.

HISTORY

The College began in 1903 with the organization of a new Department of Philosophy and Education, which, in 1908, became the School of Education. In 1911, a grant from the Peabody Education Fund made possible the erection and equipment of a building for the Peabody School of Education of the University of Georgia. In 1931, the professional educational functions of the University were centralized in the College of Education.

DEGREES

The College offers the following degrees: (a) Undergraduate; Bachelor of Science in Education; (b) Graduate; Master of Arts (Education), Master of Education, and Doctor of Education.

HONOR SOCIETIES

Students registered in the College of Education with a major in language and literature are eligible for election to Phi Beta Kappa. Students pursuing a program leading to the degree of Bachelor of Science in Education are eligible for election to Phi Kappa Phi.

The four national education honor societies with local chapters are: Kappa Delta Pi, Kappa Delta Epsilon, Kappa Phi Kappa, and Phi Delta Kappa.

SPECIAL SERVICES

Service facilities of the College of Education, exclusive of instruction, include: the Bureau of Educational Studies and Field Services, Clinics, and Counseling Service.

BUREAU OF EDUCATIONAL STUDIES AND FIELD SERVICES

The functions of the Bureau of Educational Studies and Field Services are: (1) to carry on, when requested, systematic research in problems of the public schools, the State Department of Education, and the University System of Georgia; (2) to provide, when requested, special field service personnel to the public schools and units of the University System to enable them to deal more effectively with the problems facing the System or units; (3) to conduct, when requested and when feasible, surveys of schools and school systems; (4) to train graduate students and others in the techniques of educational research; (5) to edit and publish several studies and other materials of interest to educators and the public; and (6) to assist local school leaders in conducting educational research.

CLINICS

SPEECH AND HEARING CLINIC. The Speech Correction Area is concerned with training of teachers and the conducting of research in speech correction. As a part of this process, the Speech and Hearing Clinic extends its services to all children and adults who have functional or organic problems of oral communication. Particular attention is given to assisting University students. The speech or hearing problems are diagnosed and a program for corrective treatment is set up on an individual or group basis. Arrangements for these services are made through the Chairman of Speech Correction.

CLINIC FOR TEACHERS OF VOCATIONAL AGRICULTURE. In cooperation with the State Department of Education and the technical departments of the University, both professional and technical short unit courses will be offered to groups of employed teachers throughout the state as a part of a program for the improvement of teachers in service. These courses run from two to five days, depending upon the nature of the problems involved.

READING CLINIC. The Reading Clinic is concerned with the education of teachers of reading and the conducting of research in reading. This Clinic offers both diagnostic and corrective services to elementary and high school pupils. Reading problems are diagnosed, and corrective procedures are suggested. Group or individual corrective sessions are conducted in some instances.

OTHER CLINICS. Other clinics may be organized, staffed, and conducted by the College of Education upon request from groups of educators in the State concerned with various administrative and instructional problems.

COLLEGE OF EDUCATION COUNSELING SERVICE

The College of Education through the office of the Coordinator of Guidance and Student Personnel operates a counseling clinic for the convenience of students enrolled in the College of Education. Qualified counselors are available to help students with professional and personal problems. Personal data folders, developed primarily in group guidance situations in Education 103 and 303 and supplemented by instructors in succeeding education courses, will be on file in the Guidance Office.

As soon as a student enrolls in the College of Education, he will be assigned a faculty adviser who will assist him in educational planning. These faculty advisers will have access to certain information contained in the personal data folders.

Each student, prior to doing student teaching in his senior year, is strongly urged to have a thorough physical examination. Following this suggestion will be a joint responsibility of the student, office of the Coordinator of Guidance and Student Personnel, and the faculty adviser.

INSTRUCTION FOR NON-RESIDENT STUDENTS

To facilitate the professional certification of teachers, the College of Education provides special instructional opportunities for teachers.

These services include: Off-Campus Workshops throughout the State, the Atlanta-Area Teacher Education Service, and, in Athens, Saturday Classes, late afternoon and evening classes, and week-end workshops.

In addition to group instruction, opportunities for individual training under supervision are provided by Education 421-621, Special Problems in Education, and Education 746-747, Internship.

OFF-CAMPUS WORKSHOPS

Upon request of county or independent system school officials the College of Education may conduct off-campus workshops each school year. Members of the college staff work with principals, teachers, and other school officials in discovering and solving individual and group problems. Staff personnel are available for work with workshop participants on problems arising in classroom teaching, faculty meetings, and community planning. Graduate or undergraduate credit may be earned in a workshop. See Education W-560-W-760.

THE ATLANTA AREA TEACHER EDUCATION SERVICE

The College of Education of the University of Georgia and Emory University, in cooperation with school systems in the Atlanta area, constitute the Atlanta Area Teacher Education Service. The Atlanta Area Teacher Education Service pools the resources of the two institutions in providing a program of instruction for the teachers in the Atlanta area. Courses are offered on both credit and non-credit bases. The cooperating institutions provide the instructional and consultative personnel. Residence graduate credit up to 15 quarter hours may be earned in this program.

For further information, write to: The Coordinator, AATES, Emory University, Atlanta 22, Georgia.

SATURDAY CLASSES

The College of Education holds Saturday classes for superintendents, principals, and teachers living within commuting distance of Athens. The program is planned to meet the expressed needs of those attending. The offerings are on both the graduate and undergraduate levels, and are not limited to work in education.

GRADUATE DIVISION

CURRICULA

The Graduate Division provides for the training of the following: (1) Elementary School Teachers, (2) Elementary School Principals, (3) Secondary School Teachers, (4) College Teachers, (5) Secondary School Principals, (6) School Superintendents, (7) Counselors, (8) School Psychologists, (9) Supervisors and Supervising Teachers, (10) Visiting Teachers, (11) Teachers in special fields such as Health and Physical Education, Industrial Arts, Agriculture, Home Economics, Business Education, and Education for Exceptional Children.

GRADUATE DEGREES IN EDUCATION

Graduate students in education may qualify for either of two degrees at the master's level, depending on their vocational objectives. The degree of Master of Arts (Education) is designed for students whose vocations require training in research procedures. The degree of Master of Education is designed for students whose vocational objectives do not presuppose rigorous training in research procedures but rather a broad background of professional training.

A candidate for the degree of Master of Arts (Education) or the degree of Master of Education who plans to teach a high school or college subject is expected to plan for appropriate course concentrations in that teaching field.

The student should seek the advice of the Chairman of the Division of

Graduate Studies of the College of Education in determining the suitability of the degree program to his educational purpose.

Graduate work in education is distinctly professional in character and is under the administration and supervision of the Graduate School. In addition to this general supervision, special direction in the graduate field of education is provided by the College of Education.

During his first quarter of graduate residence, the graduate major in Education should request the Chairman of the Division of Graduate Studies, College of Education, to assign him to a major professor. At this time the student will be furnished detailed information concerning the requirements of the graduate degree for which he wishes to become a candidate.

The satisfactory completion of four undergraduate courses in education is a prerequisite of any course in education for graduate credit.

The specific requirements for a graduate degree are given in the Graduate School section of the General Catalogue, as follows:

- Master of Arts (Education), p. 104
- Master of Education, p. 109
- Doctor of Education, p. 112

GRADUATE PROGRAMS FOR TEACHER CERTIFICATION

(see p. 114)

UNDERGRADUATE DIVISION

The degree requirements for the University may be found on pp. 69-70. In addition, each candidate for the degree Bachelor of Science in Education must make grades of C or above in required education courses and in teaching field courses.

The undergraduate curricula prepares teachers and other educational workers for the following fields: agricultural education, art education, business education, distributive education, elementary education, health and physical education, home economics, industrial arts, teachers of grades 7, 8, and 9, teachers of the mentally retarded and motor handicapped, secondary education, school librarian, speech correction, and trade and industrial education.

The certification programs are listed in the order given above.

UNDERGRADUATE SEQUENCE

The basic undergraduate professional sequence consists of Education 103 or 303, 304, 335, 336, and 346, 347, 348. The first four are regular campus courses; the last three, student teaching.

In addition, elementary teachers include in their program Education 201, 331, 401 and related education courses in music, art, physical education, health education, and nutrition.

Education 455 is frequently included as a required or elective course for general secondary and other high school teachers.

The prospective teacher should follow carefully the program of study outlined for his professional certification. No deviations should be made without prior approval by the student's adviser.

The student should particularly note that electives in the professional program are not "free" electives but are "approved electives" related to the teaching field.

Education courses, except for 103 and 303, are taken in the order listed during the junior and senior years. Education 303 will be required of transfer students who have not had Education 103 or the equivalent.

History 100 is required of all students who have registered as freshmen since September 1, 1954. This requirement may be met by passing an examination on the history of Georgia and the United States. Where History 100 is shown in a program, it may nevertheless be taken for degree and certification credit.

STUDENT TEACHING

Supervised observation and student teaching in Cooperating Laboratory Schools are required of candidates for a degree from the College of Education. An alternate plan is available for persons with one or more years of teaching experience.

Student teaching is articulated with instruction in general and specific methods under the direction of competent supervising teachers. High school student teachers teach in one or both teaching fields; elementary, by grade.

Application for student teaching must be made by students through the Coordinator of Professional Laboratory Experiences at least one quarter before they expect to do student teaching. (See Education 346, 347, 348).

In order to be eligible for student teaching, the prospective teacher must have completed all, or almost all, of his teaching field courses. He must have a grade of C or above in required education and in teaching field courses. Furthermore, any student deficient in such skills as reading, writing, speaking, and number computations will be deferred from student teaching until such deficiency is corrected.

Elementary school teachers are required to spend at least one period of two weeks in a public school during late August and early September prior to their student teaching. This "September Experience" familiarizes the student with teaching problems at the beginning of a regular school year.

UNDERGRADUATE PROGRAMS FOR TEACHER CERTIFICATION

(LISTED ALPHABETICALLY)

Undergraduate teacher-education programs at the University of Georgia are approved by the State Board of Education. A person completing any one of these programs may be recommended to the Division of Certification, State Department of Education, for a four-year professional certificate (T-4). For further information, see the State Department of Education bulletin "Certification of Teachers."

Unless otherwise indicated, the programs outlined lead to the degree of Bachelor of Science in Education with a major in the field specified.

Provisions for professional certification are also available in other programs at the University: In the College of Arts and Sciences, general secondary school teachers, Bachelor of Arts and Bachelor of Science degrees; major in art education, Bachelor of Fine Arts; major in music education, Bachelor of Music; and major in speech and drama, Bachelor of Fine Arts. In the College of Agriculture, major in agricultural education, Bachelor of Science in Agriculture. In the School of Home Economics, major in home economics education, Bachelor of Science in Home Economics.

BACHELOR OF SCIENCE IN AGRICULTURE WITH A MAJOR IN AGRICULTURAL EDUCATION

MR. TOLBERT, *Chairman*

FRESHMAN AND SOPHOMORE YEARS

	Hours		Hours
Agricultural Economics 104	3	Agricultural Economics 110	3
Agronomy 101 or Horticulture 101	3	Agricultural Engineering 220	3
Animal Husbandry 101 or Dairy 103	3	Agronomy 210	5
Botany 121, 122, and Zoology 225, 226 (3 of the 4)	15	Chemistry 260	5
Chemistry 121, 122	10	Forestry 102	3
English 101-102	10	Speech 108	5
Agriculture 101	1	Mathematics 100	5
Military Science 1 or Air Science 5	6	Physics 120	5
Physical Education 1	0	Political Science 101 and History 100	(10) *
—	51	Poultry 160	3
		Electives	(0-10) **
		Military Science 2 or Air Science 6	6
		Physical Education 2	0
		<hr/>	53

JUNIOR AND SENIOR REQUIREMENTS

	Hours		Hours
Science Selections	25	Major	25
Education 304 or 455, and four of the following courses:	5	Education 335.1	5
Bacteriology 350	5	Education 336.1	5
Agronomy 423 or Mathematics 356	5	Education 346.1, 347.1, 348.1	15
Plant Pathology 353	5	Special Requirements	12
Plant Pathology 358	5	Education 349.1	3
Entomology 374	5	Agricultural Engineering 203	6
Sociology 431 or 433	5	Agricultural Engineering 207	3
Minor No. 1	10	Electives	13
Agricultural Economics 301	5	<hr/>	50
Agricultural Economics 304	5		
Minor No. 2	10		
Selected from any depart- ment of the University subject to the approval of the adviser.			
Special Requirements	10		
Animal Husbandry 373	5		
Food Technology 409	5		
<hr/>	55		

*May be satisfied by passing the Constitution Examination and the Examination on American and Georgia History.

**As determined by the extent to which Political Science 101 and History 100 are satisfied by passing the prescribed examinations.

ART EDUCATION

MR. PICKENS, *Chairman*

FRESHMAN AND SOPHOMORE YEARS

	Hours		Hours
English 101-102	10	Art 120, 130, 140.....	15
English 121-122	10	Art 216, 217, 218.....	9
Political Science 101	5	Art 287, 288, 289.....	9
Speech 108	5	Education 201	3
Zoology 101-102	10	History 111-112	10
(or related substitute)		Physical Science 101,	
Mil. Sci. or Air Science.....	12	Earth Science 104, or	
Phys. Ed. (for men).....	0	Geography 101	5
(for women)	10		—
		Total	101-103

*JUNIOR AND SENIOR REQUIREMENTS

	Hours		Hours
Ceramics	5	Education 304	5
Art 310	5	Education 335.9	5
Art History	10	Education 336.9	5
Art 321, 331, 341.....	15	Education 346.9, 347.9, 348.9.....	15
Art 370	5	**Electives	25
Art 313	5	(to be approved by Adviser)	—
		Total	100

* Courses listed as Junior and Senior requirements constitute the major in Art Education and a student is expected to achieve a grade of "B" or better in all courses.

** Senior Division electives now provide an opportunity for the prospective art teacher to have a second teaching field.

BUSINESS EDUCATION

MR. ROACH, *Chairman*

FRESHMAN AND SOPHOMORE YEARS

	Hours		Hours
English 101-102	10	English 121-122	10
Speech 108	5	History 100 or 112.....	5
Political Science 101	5	Psychology 101	5
Zoology 101-102, or Botany		Art 305 or Industrial Arts 332	5
121-122 or Zoology 225-226	10	Economics 105-106	10
Mathematics 100 or 101 and 356...	5	Business Administration 110-111	10
Education 103	5	Business Administration 108	4
Physical Science*	5	Military Science 2 or	
Military Science 1 or		Air Science 6	6
Air Science 5	6	Physical Education 2 (for men) ...	0
Physical Education 1 (for men)...	0	or	
or		Physical Education 2	
Physical Education 1		(for women)	5
(for women)	5		—

50-51

54-55

* Chemistry 121 or 122, Geology 125, Geography 104, 121 or 122, Physics 120.

JUNIOR AND SENIOR REQUIREMENTS

	Hours
Education 304, 335.7, 336.7	15
Education 346.7, 347.7, 348.7	15
Education 455 or Approved Elective	5
Business Administration 300 a-b-c	9
Business Administration 303, 304, 305	6
Business Administration 310	5
Business Administration 370	5
Economics Electives	10
Electives	22
	—
	92

DISTRIBUTIVE EDUCATION

MR. ROACH, *Chairman*

FRESHMAN AND SOPHOMORE YEARS

Hours	Hours
English 101-102	English 121-122
10	10
Mathematics 100	Art 305 or Industrial Arts 332 ...
5	5
Zoology 101-102 or	Psychology 101
Botany 110-111	5
10	Economics 105-106
Social Science 104	10
5	Business Administration 110-111... 10
Political Science 101	5
5	Approved elective
Speech 108	5
5	Military Science 2 or
Physical Science 101 or	6
Geography 121	6
5	Physical Education (for men) 0
Military Science 1 or	0
Air Science 5	6
6	Physical Education (for women) 5
Physical Education 1 (for men)... 0	5
0	—
or	
Physical Education 1	50-51
(for women)	
5	
—	
50-51	

JUNIOR AND SENIOR REQUIREMENTS

	Hours
Education 303, 304	10
Education 335.7, 336.7	10
Education 346.7, 347.7, 348.7*	15
Education 349 or approved substitute	5
Economics 585	5
Business Administration 368	5
Business Administration 370	5
Business Administration 560	5
Business Administration 562	5
Business Administration 563	5
Business Administration 567	5
Education 320	5
Approved electives	15
	—
	95

* Prerequisite: A minimum of 500 hours of paid work experience in a distributive retail, wholesale, or service establishment, on a full or part-time basis. Approval of such work experience must be obtained from the faculty adviser for the Distributive Education program.

ELEMENTARY SCHOOL TEACHERS

MRS. SUTTON, *Chairman*

This program leads to a certificate to teach in the elementary schools from the kindergarten through the seventh grade.

FRESHMAN AND SOPHOMORE YEARS

		Hours			Hours
English 101-102	10	English 121-122	10		
Social Science 104	5	History 111 and 100 or 112.....	10		
Political Science 101	5	Mathematics 100	5		
Zoology 101-102 or		Economics 105	5		
Botany 121-122	10	Physics 120, Chemistry 121-122,			
Psychology 101	5	Geology 125 (2 of the 4)	10		
Geography 101	5	Education 201	3		
Speech 108	5	Approved Elective (b).....	5		
Military Science 1 or		Military Science 2 or			
Air Science 5	6	Air Science 6	6		
Physical Education 1 (for men)...	0	Physical Education 2 (for men)...	0		
or		or			
Physical Education 1		Physical Education 2			
(for women)	5	(for women)	5		
	—		—		
	50-51		50-51		

JUNIOR AND SENIOR REQUIREMENTS (a)

		Hours			Hours
Music 302	5	Sociology 431	5		
Art 305	5	Mathematics 502	5		
Education 303	5	Education 335.4-336.4	10		
Education 304	5	Education 346.4-347.4-348.4	15		
Physical Education 307	5	Approved Elective (b).....	10		
Education 331	3		—		
Education 401	5		45		
Health Education 344	3				
Home Economics 304	3				
Approved Electives (b).....	10				
	—				
	49				

(a) Approved September School Experience required prior to Student Teaching.

(b) The category of "approved electives" totals twenty-five quarter hours and is designed to permit the elementary school teacher to acquire proficiency in a teaching area in the elementary school, such as: English, mathematics, science, history, geography, modern foreign languages, music, and art. At least fifteen hours should be selected from one subject area. See also "Library Education."

LIBRARY EDUCATION FOR THE ELEMENTARY SCHOOL TEACHER

Library Education courses, described elsewhere in this catalogue, are open to elementary as well as secondary school teachers. By taking 20 quarter hours in library education, the student may satisfy the requirements for certification as teacher-librarian. With approval of the faculty adviser, these courses may be included among electives in the junior and senior years.

HEALTH AND PHYSICAL EDUCATION

MR. SMITH, *Chairman*

FRESHMAN AND SOPHOMORE YEARS

Hours	Hours		
English 101-102	10	English 121 or 122	5
Education 103	5	***Chemistry 121 and 122 or	
Zoology 101-102	10	Ag. Chemistry 260	10
Social Studies*	5-15	History 111-112	10
Physical Education 118-119	6	Speech 108 or 150	5
Physical Education 180, 181,		Social Studies*	5
182 (men)**	9	Physical Education 280, 281,	
Electives (women)	5	282 (Men and Women)	9
Military Science 1 or		Military Science 2 or	
Air Science 5	6	Air Science 6	6
Physical Education 1x (Men)	0	Physical Education 2x (Men)	0
Physical Education 1 (Women) ...	5	Physical Education 2 (Women) ...	5
—		—	
50-51		49-50	

JUNIOR AND SENIOR REQUIREMENTS

CONCENTRATION AREAS

Although a student will receive some training in each one of the fields, Health Education, Physical Education, and Recreation Education, he must, with the approval of his adviser and Head of the Department, set up a program in one of the Concentration Areas at the beginning of the junior year or earlier. A student will be certified in his major concentration with the exception of the Recreation Area. The State Department does not issue certification in the area of recreation. If he desires certification in another area he must satisfy the requirements in that area.

I. PHYSICAL EDUCATION

	Hours
Education 304, 335.3, 336.3	15
Education 346.3, 347.3, 348.3	15
Physical Education 307, 311, 360,	
361, 372, 383, 384	29
Zoology 312, 313	10
Physical Education 380, 381, 382... ..	9
Electives	18-20
—	
96-98	

II. HEALTH EDUCATION

	Hours
Education 304, 335.3, 336.3	15
Education 346.3, 347.3, 348.3	15
Phy. Educ. 307, 360, 361,	
371, 372, 383	28
Zoology 312, 313	10
Bacteriology 350	5
Family Development 390 or 393	5
Education 455	5
Electives in Related Areas	10
Elective	5

98

* Select one course in Freshman year and one course in Sophomore year from the following: Political Science 101, Economics 105-106, Sociology 105, Psychology 101, Philosophy 104, Anthropology 102, Geography 101, or a substitute approved by the major professor.

** Majors in this field are expected to obtain a uniform to be used in activity classes. These should be obtained from the University Book Stores.

***Concentration Area in Recreation Education 10 hours from the following: Chemistry, Ag. Chemistry, Physical Science, Botany, Anthropology, Geography, or Geology.

III. RECREATION EDUCATION

Education 304, 335.3, 336.3	15
Education 346.3, 347.3, 348.3	15
Physical Education 307, 311, 372, 384, 385, 386, 387	25
Physical Education 280, 281, 282	9
Music and Industrial Arts.....	15
Sociology	5
Recommended Electives:	
Physical Education 383 (Men and Women)	
Physical Education 380, 381, 382 (Men)	
Physical Education 315, 380, 381, 382 (Women)	14

98

HOME ECONOMICS

MISS CROSS, *Chairman*

FRESHMAN AND SOPHOMORE YEARS

	Hours		Hours
Art 120 or 130	5	English 121-122	10
English 101-102	10	Chemistry 260 or	
Political Science or		Approved Substitute	5
Approved Elective*	5	Economics 105 or	
Psychology 101	5	Approved Elective	5
Home Economics 120	5	Social Science Elective	5
Education 103	5	Home Economics 115	5
Zoology 101-102	5	Home Economics 175	5
Chemistry 121	5	Home Economics 224	5
Physical Education 1	5	Home Economics 293	5
	50	Physical Education 2	5
			50

JUNIOR AND SENIOR REQUIREMENTS

	Hours
Speech 108	5
Bacteriology 350	5
Home Economics 306, 321, 344, 364	18
Home Economics 368, 369, 390, 490	16
Education 455, 335.2, 336.2	15
Education 346.2, 347.2, 348.2	15
Home Economics 343, 351 or 358, 357 or 377	13
Electives	8
	95

Prerequisites for Education 335.2-336.2 are as follows: Home Economics 224, 293, 306, 343, 390 or 490; an over-all average grade of 75 or above; evidence of fitness for teaching.

Students who have not taken Home Economics courses within six years prior to the date of registration for completion of requirements for a degree in this major, or for professional certification, must take at least twenty hours of course work in Home Economics.

* U.S. Constitution and Georgia Constitution requirements may be met through examinations or through Political Science 101.

INDUSTRIAL ARTS

MR. HARRISON, *Chairman*

FRESHMAN AND SOPHOMORE YEARS

	Hours		Hours
English 101-102	10	English 121-122	10
Speech 108 or 150	5	History 111-112	10
Political Science 101	5	Art 120, 130, 140, or	
Education 103	5	Landscape Architecture 155	5
Industrial Arts 120, 150	10	Industrial Arts 122	5
Social Science 104	5	Psychology 101	5
Physical Science 101 or		Mathematics 100 or	
Geography 121	5	Related Substitute	5
Military Science 1 or		Military Science 2 or	
Air Science 5	6	Air Science 6	6
Physical Education 1 (for men)...	0	Physical Education 2 (for men)...	0
or		or	
Physical Education 1		Physical Education 2	
(for women)	5	(for women)	5
	—	Electives	5
	50-51		—
			50-51

JUNIOR AND SENIOR REQUIREMENTS*

	Hours
Education 304, 335.6, 336.6	15
Education 346.6, 347.6, 348.6	15
Education 455	5
Industrial Arts 315.....	5
Industrial Arts 323	5
Industrial Arts 324	5
Industrial Arts 325	5
Industrial Arts 328	5
Industrial Arts 330	5
Industrial Arts 340	5
Industrial Arts 550	5
Electives	20
	—
	95

TEACHERS OF GRADES 7, 8, AND 9

MR. SCOTT, *Chairman*

This program leads to a certificate to teach in grades 7, 8, and 9.

FRESHMAN AND SOPHOMORE YEARS

Hours		Hours	
English 101-102	10	English 121-122	10
Speech 108	5	History 100 or 111, and 112	10
Political Science 101	5	Physical Science 101 or	
Zoology 101-102	10	Physics 120	5
Mathematics 100*	5	Economics 105	5
Sociology 105	5	Fine Arts 300	5
Education 103	5	Geography 101	5
Military Science 1 or		Psychology 101	5
Air Science 5	6	Military Science 2 or	
Physical Education (for men)	0	Air Science 6	6
Physical Education (for women)	5	Physical Education (for men)	0
—	—	Physical Education (for women)	5
	50-51		—
			50-51

JUNIOR AND SENIOR REQUIREMENTS

	Hours
Philosophy 358	5
Teaching Field (see Recommended Courses in Teaching Fields)	20
Second Teaching Field (see Recommended Courses in Teaching Fields) ...	20
Approved Electives***	15
Education 304, 455, 335J, 336J	20
Education 346J, 347J, 348J	15
—	—
	95

RECOMMENDED COURSES IN TEACHING FIELDS FOR
TEACHERS OF GRADES 7, 8, AND 9

The student must select any two of the following four teaching fields. Courses must be selected with the approval of the student's adviser and should ordinarily include those listed.

English (minimum of 20 hours from the following courses)

	Hours
English 310, Advanced Grammar and Syntax	5
English 304, English Literature since 1800	5
English 422, American Literature since 1865	5
Library Education 502, Principles of Book Evaluation.....	5
—	—
	20
Approved elective: Education 401, The Teaching of Reading.	

* Students exempting Mathematics 100 may select some other course, subject to the approval of the student's adviser.

*** These courses must be approved by the student's adviser, should usually include courses in either or both teaching fields, and should be carefully selected to strengthen the student's program. A course in Health Education (Physical Education 344 or 371) is desirable.

Mathematics (minimum of 20 hours from the following courses)

	Hours
Mathematics 101, Trigonometry	5
Mathematics 210, Analytical Geometry	5
Mathematics 356, Statistics	5
Mathematics 254, Differential Calculus	5
	20

Approved elective: Mathematics 255, Integral Calculus.

Science (minimum of 20 hours from the following courses)

	Hours
Botany 121, Elementary Botany	5
Chemistry 121, General Chemistry	5
Physics 127, General Physics-Mechanics	5
Geography 121, The Natural Environment (Landforms)	5
	20

Approved electives: Mathematics 101, Trigonometry, Botany 122, Elementary Botany, and Geography 122, The Natural Environment (Climate-Vegetation).

Social Sciences (minimum of 20 hours from the following courses)

	Hours
History 456, Recent American History	5
History 430, Europe since 1914	5
History 459, Georgia History	5
Geography 358, Economic Geography	5
	20

Approved elective: History 410, History of the Far East, or History 460, Russia and the Soviet Union.

TEACHING MENTALLY RETARDED CHILDREN

MR. AINSWORTH, *Chairman*

FRESHMAN AND SOPHOMORE YEARS

	Hours		Hours
English 101-102	10	English 121-122	10
Geography 101	5	History 111-112	10
Zoology 101	5	Social Science 104, or Economics	
Mathematics 100	5	105, or Philosophy 104 or 358,	
Education 103	5	or Sociology 105, or	
Speech 108	5	Anthropology 102	10
Art 305	5	Zoology 102	5
Political Science 101	5	Psychology 101	5
Military Science 1 or		Industrial Arts 332	5
Air Science 5	6	Military Science 2 or	
Physical Education 1 (men)	0	Air Science 6	6
Physical Education 1 (women).....	5	Physical Education 2 (men)	0
	50-51	Physical Education 2 (women).....	5
			50-51

JUNIOR AND SENIOR REQUIREMENTS

	Hours
Education 304, 401, 512, 518, 519	25
Education 335.4 and 336.4	10
Education 346.4, 347.4 and 348.17	15
Speech 310	5
Music 302	5
Physical Education 307	5
Psychology 415, 423, 490.....	15
Electives	15
	—
	95

TEACHING MOTOR HANDICAPPED CHILDREN

MR. AINSWORTH, *Chairman*

FRESHMAN AND SOPHOMORE YEARS

Hours		Hours	
English 101-102	10	English 121-122	10
Geography 101	5	History 111-112	10
Zoology 101	5	Social Science 104, or Economics	
Mathematics 100	5	105, or Philosophy 104 or 358,	
Education 103	5	or Sociology 105, or	
Speech 108	5	Anthropology 102	10
Art 305	5	Zoology 102	5
Political Science 1	5	Psychology 101	5
Military Science 1 or		Industrial Arts 332	5
Air Science 5	6	Military Science 2 or	
Physical Education 1 (men)	0	Air Science 6	6
Physical Education 1 (women)	5	Physical Education 2 (men)	0
	—	Physical Education 2 (women)	5
	50-51		—
			50-51

JUNIOR AND SENIOR REQUIREMENTS

	Hours
Education 304, 401, 512, 525, 526	25
Education 335.4 and 336.4	10
Education 346.4, 347.4 and 348.17	15
Speech 310	5
Music 302	5
Physical Education 307	5
Psychology 415, 423, 490.....	15
Electives	15
	—
	95

MUSIC EDUCATION

This program now leads to the Bachelor of Music degree in the Franklin College of Arts and Sciences (See page 140).

GENERAL SECONDARY TEACHERS

MR. SINGLETON, *Chairman*

This program leads to a certificate to teach in high school, grades nine through twelve. In the junior-senior years, the prospective teacher will select one or two teaching fields. Electives are chosen, subject to approval by the adviser, from the student's teaching field or related courses.

FRESHMAN AND SOPHOMORE YEARS

Hours	Hours		
English 101-102	10	History 111 or 100, 112*	10
Speech 108	5	English 121-122	10
Political Science 101	5	Physical Science**	10
Zoology 101-102 or		Industrial Arts 332 or Art 305.....	5
Botany 121-122	10	Psychology 101	5
Mathematics 100	5	Mathematics 101 or 356	5
Education 103	5	Military Science 2 or	
Social Studies*	5	Air Science 6	6
Military Science 1 or		Physical Education 2 (for men) ..	0
Air Science 5	6	or	
Physical Education 1 (for men) ..	0	Physical Education 2	
or		(for women)	5
Physical Education 1			
(for women)	5		
	50-51		50-51

JUNIOR AND SENIOR YEARS

Hours	Hours		
Education 304	5	Education 335.5-336.5	10
Teaching Field Courses	30	Education 346.5, 347.5, 348.5	15
Approved Electives	10	Education 455 or	
	45	approved elective	5
		Teaching Field Courses	10
		Approved Electives	10
			50

RECOMMENDED COURSES IN TEACHING FIELDS FOR
HIGH SCHOOL TEACHERS

The program in the teaching field consists of a minimum of 40 hours concentrated in one broad field with 20 hours of approved electives in this or related fields or 60 hours in two fields. The courses in the teaching field and electives must be planned with the student's adviser. Course selections should be made from the following lists, with those courses marked by an asterisk (*) in each field, being required or strongly recommended for teachers in this field.

* One course should be selected from the following: Anthropology 102, Economics 105, Geography 101, Social Science 104, Sociology 105.

** Two courses should be selected from the following: Chemistry 121-122, Geography 121-122, Geography 104, Geology 125-126, Physical Science 101 (Physics 120), Physics 127-128.

ENGLISH TEACHERS**

(Minimum of 40 quarter hours from following courses)

ENGLISH:

- *English 303, English Literature to 1800
- *English 304, English Literature after 1800
- English 305, Lyric Poetry
- *English 310, Advanced Grammar and Syntax
- English 360, Advanced Composition
- English 361, The Short Story
- *English 420, American Literature to 1865
- *English 422, American Literature after 1865
- English 429, Southern Literature
- English 440, Shakespeare, Part I
- English 441, Shakespeare, Part II

CLASSICAL CULTURE:

Classical Culture 310, English Derivatives from Greek and Latin

SPEECH:

- Speech 310, Survey of Speech Problems
- Speech 350, Argumentation and Debate
- Speech 386, Oral Interpretation of Prose and Poetry
- Speech 387, Oral Interpretation of Dramatic Literature

DRAMA:

Drama 560, Play Direction

JOURNALISM:

Journalism 566, Journalism in the Secondary School

- **A student planning to teach high school English must complete twenty hours or the equivalent in foreign language. These twenty hours may be a combination of high school and college courses. It is recommended that English be combined with a foreign language as a second teaching field.

TEACHERS OF FOREIGN LANGUAGES**

(Minimum of 40 hours in one of the following languages.)

FRENCH:

- *French 103 and 104, Intermediate French
- *French 106, Intermediate French Conversation and Composition
- *French 201 and 202, Introduction to the Study of French Literature
- French 433, French Drama of the Twentieth Century
- French 434, French Novel of the Twentieth Century
- *French 556, Advanced French Syntax and Composition
- French 557, French Phonetics
- French 581, Problems of Teaching Romance Languages

SPANISH:

- *Spanish 103 and 104, Intermediate Spanish
- *Spanish 106, Spanish Conversation and Composition
- *Spanish 201 and 202, Introduction to Spanish Literature
- Spanish 420, The Modern Spanish Novel
- *Spanish 526, Advanced Spanish Syntax and Composition
- Spanish 528, Spanish Phonetics
- Spanish 581, Problems of Teaching Romance Languages

- **It is recommended that a foreign language be combined with English as a second teaching field. Students preparing to teach French or Spanish may substitute French 101-102 or Spanish 101-102 for two junior division courses with approval of students' adviser.

LATIN:

- *Latin 201 and 202, Elementary Latin
- *Latin 203, Intermediate Latin
- *Latin 304, Readings in Latin
- *Latin 305, Livy
- *Latin 306, Horace
- Latin 500, Honors Course in Latin
- Classical Culture 302, Rome

MATHEMATICS TEACHERS

(Minimum of 40 quarter hours from the following courses.)

- *Mathematics 101, Trigonometry
- *Mathematics 210, Analytic Geometry
- *Mathematics 254 and 255, Calculus
- *Mathematics 356, Statistics
- Mathematics 401, Differential Equations
- Mathematics 402, Vector Analysis
- *Mathematics 441, Introduction to Higher Algebra
- Mathematics 442, Introduction to Higher Algebra
- Mathematics 451, Mathematical Statistics
- Mathematics 454 and 455, Introduction to the Foundations of Analysis
- *Mathematics 457, Calculus
- Mathematics 461, Advanced Analytic Geometry

SCIENCE TEACHERS

(Minimum of 40 quarter hours from following courses)

ASTRONOMY:

- Astronomy 391, Descriptive Astronomy

BACTERIOLOGY:

- Bacteriology 350, Introductory Microbiology

BOTANY:

- *Botany 121 and 122, Elementary Botany
- Botany 305, Identification of Flowering Plants
- Botany 306, Identification of Trees and Shrubs
- Botany 375, Plant Ecology

CHEMISTRY:

- *Chemistry 121 and 122, General Chemistry
- *Chemistry 340a, Organic Chemistry (First Course)
- Chemistry 340b, Organic Chemistry (Second Course)
- Chemistry 223, Qualitative Inorganic Analysis
- Chemistry 370 and 371, Industrial Chemistry
- Chemistry 390, Elements of Physical Chemistry

ENTOMOLOGY:

- Entomology 373, General Entomology
- Entomology 374, Economic Entomology

GEOGRAPHY:

- Geography 121, The Natural Environment (Landforms)
- Geography 122, The Natural Environment (Climate-Vegetation)
- Geography 310, Conservation of Natural Resources
- Geography 401, Regional Climatology and Vegetation

GEOLOGY:

- *Geology 125, Elements of Geology (Physical)
- Geology 126, Elements of Geology (Historical)
- Geology 332, Structural Geology
- Geology 402, Geomorphology

PHYSICS:

- *Physics 127, General Physics—Mechanics
- *Physics 128, General Physics—Heat, Sound and Light
- *Physics 229, General Physics—Electricity and Modern Physics
- Physics 370, Principles of Photography

ZOOLOGY:

- *Zoology 101 and 102, Human Biology
- *Zoology 225 and 226, General Zoology
- Zoology 350, Vertebrate Natural History
- Zoology 353, Animal Ecology
- Zoology 370, Genetics
- Zoology 390, Animal Physiology
- Zoology 454, Aquatic Biology

SOCIAL STUDIES TEACHERS

(Minimum of 40 quarter hours from the following)

ECONOMICS:

- *Economics 105, Principles of Economics
- Economics 334, Personal Finance
- Economics 386, Labor Economics
- Economics 437, Comparative Economic Systems
- Economics 444, Government and Business
- Economics 455, Contemporary Economic Problems

HISTORY:

- *History 351 and *352, American History
- *History 410, History of the Far East
- *History 430, Europe since 1914
- History 458, History of American Diplomacy
- History 459, History of Georgia
- History 460, Russia and the Soviet Union
- History 492, The Latin-American Republics
- History 495, The United States in World Affairs, since 1900

GEOGRAPHY:

- *Geography 101, World Human Geography
- *Geography 358, Economic Geography
- Geography 436, Geography of the Southeastern States
- Geography 441, Caribbean America
- Geography 442, South America
- Geography 444, Europe and the Mediterranean
- Geography 446, Geography of the Soviet Union
- Geography 448, Geography of Southeast Asia
- Geography 459, North American Urban Geography
- Geography 460, North American Industrial and Transportation Geography
- Geography 461, North American Agricultural Geography

POLITICAL SCIENCE:

- *Political Science 202, American Government
- Political Science 307, European Governments
- Political Science 406, State Government
- Political Science 409, American Political Thought since 1800
- Political Science 410, American Political Parties
- Political Science 468, City and County Government
- Political Science 420, International Relations
- Political Science 421, International Organization
- Political Science 481, Political Institutions

SOCIOLOGY:

- *Sociology 105, Introductory Sociology
- Sociology 360, Contemporary Social Problems
- Sociology 427, Personality and Social Adjustment
- Sociology 431, Principles of Rural-Urban Sociology
- Sociology 435, Community Organization
- Sociology 461, The Family

SCHOOL LIBRARIAN

MRS. BROADHURST, *Chairman*

A twenty-hour Library Education minor consists of the four courses listed below. It is designed to meet the needs of (1) students anticipating graduate study in Library Science and (2) students wishing to qualify for positions as school librarian, teacher-librarian, or public librarian. All four courses are offered at least once during a school term and in alternate summers.

	Hours
Library Education 303, Utilization of Library Materials	5
Library Education 304, Organization of Library Materials	5
Library Education 305, Administration of a Small Library	5
Library Education 502, Book Selection and Purchase	5

SPEECH CORRECTION

MR. AINSWORTH, *Chairman*

FRESHMAN AND SOPHOMORE YEARS

	Hours		Hours
English 101-102	10	History 111-112	10
Speech 108	5	English 121-122	10
Political Science 101	5	Social Science 104, or Economics	
Zoology 101-102 or		105, or Philosophy 104 or 358,	
Related Electives	10	or Sociology 105, or	
Mathematics 100 or		Anthropology 102	10
Related Elective	5	Psychology 101	5
Education 103	5	Speech 150	5
Physical Science 101	5	Speech 209	5
Military Science 1 or		Military Science 2 or	
Air Science 5	6	Air Science 6	6
Physical Education 1 (for men)...	0	Physical Education 2 (for men)...	0
or		or	
Physical Education 1		Physical Education 2	
(for women)	5	(for women)	5

JUNIOR AND SENIOR REQUIREMENTS

	Hours
Education 304	5
Education 335.4 and 336.4	10
Education 346.16, 347.16, 348.16	15
Speech 310, 412, 470, 471	20
Speech or Education 474, 476	10
Education 512, 538	10
Psychology 415, 423, and 490 or Education 452	15
Electives	10
	—
	95

TRADE AND INDUSTRIAL EDUCATION

MR. BRYANT, *Chairman*

FRESHMAN AND SOPHOMORE YEARS

	Hours		Hours
English 101, 102	10	English 121-122	10
Engr. Drawing A.En. 104-105	4	Psychology 101	5
Chemistry 121, 122	10	Economics 105-106	10
Political Science 101	5	History 111-112	10
Education 103	5	Speech 108	5
Mathematics 100	5	Social Science 104	5
Physics 120	5	Electives	5
Elective	2	Military Science 2 or	
Military Science 1 or		Air Science 6	6
Air Science 5	6	Physical Education 2	0
Physical Education 1	0		—
	—		56
	52		

JUNIOR AND SENIOR REQUIREMENTS

	Hours
Education 304, 335.18, 336.18	15
Education 346.18, 347.18, 348.18	15
Education 349	5
Business Administration 351	5
Business Administration 352	5
Business Administration 583	5
Economics 386	5
Industrial Arts 326	5
Industrial Arts 340	5
Electives	24
	—
	89

COURSES OF INSTRUCTION

(Peabody Hall, North Campus)

The University reserves the right to withdraw any course for which the registration is not sufficient, and to offer courses not here listed should sufficient demand arise and teaching facilities and personnel be available.

Unless otherwise indicated all courses will meet five times a week and carry a credit of five hours.

For a description of course numbers, as they apply to graduates and undergraduates, see p. 68.

Courses are arranged alphabetically within the following major groups: Education (EDU); Industrial Arts (IA); Library Education (LIB); and Health and Physical Education (PED).

The basic undergraduate courses are grouped together at the beginning of the Education section.

BASIC UNDERGRADUATE COURSES

103. AN INTRODUCTION TO PERSONAL AND PROFESSIONAL DEVELOPMENT. *Mr. Mills, Miss Rooks, and Miss Swain.* (For first-quarter freshmen through second-quarter sophomores).

Beginning students appraise strengths and weaknesses through standardized tests, interviews, and other techniques; study the teaching profession; and plan educational experiences in view of self-study and professional requirements.

201. HUMAN DEVELOPMENT AND THE EDUCATIVE PROCESS. 3 hours. *The Staff.*

Mental, physical, emotional, and social growth of the elementary school child in relation to learning. Directed observation.

303. INDIVIDUAL ANALYSIS AND PROFESSIONAL PLANNING. (No credit allowed if student has credit for Education 103 or equivalent. For third quarter sophomores through first quarter seniors). *Mr. Mills, Miss Rooks, Miss Swain and Mr. Weaver.*

Each student appraises his aptitudes and abilities, studies and chooses professional goals, and makes plans for their attainment. The study of teaching as a profession and the development and present status of the public schools.

304. EDUCATIONAL PSYCHOLOGY. *Mr. Aaron, Mr. Bledsoe, Mr. Garrison, Mr. Kingston, and Mrs. Scott.*

Application of psychology to problems of child growth and development, learning, motivation, measurements, personality adjustment and mental hygiene, and individual differences.

331. INTRODUCTION TO CHILDREN'S LITERATURE. 3 hours. *Miss Cooper and Mrs. Dekle.*

Literature suitable for elementary school children; stimulation of children's reading.

335. CURRICULUM PLANNING. Prerequisites: Education 103 (303) and Education 304 or equivalent. *The Staff.*

Determining curriculum content and planning instructional programs based on pupil needs. Directed observation in selected schools.

336. TEACHING PROCEDURES. Prerequisite: Education 335, but may be scheduled concurrently with 335. *The Staff.*

Study and evaluation of teaching materials and techniques by teaching field. Directed observation and planning for student teaching.

346, 347, 348. STUDENT TEACHING. 15 hours. Prerequisites: Education 335 and 336 and minimum grade of C in required education courses and teaching field. (See "Student Teaching," p. 323). Cooperating Laboratory Schools. *The Staff.*

Prospective teachers are placed in selected schools for an entire quarter, during which they are supervised in actual teaching in their chosen teaching field.

349. SEMINAR IN EDUCATION. 3 hours. Prerequisite: Education 346, 347, 348. *The Staff.*

Problems emerging from experiences in student teaching; planning school programs; place and responsibility of teacher in the school.

401. THE TEACHING OF READING. See p. 343.

455. PSYCHOLOGY OF ADOLESCENCE. See p. 344.

HOME ECONOMICS 304. NUTRITION EDUCATION FOR TEACHERS. 3 hours. Prerequisite: Senior College standing. *Miss Beall and Miss Boyd.*

Diet habits of Georgia school children and relation of nutrition to health.

ADMINISTRATION EDUCATION

727. PERSONNEL ADMINISTRATION. Prerequisites: Four courses in education, including Education 790 or 794. *Mr. Ezell, Mr. Gentry, Mr. Hall, and Mr. Smith.*

Principles and policies governing employer-employee relationships in the public schools.

790. BASIC THEORIES OF EDUCATIONAL ADMINISTRATION. Prerequisites: Four courses in education. *Mr. Ezell, Mr. Gentry, Mr. Hall, and Mr. Smith.* Modern theory in school administration.

791. EDUCATIONAL ADMINISTRATION. Prerequisites: Four courses in education. *Mr. Ezell, Mr. Gentry, Mr. Hall, and Mr. Smith.*

Intensive study of selected problems, issues, and practices in educational administration.

794. ADMINISTRATION OF ELEMENTARY AND SECONDARY SCHOOLS. Prerequisites: Four courses in education. *Mr. Ezell, Mr. Gentry, Mr. Hall, and Mr. Smith.*

Duties of the school principal in the organization and administration of the school.

795. ADMINISTRATION OF STATE AND LOCAL SCHOOL SYSTEMS. Prerequisites: Four courses in education, including Education 790 or equivalent. *Mr. Ezell, Mr. Gentry, Mr. Hall, and Mr. Smith.*

Fundamentals of state and local public school organization and administration; relation of state and local systems to federal agencies.

797. THE SCHOOL PLANT. Prerequisites: Four courses in education. *Mr. Ezell, Mr. Gentry, Mr. Hall, and Mr. Smith.*

Cooperative planning in developing a school plant program; execution of school plant plans; operation and maintenance of the school plant.

798. SCHOOL FINANCE. Prerequisites: Four courses in education. *Mr. Ezell, Mr. Gentry, Mr. Hall, and Mr. Smith.*

Problems and issues involved in financing the public schools.

899. SCHOOL LAW. Prerequisites: Four courses in education, including one course in Educational Administration. *Mr. Ezell, Mr. Feild, Mr. Gentry, Mr. Hall, Mr. Rice, and Mr. Smith.*

Legal principles applicable to public education: nature and structure of the public school system, teacher personnel, and student personnel.

ART EDUCATION

(see p. 154)

AUDIO-VISUAL EDUCATION

564. SURVEY OF AUDIO-VISUAL COMMUNICATIONS. *Mr. Oliver.*

A review of literature in audio-visual communications. Characteristics and effects of educational and commercial motion pictures, radio, television, and graphics emphasizing their social and educational implications.

565. UTILIZATION OF AUDIO-VISUAL MATERIALS. *Mr. Oliver.*

Criteria of selection and principles of utilization of audio-visual instructional media. Laboratory experiences to develop familiarity with materials and the ability to use various types of audio-visual equipment in teaching.

566. ADMINISTRATION OF AUDIO-VISUAL SERVICES. *Mr. Oliver.*

Problems of organizing and administering audio-visual materials and equipment services. Emphasis on selection and evaluation, school plant requirements, costs, developing the program, and appraising adequacy and effectiveness.

568. PRODUCTION OF AUDIO-VISUAL MATERIALS. *Mr. Oliver.*

Production of instructional materials largely in the photographic, sound, and graphic areas. Laboratory experiences in developing and producing materials within specific interests of the class.

CURRICULUM

405. FUNDAMENTALS OF THE CURRICULUM. Prerequisites: Four courses in education. *Miss Burnham, Miss Cox, Mr. Dickerson, Mr. Newsome, and Mr. Sprowles.*

An introductory course in the fundamentals of curriculum planning.

506. CURRICULUM PLANNING. Prerequisites: Four courses in education. *The Staff.*

Problems of the curriculum of elementary and secondary schools.

EXCEPTIONAL CHILDREN

512. INTRODUCTION TO EXCEPTIONAL CHILDREN. Prerequisites: Four courses in Education including Education 304. *Mrs. Blake and Miss Scott.*

Nature, causes, and treatment of children's disabilities and their influence on emotional, social, educational, and vocational adjustment. Special services required for exceptional children to develop to the maximum capacities.

518. NATURE OF MENTAL RETARDATION. Prerequisites: Education 304, 512, plus three additional courses in Education. *Mrs. Blake and Miss Scott.*

Description of types, nature, and causes of mental retardation and implications for adjustment and education. Problems of parental adjustment, diagnosis, treatment and educational modifications.

519. MATERIALS AND METHODS OF TEACHING SKILL SUBJECTS TO THE MENTALLY RETARDED. Prerequisites: Four courses in Education plus Education 512 and 518. *Miss Scott.*

The study, selection and preparation of suitable curricular materials; methods used in teaching the skills which mentally retarded children need.

525. NATURE AND TREATMENT OF MOTOR HANDICAPS. Prerequisites: Four courses in Education plus Education 512. *Mrs. Blake.*

Nature and causes of motor handicaps with emphasis on cerebral palsy. Contributions of various therapies, equipment, and services of physical therapy, occupational therapy, speech correction, and play therapy.

526. EDUCATION OF CHILDREN WITH MOTOR HANDICAPS. Prerequisites: Four courses in Education plus Education 512 and 525. *Mrs. Blake and Miss Scott.*

The study, selection, and preparation of suitable materials and modifications of methodology to meet the needs of motor handicapped children.

787. PROBLEMS OF THE MULTIPLE HANDICAPPED. Prerequisites: Education 712, 725, 718, Psychology 615, 616, 618. *Mrs. Blake and Miss Scott.*

Planning and implementing programs for the total education, care, and treatment of mentally retarded and physically limited individuals.

837. ANALYSIS OF RESEARCH IN MENTAL RETARDATION. Prerequisites: Education 712, 718, Psychology 615, 616, 618. *Mrs. Blake and Miss Scott.*

Study and evaluation of research in mental retardation. Applications to educational, psychological, and vocational rehabilitation procedures.

GUIDANCE AND COUNSELING

420. FUNDAMENTALS OF A GUIDANCE PROGRAM. *Mr. King, Mr. Mills, Miss Rooks and Miss Swain.*

An introduction to professional training for counselors and an opportunity for teachers to acquire an over-view of guidance functions in the school program.

521. ANALYSIS OF THE INDIVIDUAL. *Mr. King, Mr. Mills and Miss Swain.*

Techniques for discovering characteristics of individuals. Students will develop competencies in recording, analyzing, correlating, and interpreting data as they relate to counseling.

523. COUNSELING. Prerequisites: Four courses in education and one course in guidance. *Mr. King, Mr. Mills, and Miss Swain.*

Theories underlying various approaches to counseling—directive, client-centered and eclectic. Practice in using the interview in obtaining and giving information and changing attitudes.

524. EDUCATIONAL AND OCCUPATIONAL INFORMATION. Prerequisite: Four courses in education and consent of instructor. *Mr. King, Mr. Mills, and Miss Rooks.*

Nature, sources, and functions of information about educational and occupational opportunities in assisting individuals to formulate comprehensive plans. Examination and evaluation of techniques for discovering, collecting, filing, interpreting, and using this information for counseling.

750. COUNSELING PRACTICUM. Prerequisite: Consent of instructor. *Mr. King, Mr. Mills, and Miss Swain.*

Supervised practice counseling in the guidance clinic. All skills developed in guidance preparations will be used. Counseling competence will be evaluated.

INTERNSHIPS

746. INTERNSHIP. *Major Professor.*

A study-work program: class or conference study of problems encountered by the intern with remainder of time in application of principles to regular job.

747. INTERNSHIP. *Major Professor.*

A continuation of the study and practice begun in Education 746.

METHODS OF TEACHING

401. THE TEACHING OF READING. *Mr. Aaron, Miss Cooper, Mrs. Dolvin, Mrs. Sutton, and Mr. Wootton.*

A systematic coverage of the teaching of reading, including methods, techniques, and materials, from first through twelfth grades.

402. THE ANALYSIS AND CORRECTION OF READING DISABILITIES. *Mr. Aaron, Mrs. Dolvin, and Mrs. Sutton.*

Causes of reading disability; methods of diagnosis; procedures and materials for corrective work, group and individual.

404. GUIDING THE READING OF CHILDREN. *Mrs. Dolvin and Mrs. Sutton.*

Literature and methods of reading guidance for children.

517. PROBLEMS OF TEACHING. Prerequisites: Four courses in education. *The Staff.*

Instructional procedures and evaluation of teaching in terms of pupil growth.

566. JOURNALISM IN THE SECONDARY SCHOOL. *The Staff.*

See Journalism 566.

581. (FRENCH OR SPANISH). PROBLEMS OF TEACHING ROMANCE LANGUAGES. Prerequisite: French or Spanish 201-202 or 15 hours of education in addition to French or Spanish 104. *The Staff.*

See Modern Foreign Language 581.

MUSIC EDUCATION

(see p. 193-194)

PHILOSOPHY OF EDUCATION

800. BASIC ISSUES IN EDUCATION. Prerequisite: Four courses in education. *Mr. Newsome.*

An interdisciplinary study of basic issues in modern American education.

803. PHILOSOPHY OF EDUCATION. Prerequisites: Four courses in education and consent of the instructor. *Mr. Newsome and Mr. Sprowles.*

A critical examination of philosophical questions concerning education.

807. AMERICAN HIGHER EDUCATION. Prerequisite: Four courses in education. *Mr. Newsome.*

Theories and principles of American higher education and the various types of institutions of higher education.

808. HISTORY OF EDUCATION. Prerequisite: Four courses in education. *Mr. Newsome.*

Persistent and recurring problems of education in Western Culture.

PSYCHOLOGY OF EDUCATION

412. PROBLEMS IN EDUCATIONAL PSYCHOLOGY. Prerequisite: Education 304. *Mr. Aaron, Mr. Bledsoe, Mr. Garrison, and Mr. Greene.*

Specialized training in selected areas of educational psychology, e. g., individual differences, motivation, evaluation procedures, etc.

452. PSYCHOLOGY OF CHILDHOOD. Prerequisite: Education 304 or equivalent. *Mr. Bledsoe, Mr. Garrison, Mr. Kingston, and Mrs. Sutton.*

Interests, needs, and abilities of elementary pupils; evaluation of their total development.

455. PSYCHOLOGY OF ADOLESCENCE. Prerequisite: Education 304 or equivalent. *Mr. Bledsoe, Mr. Garrison, Mr. Kingston.*

Interests, needs, and abilities of adolescents; evaluation of their total development.

636. FUNDAMENTALS OF CHILD STUDY. *Mr. Shufelt.*

Techniques of child study: anecdotal record, home visitation, simple projective techniques, interviews, creative production.

684. ADVANCED CHILD STUDY. Prerequisite: Four courses in education including Education 636. *Mr. Garrison and Mr. Shufelt.*

Interpretation of a case record using an organizing framework of six processes: physiological, affectional, peer group, socialization, self-developmental, self-adjustive.

802. ADVANCED EDUCATIONAL PSYCHOLOGY. *Mr. Aaron, Mr. Bledsoe, Mr. Garrison, and Mr. Kingston.*

Applications of the scientific findings of psychology to the more complex problems of the educative process.

RESEARCH AND MEASUREMENT IN EDUCATION

418. STATISTICAL METHODS IN EDUCATION. *Mr. Aaron, Mr. Bledsoe, Mr. Garrison, and Mr. Scott.*

Descriptive statistics used in education with a brief introduction to probability and inference.

421. SPECIAL PROBLEMS IN EDUCATION. 5 or 10 hours. *The Staff.* (For Selected Students.)

Specialized training appropriate to the needs of the individual. The student's project may involve intensive library investigation in a special field or the collection and analysis of original data pertinent to a given problem.

456. EDUCATIONAL TESTS AND MEASUREMENT. Prerequisites: Four courses in education. *Mr. Aaron, Mr. Bledsoe, and Mr. Kingston.*

Nature and function of measurement in education. Teacher-made and standardized tests and scales. Introductory statistical concepts of measurement.

615. PROBLEMS IN THE EVALUATION OF INSTRUCTION. *Mr. Bledsoe and Mr. Greene.*

Interpretation of the results secured from evaluative techniques.

801. SEMINAR IN EDUCATION. Prerequisite: Education 826 or 816 and six courses in Education and Psychology. *Mr. Greene and the Staff.*

A seminar for advanced students in Education dealing with proposed student research projects and critiques of the literature.

812. ADVANCED STATISTICS IN EDUCATION AND PSYCHOLOGY. Prerequisite: Education 418 (618) or equivalent. *Mr. Aaron, Mr. Bledsoe, Mr. Greene, and Mr. Scott.*

Statistics of inference, sampling techniques, analysis of variance and co-variance, introduction to principles of experimental design.

816. METHODS OF FORMAL RESEARCH IN EDUCATION. *Mr. Bledsoe, Mr. Greene, and Mr. Scott.*

Research competencies involved in the planning, conducting and reporting of masters theses and doctoral dissertations. Required of all candidates for the degree of Master of Arts (Education) and must be completed before the student is permitted to register for Education 930.*

818. EVALUATION IN EDUCATION. (No credit allowed if student has credit for Education 615). Prerequisites: Four courses in education and consent of the instructor. *Mr. Bledsoe, Miss Cox, Mr. Greene, Mr. Perrodin, and Mrs. Sutton.*

The application of principles and practices of evaluation to the total school program.

* If the training of the student requires, Education 826 and 816 may be interchanged, upon recommendation of the major professor and approval of the Dean.

826. METHODS OF APPLIED RESEARCH IN EDUCATION. *Mr. Bledsoe, Mr. Greene, and Mr. Scott.*

Research skills and related competencies involved in the planning, conducting and reporting of applied research studies of the type required for the degree of Master of Education. Must be completed before the student is permitted to register for Education 921.*

916, 917, 918. EDUCATIONAL RESEARCH. 5-15 hours. Prerequisites: Four courses in education and graduate standing. *Authorized members of College of Education Staff.*

Individual investigation in the field of a student's specialization.

921. LABORATORY IN APPLIED EDUCATION. Prerequisites: Four courses in education. *The Staff.*

Functional study of a topic or problem in education significantly related to the student's professional task.

SPEECH CORRECTION

Additional required and elective courses for students majoring in speech correction may be found under the Department of Speech and Drama and the Department of Psychology.

474. VOICE AND ARTICULATORY DISORDERS OF SPEECH. (Same as Speech 474). Prerequisite: Speech 470. *Mr. Ainsworth and Mr. Luper.*

Etiology, rationale and methods of therapy for functional and organic disorders of voice and articulation. Development of a therapeutic program and lesson plans. Supervised clinical practice with individuals and groups.

476. STUTTERING: ETIOLOGY AND THERAPY. (Same as Speech 476). Prerequisite: Speech 470. *Mr. Luper.*

Major theories of causation of stuttering, whether based in neurophysiological, emotional, or learning factors. The development of an integrated therapy based on modern research. Supervised clinical practice in individual and group therapy.

534. CLASSROOM PROBLEMS IN SPEECH CORRECTION. (Atlanta Area Teacher Education Service only). Prerequisite: Four courses in Education. *Mr. McCroskey.*

Problems of defective speech, common etiologies, identification of speech defects, and the role of the teacher in referral, examination and correction. Clinical demonstrations in cooperation with the Atlanta Speech School.

535. (SPEECH) DIRECTED INDIVIDUAL STUDY IN SPEECH CORRECTION. Prerequisite: Four courses in Speech Correction. *Mr. Luper.*

Adaptation of the speech correction curriculum to the individual needs of mature students. A detailed outline of requirements must be prepared in conference by the student and instructor and approved by the Chairman of Speech Correction.

536. (SPEECH) DIRECTED INDIVIDUAL STUDY IN SPEECH CORRECTION. Prerequisite: Four courses in Speech Correction. *Mr. Luper.*

Continuation of Education 535, but content must be different.

537. (SPEECH) SEMINAR IN SPEECH PATHOLOGY. Prerequisite: Six courses in speech correction or four courses and consent of the instructor. *Mr. Ainsworth.*

Intensive exploration of the research and theory in one or more areas of speech pathology. Specific content adapted to the needs of the students. Group projects in addition to readings and lectures.

538. PROGRAM ADMINISTRATION AND CLINICAL PRACTICE IN SPEECH CORRECTION. Prerequisite: Speech 470 and one content-clinical practice course in speech correction. *Mr. Ainsworth.*

Methods for finding, selecting and scheduling speech cases in the public schools. The organizational and administrative problems in keeping records, reporting, and coordinating speech correction activities. Supervised clinical practice.

539. ADVANCED CLINICAL PRACTICE IN SPEECH CORRECTION. Prerequisite: Six courses in speech correction and 200 clock hours of supervised clinic practice. *Mr. Luper.*

Work with complex and difficult problems of speech combined with intensive readings, conferences, and discussions.

*If the training of the student requires, Education 826 and 816 may be interchanged, upon recommendation of the major professor and approval of the Dean.

835. (SPEECH) ORGANIC DISORDERS OF SPEECH. Prerequisite: Six courses in speech correction. *Mr. Ainsworth.*

Pathologies affecting speech, the speech tests and therapy for cases of cleft palate, cerebral palsy, aphasia, laryngectomy and retarded speech. Role of the speech pathologist in the medical-psychological-education-speech therapist team.

SUPERVISION

730. SUPERVISION OF INSTRUCTION. Prerequisites: Four courses in education and consent of the instructor. *Miss Burnham, Miss Cox, Mr. Dickerson, Mr. Perrodin, Mr. Singleton, Mr. Smith, Mr. Sprowles. and Mrs. Sutton.*

A comprehensive study of the basic concepts of supervision and ways and means of improving instruction through supervision.

732. SEMINAR IN SUPERVISION. Prerequisites: Three courses in supervision and consent of instructor. *Miss Burnham and Miss Cox.*

Identification and investigation of problems of supervision and research; experimentation in the use of supervisory procedures.

733. SEMINAR IN GROUP DEVELOPMENT. Prerequisite: One course in supervision, administration, or counseling and consent of instructor. *Miss Burnham and Miss Cox.*

Group process and problems of group work, improving behavioral skills in group leadership and membership roles, and improving group planning and execution of educational programs.

830. INVESTIGATION IN SUPERVISION. Prerequisites: Four courses in education and consent of instructor. *Miss Burnham, Miss Cox, Mr. Dickerson, Mr. Perrodin, Mr. Singleton, Mr. Smith, and Mrs. Sutton.*

An interdisciplinary study of forces impinging upon education and the implications of these findings for supervision and curriculum development.

TRADE AND INDUSTRIAL EDUCATION

541. PRINCIPLES AND PRACTICES IN TEACHING INDUSTRIAL SUBJECTS. *Mr. Bryant.*

Principles and practices of teaching manipulative skills and related technology; organization of subject matter, lesson planning and student appraisal.

542. SCHOOL SHOP EQUIPMENT AND MANAGEMENT. *Mr. Bryant.*

Principles involved in the physical planning of school shops and laboratories; selection of tools and equipment.

543. CURRICULUM PLANNING FOR TRADE AND INDUSTRIAL SUBJECTS. *Mr. Bryant.*

Principles and procedures in the development of curricula for trade and technical courses.

544. COORDINATION OF DIVERSIFIED COOPERATIVE TRAINING. *Mr. Bryant.*

Major responsibilities and activities of the Diversified Cooperative Training Coordinator.

VOCATIONAL EDUCATION

671. ADULT EDUCATION. Prerequisite: Four courses in education and consent of the instructor. *Miss Beall, Mr. Bryant, Miss Cross, Mr. O'Kelley, and Mr. Tolbert.*

The primary purposes are: (1) to develop a philosophy of adult education, (2) to develop techniques for discovering adult problems, and (3) to discover and apply appropriate methods of organizing and teaching adult groups.

763. PROBLEMS IN VOCATIONAL EDUCATION. Prerequisite: Four courses in education and consent of the instructor. *Miss Beall, Miss Boyd, Mr. Bryant, Miss Cross, Mr. O'Kelley, and Mr. Tolbert.*

For experienced teachers and school administrators who want additional training in specific problems of teaching. Students may work at their special interest, individually or in groups.

771. TEACHING PROCEDURES IN VOCATIONAL EDUCATION. Prerequisites:

Four courses in education and consent of the instructor. *Miss Beall, Miss Boyd, Mr. Bryant, Miss Cross, Mr. O'Kelley, and Mr. Tolbert.*

For teachers who desire guidance in improving teaching procedures. Consideration is given to the development of curricula based on the needs and interests of students.

772. EVALUATION IN VOCATIONAL EDUCATION. Prerequisites: Four courses in education and consent of the instructor. *Miss Beall, Mr. Bryant, Miss Cross, Mr. O'Kelley, and Mr. Tolbert.*

Has two primary purposes: (1) to guide teachers, supervisors, and administrators to develop the ability to evaluate departments and programs of vocational education in schools and communities, and (2) to guide teachers in the development of methods and techniques for evaluating their own instruction.

773. SUPERVISION OF VOCATIONAL TEACHING. Prerequisites: Four courses in education and consent of the instructor. *Miss Beall, Miss Boyd, Mr. Bryant, Miss Cross, Mr. O'Kelley, and Mr. Tolbert.*

Primary purposes are: (1) To develop a philosophy of teacher education, (2) to discover problems in vocational teacher education in Georgia (3) to determine relative emphasis that each teacher training agency should place upon solution of the several problems, and (4) to project plans for an apprentice training program.

WORKSHOPS

W560-W760. EDUCATIONAL PLANNING AND DEVELOPMENT. *The Staff.*

Educational planning for the development of the local school or system. Registrants sectioned according to the area of specialization. (See also "Off-Campus Workshops.")

A maximum of four workshops (20 hours) may be taken by any one registrant.

INDUSTRIAL ARTS (IA)

I.A. 120. GENERAL SHOP. One single and four double periods. *Mr. Harrison and Mr. Nix.*

General survey of a wide variety of materials, tools, and procedures.

I.A. 122. BEGINNING WOODWORK. One single and four double periods. *Mr. Nix.*

Planning, construction, and finishing of industrial arts woodworking projects.

I.A. 150. INDUSTRIAL ARTS DRAFTING. One single and four double periods. *Mr. Harrison and Mr. Nix.*

Reading and writing a graphic language; developing working drawings which have application to industrial arts projects.

I.A. 315. BLUE PRINT READING AND PROCESSING. One single and four double periods. *Mr. Harrison and Mr. Nix.*

Solutions of blue print reading problems of various industries; construction and development of drawings, tracings, and prints.

I.A. 323. INDUSTRIAL ARTS DESIGN. One single and four double periods. *Mr. Harrison.*

Application of industrial art design to student projects.

I.A. 324. METAL WORK. One single and four double periods. *Mr. Harrison and Mr. Nix.*

Planning, construction, and finishing of projects in metal; development of skill in the use of hand tools.

I.A. 325. ADVANCED WOODWORK. One single and four double periods. *Mr. Harrison.*

A continuation of beginning woodwork with more emphasis on power machinery.

I.A. 326. MATERIALS AND MATHEMATICS OF INDUSTRY. *Mr. Nix.*

Common industrial materials and their production; size and cost estimate; application of mathematics to industrial arts work.

I.A. 327. BASIC ELECTRICAL TECHNOLOGY. One single and four double periods. *Mr. Harrison and Mr. Nix.*

Introductory electricity and electronics; application of principles to projects.

I.A. 328. ADVANCED GENERAL SHOP. One single and four double periods. *Mr. Harrison.*

A continuation of Industrial Arts 120 in which the student works on advanced projects and gains experience in carrying on a general shop program.

I.A. 330. ADVANCED DRAFTING. One single and four double periods. *Mr. Harrison.*

A continuation of beginning drafting. Advanced problems in drafting and machine design are studied.

I.A. 332. INDUSTRIAL ARTS AND HANDICRAFT FOR TEACHERS. One single and four double periods. *Staff.*

The place and type of industrial arts suitable for adults, camp counselors, teachers, homemakers, and others interested in creative activities.

I.A. 340. MACHINE DRAFTING AND DESIGN. One single and four double periods. *Mr. Harrison.*

Advanced problems will be developed in drafting, such as shape description, auxiliaries, sections, layouts, isometrics, and perspective.

I.A. 510. PRINCIPLES OF INDUSTRIAL ARTS EDUCATION. *Mr. Harrison.*

History, principles, function, organization, and evaluation.

I.A. 550. ORGANIZATION OF SUBJECT MATTER IN INDUSTRIAL ARTS. *Mr. Harrison.*

Selection, organization, presentation, and interpretation of subject matter in industrial arts. Students will work out job plans, instruction sheets, and plan course content.

I.A. 560. ADMINISTRATION OF INDUSTRIAL ARTS. *Mr. Harrison.*

Interpretation of industrial arts curricula in terms of school and community needs. Organization and reorganization of shop programs. Cost accounting of materials, equipment, supplies, and housing.

I.A. 570. SPECIAL PROBLEMS IN INDUSTRIAL ARTS. *Mr. Harrison.*

Improvement of curriculum and teaching procedures through intensive training in a particular area of interest.

I.A. 580. SEMINAR IN INDUSTRIAL ARTS AND HANDICRAFTS. *Mr. Harrison.*

Advanced study in industrial arts and handcraft. Research and experimentation in selected areas of the industrial arts.

LIBRARY EDUCATION (LIB)

L.E. 303. UTILIZATION OF LIBRARY MATERIALS. Prerequisites: Senior-college standing and consent of instructor. *Mrs. Broadhurst.*

A study of reference books for school and community use and use of the library as an information laboratory.

L.E. 304. ORGANIZATION OF LIBRARY MATERIALS. Prerequisites: Senior-college standing and consent of instructor. *Mrs. Broadhurst.*

Instruction and practice in the organization of library materials based on the Dewey Decimal Classification.

L.E. 305. ADMINISTRATION OF A SMALL LIBRARY. Prerequisites: Senior-college standing and consent of instructor. *Mrs. Broadhurst.*

Housing, equipment, staff, public relations, and other aspects of library management.

L.E. 502. BOOK SELECTION AND PURCHASE. Prerequisites: Education 335-336 and two additional approved courses in Education. *Mrs. Broadhurst.*

A study of selection aids, book reviewing, reading lists, book publishers and publishing, standards useful in balancing a collection, and methods of reading guidance.

HEALTH AND PHYSICAL EDUCATION (PED)

PHYSICAL EDUCATION

1-2. PHYSICAL EDUCATION. 10 hours.

Women. Three hours a week for six quarters. Physical Education Building, South Campus. *Physical Education Staff.*

Women students may select activities which best meet their special needs and interests, based upon their health, organic fitness and previous experience in physical education. The activities include adapted physical education, archery, badminton, basketball, bowling, camping, fencing, fundamentals of movement, golf, hockey, life saving, recreational sports, rhythmic activities, soccer, softball, swimming, water safety instructors course, tennis, tumbling, volleyball.

Men. Two hours a week for six quarters. Stegeman Hall. *Physical Education Staff.*

Minimum physical fitness standards must be met during the freshman year as determined by physical fitness test. A swimming test will be administered at the start of the fall quarter. Activities include touch football, soccer, speedball, basketball, volleyball, softball, tumbling, apparatus, trampoline, weight training, tennis, badminton, handball, golf, track and field, bowling, and special classes for those students with disabilities who are in need of a limited program.

1x-2x. PHYSICAL EDUCATION (Majors, men). Three hours a week for six quarters. (Laboratory period to be arranged). Stegeman Hall. *Physical Education Staff.*

These courses parallel Physical Education 1-2. Designed for Physical Education and Recreation Majors as introductory courses to Physical Education 180, 181, 182 and Physical Education 280, 281, 282.

180, 181, 182. (M). SKILL TECHNIQUES FOR MEN. 9 hours. (3 hours a quarter. Four periods a week required). Stegeman Hall. *Mr. Gabrielsen and Mr. Harvill.*

Demonstrations and practice, including methods and techniques, in teaching such activities as apparatus, tumbling, stunts and pyramids, swimming and diving, life saving, water shows, golf and tennis.

280, 281, 282 (M). SKILL TECHNIQUES FOR MEN. 9 hours (3 hours each quarter. Four periods a week required). Stegeman Hall. *Mr. Bowen.*

Demonstration and practice in teaching methods and techniques in such activities as archery, badminton, gymnastics, wrestling, mass callisthenics, handball, and others.

280, 281, 282 (W). PHYSICAL EDUCATION ACTIVITIES. 9 hours (3 hours a quarter). (Laboratory period to be arranged). Prerequisite: One quarter in activity engaged in or permission of instructor. South Campus. *Miss Alvarez, Miss Russell, and Miss Soares.*

a. Theory and practice of soccer and speedball for girls.

b. Rhythmic analysis of physical education activities.

c. Teaching and coaching methods in tennis and archery. Advanced techniques and officiating methods. Organization of tournaments.

307. PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL. Prerequisite: Education 304. South Campus. *Miss Lewis and Miss Russell.*

Designed to help the teacher understand the place of Physical Education in Education and its contribution to the developing child. Experience is given in planning, teaching and evaluating physical educational activities.

311. FUNDAMENTAL MOTOR SKILLS. 3 hours. South Campus. *Miss Soares.* Methods and techniques in motor skills. Opportunities are provided for experiences conducting these physical education activities. Knowledge of resource materials.

315. AQUATICS. 3 hours. Prerequisite: Intermediate swimming or the consent of the instructor. South Campus. *Miss Joiner.*

Prepares students for the American Red Cross Instructor's Water Safety Course, for conducting swimming meet, and for presenting water shows. Recommended to students who are interested in camping activities.

357. INTERMEDIATE COMPOSITION. 3 hours. South Campus. *Miss Alvarez.* Study of fundamentals of composition and production. Individual and group problems.

360. KINESIOLOGY. Prerequisite: Zoology 312. South Campus. *Miss Keaster.*

Analysis and application of the physical and physiological principles involved in human motion. Physical laws governing the manipulation of objects in sports.

361. THERAPEUTICS OF EXERCISE. Prerequisite: Physical Education 360. South Campus. *Miss Keaster.*

The techniques of appraisal and guidance of pupils with faulty body mechanics, orthopedic defects and other atypical conditions. Practice is given in the therapeutic use of exercise, massage, relaxation, and other physical modalities.

372. HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION. Stegeman Hall. *Staff.*

A survey of the history and study of principles and trends in health, physical education and recreation, professional organizations, literature, and outstanding programs.

376. ORGANIZATION AND ADMINISTRATION. (Same as Education 336.3). North and South Campus. *Mr. Gabrielsen and Miss Lewis.*

Deals with the organization and administration of physical education and recreation programs in the school. Planning the curriculum in physical education as a part of the total school program.

380, 381, 382 (W). TEAM SPORTS FOR WOMEN. 9 hours (3 hours a quarter). (Laboratory period to be arranged). Prerequisite: One quarter of each sport or consent of the instructor. South Campus. *Miss Russell and Miss Soares.*

Teaching, coaching, and officiating methods in volleyball, basketball, and softball. Actual experience in teaching in class and officiating in intramural games. The Women's National Official Rating Examination will be given in volleyball and basketball.

380, 381, 382 (M). THEORY, COACHING METHODS AND OFFICIATING OF MAJOR SPORTS. 9 hours, (3 hours each quarter). (Laboratory period to be arranged). Prerequisite: Senior level standing. Stegeman Hall. *Coaching Staff.*

Theory and coaching techniques of major sports including football, basketball, baseball, and track. Various coaching systems, stressing their strong and weak points, the study of the various positions of the teams, as well as scheduling, transportation, diets, publicity, and other administrative problems are covered. Participation in planning of University Intramural Sports program, as well as officiating in the various sports, will be included.

383. EVALUATION AND MEASUREMENTS. 3 hours. Stegeman Hall. *Mr. Bowen.*

Methods in evaluating and testing physical education activities; procedures to be used in evaluating these tests and their results, including statistical analysis.

513. PHYSICAL EDUCATION IN THE SCHOOL PROGRAM. Prerequisite: Four courses in education. South Campus. *Mr. Gabrielsen and Miss Lewis.*

Designed to help teachers and administrators to evaluate and understand the place of physical education in education. The needs of students, both individuals and group, programs, equipment, facilities, and their relation to the school and the community.

714-715. PROBLEMS IN HEALTH, PHYSICAL EDUCATION AND RECREATION. 5 or 10 hours. South Campus. *Mr. Gabrielsen and Miss Lewis.*

Problems met in the development of a comprehensive program of health education, physical education and recreation in the school and school community. Special emphasis on problems identified by the student.

HEALTH EDUCATION

119. FIRST AID AND TREATMENT OF ATHLETIC INJURIES. 3 hours. Stegeman Hall. *Mr. Bowers and Mr. Harvill.*

Problems and practical applications in first aid and the common injuries received in athletic competition.

344. PROBLEMS IN SCHOOL HEALTH EDUCATION. 3 hours. One double laboratory period. South Campus. *Miss Keaster.*

Principles, materials, and methods of school health education. Teacher's role in securing a healthful environment, health appraisal, guidance, and instruction.

354. THE EFFECTS OF ALCOHOL ON THE INDIVIDUAL, THE FAMILY, AND THE COMMUNITY. *The Staff.*

A comprehensive study of the many effects of the use of beverage alcohol on the individual, family, and community. The physiological, psychological, sociological, moral or spiritual, economic, legal, and health aspects will be investigated. Methods and techniques for teaching in this area will be discussed and developed.

370. SCHOOL HEALTH EDUCATION. South Campus. (Same as Education 335.3). *Mr. Bowers.*

Techniques in recognizing health needs and interests of people in relation to their environment. Pupil experiences and materials to meet these needs. Integrating classroom health activities with health resources in the community.

371. PERSONAL AND COMMUNITY HEALTH PROBLEMS. South Campus. *Mr. Bowen and Mr. Bowers.*

Current information in the areas of personal health, communicable diseases control, etc., as these apply to healthful living for individuals and groups.

511. HEALTH EDUCATION IN SCHOOL AND COMMUNITY. Prerequisite: Four courses in education. South Campus. *Mr. Bowers and Miss Keaster.*

Analysis of problems in health education as they pertain to children in school and out of school, and to adults; the place of the classroom teacher and the school administrator in health program. Opportunity for independent study.

577. SAFETY EDUCATION. Stegeman Hall. *Mr. Clemence.*

Problems, policies, principles, and methods involved in safety and accident prevention programs; programs of traffic safety and teacher driver education and training in high schools.

714-715. (WORKSHOP). PROBLEMS IN HEALTH, PHYSICAL EDUCATION AND RECREATION. 5 or 10 hours. *Mr. Bowen, Mr. Bowers, Mr. Gabrielsen, and Miss Lewis.*

A course of the workshop type dealing with the problems met in the development of a comprehensive program of health education, physical education, and recreation in school and school community. Special emphasis on problems identified by the student.

RECREATION

118. SOCIAL RECREATION. 3 hours. Stegeman Hall. *Mr. Lawson.*

Methods and materials in social recreation. Experience will be given in group planning and conducting social activities. Some laboratory experiences will be required.

384. INTERPRETATION OF RECREATION. 3 hours. Stegeman Hall. *Mr. Gabrielsen.*

Designed to familiarize the students with the recreation profession and the philosophy of recreation. A survey is made of the entire field of recreation. A study of national organizations is included.

385. PROBLEMS IN RECREATION. 3 hours. Stegeman Hall or South Campus. *The Staff.*

Consideration of needs and problems in recreation in rural areas, industry, hospitals, and armed forces.

386. CAMP LEADERSHIP. 3 hours. Stegeman Hall and South Campus. *Mr. Lawson and Miss Soares.*

Designed to give prospective camp counselors an understanding of the total camp program, duties and responsibilities of camp counselors. Techniques of camp leadership will be considered.

387. COMMUNITY RECREATION. 3 hours. Stegeman Hall. *Mr. Gabrielsen.*

Problems arising in organization, promotion and administration of community recreation programs. Observation of programs. The problems of coordinating the efforts of the schools, private agencies, and commercial recreation are studied.

512. PROBLEMS IN SCHOOL AND COMMUNITY RECREATION. Prerequisites: Four courses in education. Stegeman Hall or South Campus. *Mr. Gabrielsen and Miss Russell.*

Problems of school and community recreation pertaining to philosophy, program, facilities and leadership. This course will consider the school camp program.

THE COLLEGE OF BUSINESS ADMINISTRATION

JAMES EDWARD GATES, B.S., Ph.D., *Dean*

ROBERT TAYLOR SEGREST, B.S.C., M.S.C., *Associate Dean*

ORGANIZATION AND PURPOSE

The College of Business Administration was authorized by the Board of Trustees in 1912 and began operations in 1913. For many years it was called the School of Commerce. Since 1926 the College has been a member of the national standard-setting organization, The American Association of Collegiate Schools of Business.

The primary aims of the College are to provide a foundation of general culture, to broaden the viewpoint and develop sound thinking and, at the same time, to supply practical training for students who wish to prepare for business and commercial careers. This training includes many courses designed to provide an understanding of the history and general principles that underlie the present economic organization of society, as well as courses devoted to special subjects of a technical character. Fields covered are accounting, aeronautical administration, general business, economics, finance, industrial relations, marketing, public administration, insurance, real estate, secretarial studies, and retailing.

The curriculum of the College, however, is by no means restricted to purely economics and business courses. The requirement of the American Association of Collegiate Schools of Business is that at least 40 per cent of the credit hours required for graduation must be in liberal or cultural courses. A list of courses of this character, so essential in the training of a well rounded college graduate, will be found under Degree Requirements. The degree of Bachelor of Business Administration is awarded upon completion of the four-year course.

EQUIPMENT

The College is housed in a modern, commodious, and attractive building, constructed for the joint occupancy of the College of Business Administration and the School of Journalism. In 1948 a large addition was made to the building and the interior of the other portion was remodeled to provide necessary facilities for the increasing enrollment.

The College of Business Administration is equipped with the various types of machines common in business: adding machines, bookkeeping machines, calculators, mimeograph equipment, and dictating machines. In addition, International Business Machines Corporation equipment is available for instructional purposes in the laboratories. The latest types of this punched card accounting machinery are included, such as sorters, punches, and tabulators.

BUSINESS PRACTICE

The College of Business Administration with the cooperation of certain business firms has arranged for a few carefully selected students to obtain actual experience in business while still pursuing work toward the degree of Bachelor of Business Administration. Such students, upon the recommendation of the professor in charge of the major concentration group, may, with the approval of the Dean of the College and the College Executive Committee, be permitted to enter a cooperating business establishment in Atlanta or other cities and spend a quarter in learning first hand something of the operation of the business. This arrangement is limited to selected students within 55 hours of graduation. A maximum of fifteen hours of elective credit will be given for the quarter. While absent from the University the students will be under supervision of their major professors. Grades for this work will depend upon the report by the head of the business as well as upon such written reports as may be required from the student.

Application for permission to register for business practice (Business Administration 340) must be made through the student's major professor during the quarter preceding the planned registration. Students approved for this privilege will be required to register in the usual way and pay the prescribed fees.

ORGANIZATIONS

The national honor society for students of schools of business, Beta Gamma Sigma fraternity, has a chapter in practically every member institution of the American Association of Collegiate Schools of Business. The Alpha chapter of Georgia was the sixth established of the fifty-six chapters now active. The purpose of this fraternity is to encourage and reward scholarship and achievement. Every year about ten per cent of the seniors are awarded the Beta Gamma Sigma key.

Business Administration students are eligible for election to The Honor Society of Phi Kappa Phi, and those who have a large proportion of their work in liberal arts subjects, including economics, are eligible for election to Phi Beta Kappa.

The College also has chapters of the two leading professional organizations for students of schools of business, the Alpha Kappa Psi, and the Delta Sigma Pi, fraternities. Delta Sigma Pi awards annually a key to the most distinguished Business Administration graduate of the year, and Alpha Kappa Psi awards a gold key each year to the member of the senior class of the College of Business Administration who has the highest scholastic average for four years of college work, at least two years of which has been taken at the University of Georgia.

The Economics Society is an organization in which membership is open to all students enrolled in the College of Business Administration who have an average grade of "C" or better. Students enrolled in other colleges who are interested in economics are invited to become members.

BUREAU OF BUSINESS RESEARCH

The Bureau of Business Research was established in 1928.

The primary purpose of the Bureau is to promote the study, by faculty and staff, of business and economic conditions and problems, particularly

as they relate to Georgia and Georgia business. Service to the State's business community and to the University's faculty and students is a secondary but highly important function that includes training in research techniques, maintenance of a reading room and other help in securing data, consultation on specific problems, contract studies, and dissemination of information.

The Bureau's monthly bulletin, *Georgia Business*, is available without charge to residents of Georgia. In addition to feature articles on business and economic subjects, some fifteen indicators of local activity in more than twenty Georgia cities are presented regularly. Estimates of sales in all 159 Georgia counties are also reported monthly. An annual review number is issued in February.

Annually the Bureau issues or supplements its *Georgia Statistical Abstract*, a compilation of basic data on the State's population, government, and business. Periodically the Bureau adds to the series of volumes making up the *Southeastern Resources Handbook*, a major and continuing study of the natural and man-made resources of ten Southeastern states.

Other current projects include projections to 1980 of Georgia's population, employment, and income; compilation of a directory of manufacturing executives in the state; and the development of state and local economic indexes.

EXECUTIVE DEVELOPMENT PROGRAM

Beginning in 1951 the College of Business Administration inaugurated a program in executive development, designed to provide training for executive positions, of the type not ordinarily available in individual companies. In the summer of 1953 there was begun the first "live-in" program, four weeks in duration. Executives nominated by their own companies receive intensive training, designed to supplement existing company plans for on-the-job training.

SCHOLARSHIPS AND LOAN FUNDS

THE ATLANTA FEDERAL SAVINGS SCHOLARSHIP. Two awards of \$500 each are provided annually by the Atlanta Federal Savings and Loan Association to graduates of Atlanta and Fulton County high schools. One award goes to an entering freshman and the other to a senior. Both awards are based on financial need and student record.

THE CHEMSTRAND SCHOLARSHIP. An annual award of \$500 is provided by the Chemstrand Corporation to a selected senior.

THE DELTA AIR LINES SCHOLARSHIP. An annual award of \$300 is provided by Delta Air Lines to a selected junior majoring in aeronautical administration. It is available for both junior and senior years for the winner.

THE RAYONIER SCHOLARSHIP. An annual award of \$500 is provided by the Rayonier Corporation to a selected senior.

Loan funds are available for deserving students. Information on loan funds and scholarships is available from the Director of Placement and Student Aid.

GRADUATE STUDY

In the Graduate School of the University the degrees of Master of Business Administration and Master of Arts are offered.

The Master of Business Administration is a professional degree designed for students intending to enter directly into business. Requirements are flexible to meet the needs of graduates of liberal arts colleges as well as professional and technical schools. A program of four quarters of graduate work will be necessary for applicants holding the B.B.A. degree or its equivalent and from four to six quarters for applicants holding degrees in other fields. Neither a thesis nor a reading knowledge of a foreign language is required under this program. At least 15 hours of each student's program must be in courses numbered 800 and above.

Through special arrangement with the School of Journalism the degree of Master of Business Administration may be taken as a combination curriculum of the School of Journalism and the College of Business Administration, leading to the degree of A.B. in Journalism in four years, and the M.B.A. after an additional four quarters of study. This program is designed to aid those anticipating interpretative writing in economics and related fields, and also those who plan to work in the business of journalism. For details of this program see the bulletin of the School of Journalism.

Graduate training in research methods is provided by a program leading to the degree of Master of Arts. The requirements for the Master of Arts degree are the satisfactory completion of a program of study which consists of courses carrying a minimum credit value of 40 quarter hours plus the writing of an acceptable thesis. The courses taken must form a logical whole. Upon the option of the students' major department, a reading knowledge of French or German may be required of candidates for the degree. Another modern foreign language may be substituted for French or German upon certification by the major professor that the language proposed is more appropriate to the students' program. The minimum residence requirement for the degree Master of Arts is one academic year, or three quarters.

DEGREE REQUIREMENTS

A total of 187 quarter hours, exclusive of Physical Education 1-2 and Military Science 1-2 or Air Science 5-6, is required for the Bachelor of Business Administration degree. Physical Education 1-2 is required of all freshmen and sophomore students except veterans. Military Science 1-2 or Air Science 5-6 is required of all freshmen and sophomore male students except veterans. Business Administration 101-102-103 is required of all freshmen and Business Administration 395 is required of all seniors in the College.

TRANSFER STUDENTS

The specific credit for work done at other institutions which will apply toward the Bachelor of Business Administration degree is determined by the Dean of the College of Business Administration. The amount of such transfer credit shall not in any case exceed that allowed by the Director of Admissions of the University. Allowance of transfer credit by the Director of Admissions does not mean necessarily that all of such credit will be accepted toward a Bachelor of Business Administration degree.

Transfer students admitted for the Fall Quarter whose credits are re-

ceived in time for evaluation by the Director of Admissions before the beginning of the quarter, will receive a check-list from the Dean of the College of Business Administration showing completed curriculum requirements and the remaining courses necessary for the Bachelor of Business Administration degree.

General regulations governing transfer students are given on page 59.

ACADEMIC WORK LOAD

The normal load of work is 14 to 18 academic hours. For the conditions under which extra hours may be taken see page 68.

Except in special cases a student will not be permitted to schedule less than a normal load of 14 academic hours. A student who drops to less than 14 hours of work after the first five days of the quarter will normally receive a grade of WF on the course or courses dropped.

Students registered for extra hours may be permitted by the Dean to drop to a normal load, but if the course is dropped after the first five days of the quarter and the grade received is W, the student forfeits for the next quarter the right to schedule extra hours.

FRESHMAN AND SOPHOMORE REQUIREMENTS

Freshman Adviser: RYAN L. MURA

Sophomore Adviser: SAMUEL J. COBB

	Hours
Business Administration 101-102-103	3
English 101-102	10
Mathematics 100 or 101	5
Laboratory Science (See Item 4 below)	10
Social Studies or Foreign Language (See Item 5 below)	10
Political Science 101	5
History 111 or 112	5
English 121-122	10
Business Administration 108	4
Business Administration 109	4
Business Administration 110-111	10
Business Administration 151	5
Economics 105-106	10
Economics 133	5
Physical Education 1-2	0
Military Science 1-2 or Air Science 5-6 (for men)	0
	—
Total freshman and sophomore academic hours	96

JUNIOR AND SENIOR REQUIREMENTS

	Hours
Core Curriculum (Grades of C or better required—see Item 15 below)	30
Major (Grades of C or better required)	30
Arts and Sciences Senior Division Electives (See Item 18 below)	10
Business Administration 395	1
Electives	20
	—
Total junior and senior requirements	91

NOTE: The candidate for the Bachelor of Business Administration degree is responsible for meeting the requirements as listed.

EXPLANATION OF ABOVE REQUIREMENTS

1. Business Administration 101-102-103, Orientation to Business 3
Must be taken the freshman year. No student other than freshmen may receive degree credit for this course. Transfer students with sophomore and above standing will take 3 hours of electives instead of Business Administration 101-102-103.
2. English 101-102, Composition 10
Average grade of C (73) or better required.
3. Mathematics 100, Algebra, or 101, Trigonometry..... 5
Students who have insufficient high school preparation or who for other reasons are deficient in their Mathematics are required to take Mathematics 99, a remedial course in algebra, as a prerequisite.
4. Laboratory Science 10
One double course to be selected from the following:
Botany 121-122, Elementary Botany
Chemistry 121-122, General Chemistry
Geography 121-122, The Natural Environment
Geology 125-126, Elements of Geology
Physics 127-128, General Physics (Prerequisites: Mathematics 100-101)
5. Social Studies or Foreign Language 10
Students who elect Social Studies should take two courses from the following:
Anthropology 102, Man and His Culture
Geography 101, World Human Geography
Philosophy 104, Introduction to Philosophy
Psychology 101, Introduction to Psychology
Social Science 104, Contemporary Georgia
Sociology 105, Introduction to Sociology
Students who elect foreign language must take two courses in one language. A student continuing a language taken in high school will be placed in the appropriate course on the basis of placement tests.
6. Political Science 101, American Government 5
7. History 111 or 112, History of Western Civilization 5
8. English 121-122, Western World Literature 10
9. Business Administration 108, Business Communications 4
10. Business Administration 109, Business and Professional Speech 4
11. Business Administration 110-111, Principles of Accounting 10
12. Business Administration 151, Business Organization
and Management 5
13. Economic 105-106, Economic Principles and Problems 10
14. Economics 133, Economic Development of the United States 5
15. Core Curriculum:
Economics 312, Elementary Economic Statistics 5
Economics 326, Money and Banking 5
Economics 330, Business Finance 5
Economics 360, Principles of Marketing 5
Economics 386, Labor Economics 5
Business Administration 370, Business Law 5
16. Major Concentration 30
17. Business Administration 395, Personal Adjustment to Business..... 1
Offered Fall Quarter for Seniors only.

18. Arts and Science Senior Division Electives.....	10
May be selected from any course numbered 200 or above offered in the College of Arts and Sciences provided the course prerequisites have been satisfied.	
19. Electives	20
May be selected from any school or college of the University, provided the course carries credit of three or more quarter hours. Students who take advanced Military or Air Science will receive 18 hours of elective credit.	
Total Requirements	187
(Exclusive of Physical Education 1-2 and basic Military or Air Science).	

The courses listed above fall into two groups: junior division courses (courses with a number less than 200) and senior division courses (courses numbered 200 or above). A junior division student is one who has less than 85 academic hours and a senior division student is one who has 85 or more academic hours. A student should complete the junior division requirements before registering for senior division courses and senior division students must give priority at registration to all uncompleted junior division requirements. Certain required junior division courses such as Accounting may not be offered during the Summer Quarter. However, students who postpone such courses will not be permitted to make substitutions.

Although the minimum number of hours required for graduation is 187, it does not necessarily mean that the obtaining of 187 hours of credit will insure one a degree. There are certain other specific requirements which must be satisfied in order to qualify for the degree.

1. Senior Division Requirements:

- (a) 60 hours of senior division courses after reaching senior division standing, and
- (b) 45 hours, after senior division standing, of senior division courses in the College of Business Administration, while in residence in the College of Business Administration.
- (c) 30 hours of senior division courses must be taken in residence during the 3 quarters immediately preceding graduation, and
- (d) the grade in each course in the core curriculum must be C or better.

2. Major Concentration Requirements:

- (a) No course taken before a student has obtained senior division standing can count on his major regardless of the course number, and
- (b) all courses in the major concentration must be approved by the student's major professor or the dean, and
- (c) The grade in each course used for the major must be C or above.

3. Residence Requirements:

- (a) At least half of the courses constituting the major must be taken in residence, and
- (b) A minimum of 45 hours of senior division courses must be taken in residence in the College of Business Administration.

4. Scholastic Requirements:

- (a) An average of C with not more than 45 hours of D grades must be obtained.

5. Examination on the Constitutions:
 - (a) Examinations on the Constitution of the United States and that of the State of Georgia are required of all persons receiving a degree from the University unless exempted by credit in courses dealing with these Constitutions.
6. Examination on United States and Georgia History:
 - (a) Examinations on the history of the United States and of Georgia are required of all persons receiving a degree from the University unless exempted by credit in courses dealing with this history.

MAJOR CONCENTRATION GROUPS

ACCOUNTING

MR. HECKMAN, *Chairman*

Accounting knowledge is fundamental in business whether it be in retailing or wholesaling, manufacturing or selling. Internal control can be secured only through intelligent use of business statements and reports. The course in accounting is designed to give an understanding of the principles and practices in the control of business through records and reports, and likewise a knowledge of how to prepare these essential records and reports. Governmental regulations and taxation further emphasize the necessity of accounting knowledge.

Recommended courses for majors in accounting:	Hours
Business Administration 453, Accounting Theory, first course	5
Business Administration 454, Accounting Theory, second course	5
Business Administration 515, Income Taxation	5
Recommended courses for majors in private accounting:	
Business Administration 311, Introductory Cost Accounting	5
Business Administration 413, Advanced Cost Accounting	5
Business Administration 449, Analysis of Financial Statements	4
Business Administration 519, Advanced Taxation	5
Business Administration 555, Management Accounting	5
Business Administration 574, Internal Auditing	5
Business Administration 579, Functions of the Controller	4

The program in public accounting is designed to furnish adequate preparation for the public accountants examination to those students who plan to enter the professional field of public accounting. Public accounting includes the fields of auditing, system installations, and tax procedures. In order to complete preparation for the State CPA examination a fifth year of study devoted primarily to accounting subjects is recommended. The Georgia CPA law requires three years of practical experience prior to the issuance of a certificate, one year of which is cancelled for those graduates who have majored in accounting.

Recommended courses for majors in public accounting:	Hours
Business Administration 311, Introductory Cost Accounting	5
Business Administration 315, Punched-Card Equipment	5
Business Administration 371, Business Law, second course	5
Business Administration 517, C.P.A. Review	5
Business Administration 518, Municipal Accounting	5
Business Administration 519, Advanced Taxation	5
Business Administration 520, Punched-Card Accounting	5
Business Administration 556, Accounting Problems	5

Business Administration 557, Consolidated Statements	5
Business Administration 572, Auditing Principles	5
Business Administration 573, Auditing Problems	5
Business Administration 581, Accounting Systems	4

AERONAUTICAL ADMINISTRATION

MR. NACHTRAB, *Chairman*

In view of the expanding development of air transportation, there is a growing demand for college graduates trained in management or administration of aircraft manufacturing or transportation industries and as airport and airline managers. In preparation for a career in this field, this major concentration group offers courses covering aerial navigation, meteorology, aircraft and principles of flight and Civil Air Regulations as well as the business administration aspects of this industry. The student will also receive the same general training in business and economics as majors in other special groups.

	Hours
Business Administration 320, Commercial Aviation	5
Business Administration 321, Aerial Navigation	5
Business Administration 322, Civil Air Regulations and Meteorology	5
Business Administration 323, Aircraft Powerplants	5
Business Administration 325, Aircraft and Theory of Flight	5
Business Administration 327, Airport Management and Operation	5
Economics 475, Economics of Transportation	5
Economics 585, Personnel Administration	5

ECONOMICS

MR. SMITH, *Chairman*

An understanding of the economic realities of today's world has come to be an essential for the effective management of both private and public enterprise. Leaders in both of these important areas must have an appreciation of the impact of their actions on the nation as a whole, and also an appreciation of the significance of general economic developments for the decisions that they make. Only through intelligent planning and coordination based upon an understanding of fundamental economic relationships can our nation adequately fulfill its responsibilities both at home and abroad. The program of training in economics is an outgrowth of this basic need.

	Hours
Economics 400, Early Economic Systems	5
Economics 406, Advanced Economic Theory	5
Economics 434, Public Finance	5
Economics 436, Business Cycles	5
Economics 437, Comparative Economic Systems	5
Economics 444, Government and Business	5
Economics 450, Monetary Policy	5
Economics 455, Contemporary Economic Problems	5
Economics 475, Economics of Transportation	5
Economics 480, International Trade and Finance	5
Economics 489, The Labor Movement	5
Economics 577, Public Utilities	5

FINANCE

MR. DINCE, *Chairman*

The major in finance has been designed to give the student an intimate knowledge of the relative investment merits of the various classes of corporate securities and the nature of our complex banking and financial structure. Modern industry is characterized by the predominance of the corporate form of business enterprise and by the emphasis upon financial management. Careful study is essential for a proper understanding of the financial complexities of the present day corporations.

Training is provided to equip the student to enter occupations requiring a knowledge of the securities market, corporation finance, investment banking, trusts, estate building, building and loan associations, and investment companies. Financial problems of the individual are also stressed to enable him to do a better job of managing his money, to think clearly, and to move forward to financial independence.

	Hours
Economics 430, Corporate Financial Policy.....	5
Economics 431, Investments	5
Economics 432, Fundamentals of Investment Banking.....	5
Economics 434, Public Finance	5
Economics 435, State and Local Public Finance.....	5
Economics 436, Business Cycles	5
Economics 450, Monetary Policy	5
Economics 480, International Trade and Finance.....	5
Economics 488, Securities Market	5
Economics 533, Credits and Collections.....	5
Business Administration 393, Real Estate Finance.....	5
Business Administration 449, Financial Statements	4

GENERAL BUSINESS

MR. DAVIDS, *Chairman*

The major in general business is designed for those students who wish to obtain a general rather than a specialized training in business administration. It is especially appropriate for those who will eventually become owners or managers of small business concerns. In this field emphasis is placed upon a comprehensive view of business as a whole rather than upon some one of the specialized functions in business administration. This gives the student a broader and more extensive approach to business problems than that which is afforded by intensive study in a specialized field.

The method of accomplishing this broader training is that of selecting certain basic courses from each of the specialized programs. This gives the student an appreciation of the contribution of the specialized groups to the going business enterprise and shows how these specialized functions must be brought together and organized into a working system in order to operate effectively. The courses listed as a part of this major concentration provide useful training for the prospective businessman regardless of the type of business entered.

	Hours
Economics 334, Personal Finance	5
Economics 430, Corporate Financial Policy.....	5
Economics 487, The Commodity Exchange	5
Economics 488, Securities Market	5

Economics 490, Labor Legislation	5
Economics 533, Credits and Collections	5
Business Administration 352, Industrial Operations	5
Business Administration 371, Business Law, Second course	5
Business Administration 387, Life Insurance	5
Business Administration 388, Property Insurance	5
Business Administration 390, Real Estate Principles	5
Business Administration 515, Income Taxation	5
Business Administration 595, Administrative Practices	5
Business Administration 599, Business Policy	5

INDUSTRIAL RELATIONS AND PERSONNEL ADMINISTRATION

MR. SEGREST, *Chairman*

One of the biggest tasks confronting our economy today is the harmonious coordination of the efforts of many individual workers within industrial society. Achievement of more satisfactory working conditions, steadier employment, better adjustment of labor disputes, and resulting increases in productivity and real income for all, are vital both to the individual business unit and to society. Intelligent management of labor means both reduced costs for business and more efficient utilization of the human resources of our nation. It involves an understanding of the unions with which management deals, the nature and issues of collective bargaining, and the relationship between unorganized workers and management.

This program is not primarily directed toward the professional training of students interested in the fields of labor and personnel. The growth of the labor movement, the increase of public interest and control of industrial relations, and the strength of organized labor groups in our society make many of the problems of labor relations urgent matters of public policy. Specialization in this field is viewed as part of the equipment of the citizen as well as of the executive and only secondary as training for specialized employment.

	Hours
Economics 380, Industrial Sociology	5
Economics 442, Public Personnel Administration	5
Economics 444, Government and Business	5
Economics 489, The Labor Movement	5
Economics 490, Labor Legislation	5
Economics 491, Collective Bargaining	5
Economics 585, Personnel Administration	5
Business Administration 506, Social Insurance	5
Business Administration 582, Employment Methods: Testing	3
Business Administration 586, Job Evaluation	3
Business Administration 587, Work and Efficiency	3
Business Administration 592, Interviewing	2
Business Administration 593, Work Measurement	3
Business Administration 594, Merit Rating	2
Business Administration 595, Administrative Practices	5

INSURANCE

MR. CHARLES, *Chairman*

The program of study in the insurance concentration is designed to give the student a broad understanding of the place and functions of risk-bearing institutions in a private economy, the opportunity for professional

advancement in the insurance field, and to give the future business executive some basic principles to guide him in setting up an adequate insurance program. Insurance has recently assumed the status of a profession and the concentration is designed to enable one to achieve professional competency as well as to become a more intelligent purchaser of insurance.

	Hours
Business Administration 371, Business Law, second course	5
Business Administration 385, Casualty Insurance	5
Business Administration 387, Life Insurance	5
Business Administration 388, Property Insurance	5
Business Administration 502, Property Insurance Problems	5
Business Administration 503, Casualty Insurance Problems	5
Business Administration 505, Insurance Programming and Planning	5
Business Administration 506, Social Insurance	5
Business Administration 509, Insurance Agency Management	5
Economics 431, Investments	5
Economics 430, Corporate Financial Policy.....	5
Economics 585, Personnel Administration	5
Any two Real Estate courses	10

MARKETING

MR. TROELSTON, *Chairman*

Concentrated study of marketing is two-fold in purpose; first, it trains students for positions in sales organizations, in market research, and in other fields related to distribution; and, second, it provides appraisal of the market system's effectiveness in meeting the broad demands of social welfare.

Emphasis has been placed in recent years upon the importance of market costs as compared with those of production. Large scale production, regional specialization in production, and the development of metropolitan areas far removed from sources of supply have necessitated a complex marketing machinery. An understanding of marketing problems for the successful operation of individual businesses is necessary so that methods may be improved and selling costs controlled.

	Hours
Economics 465, Marketing Research and Analysis	5
Economics 466, Economics of Consumption	5
Economics 475, Economics of Transportation	5
Economics 480, International Trade and Finance	5
Economics 487, The Commodity Exchange	5
Economics 488, Securities Market	5
Economics 591, Applied Statistics	5
Business Administration 560, Principles and Problems of Retailing.....	5
Business Administration 563, Advertising and Display	5
Business Administration 564, Sales Management	5
Business Administration 570, Wholesaling	5
Business Administration 571, Marketing Management	5
Business Administration 578, Purchasing	5

PUBLIC ADMINISTRATION

MR. GATES, *Chairman*

With expanding governmental social services and regulatory bodies, the need for personnel trained in public administration becomes greater. To provide this basic training, the Political Science Department and the

College of Business Administration jointly offer a major concentration in public administration for those who wish to prepare to enter government service (local, state, or federal). It is recommended that those students who choose this major select, as their free electives, additional advanced courses in political science.

	Hours
Economics 434, Public Finance	5
Economics 435, State and Local Public Finance	5
Economics 437, Comparative Economic Systems	5
Economics 441, Principles of Public Administration	5
Economics 442, Public Personnel Administration	5
Economics 443, Public Financial Administration	5
Economics 444, Government and Business	5
Economics 490, Labor Legislation	5
Economics 492, American Administrative Law	5
Economics 577, Public Utilities	5
Economics 591, Applied Statistics	5

REAL ESTATE

Mr. BEATON, *Chairman*

The real estate industry embraces the development, financing and marketing of the land resources of the nation. Businessmen bring these resources into use as developers, as owners or managers of real estate enterprises, as brokers and traders, and as real estate financiers. College trained men are in demand for professional type service in property development, brokerage, appraising, property management, and mortgage lending. An understanding of real estate matters is essential to an executive in any type of business since he is likely to be faced, at some time, with problems of land development, site selection, financing, leasing, and land purchase.

	Hours
Business Administration 371, Business Law, second course	5
Business Administration 390, Real Estate Principles	5
Business Administration 391, Real Estate Brokerage	5
Business Administration 392, Real Estate Property Management	5
Business Administration 393, Real Estate Finance	5
Business Administration 503, Property Insurance Problems	5
Business Administration 504, Real Estate Appraisal	5
Business Administration 515, Income Taxation	5
Business Administration 519, Advanced Taxation	5
Economics 431, Investments	5

RETAILING

Mr. EAKIN, *Chairman*

This major concentration is designed to train students in a field which is constantly demanding college graduates for executive positions. It provides a broad background of knowledge, attitudes and skills that are basic to a professional career in the retailing field. The curriculum includes a study of the major aspects of retail store organization and management, technique of sales promotion, research methods, and merchandising techniques. In addition the more specialized areas of advertising and display and textiles are available for the interested student.

To make the retailing major more meaningful, professional courses should

be paralleled by work experience whenever feasible. With this view in mind superior students within 55 hours of graduation will be encouraged to take Business Administration 340, Business Practice, so that they may enter a business establishment for the purpose of obtaining practical supervised retail experience.

	Hours
Business Administration 560, Principles of Retailing.....	5
Business Administration 562, Retail Merchandising.....	5
Business Administration 563, Advertising and Display.....	5
Business Administration 564, Sales Management	5
Business Administration 565, Retail Administration and Policy.....	5
Business Administration 568, Retail Merchandise Information.....	5
Economics 465, Marketing Research and Analysis.....	5
Economics 466, Economics of Consumption.....	5
Journalism 578, Advertising Copy Writing.....	5
Journalism 578, Retail Advertising Copy and Sales Promotion.....	5

SECRETARIAL STUDIES

MR. CUFF, *Chairman*

The purpose of secretarial studies is to equip students with secretarial skills and a broad background to qualify them for positions in government, business, and the professions.

Students majoring in this field should take Business Administration 300 a-b-c, Shorthand, and Business Administration 303, 304, and 305, Typewriting, in residence during their junior year; Business Administration 306, Transcription, Business Administration 307, Office Management, and Business Administration 310, Secretarial Office Practice, in residence during their senior year. Majors who receive transfer credit in Shorthand, Typewriting, or Transcription must pass comprehensive tests during the last quarter before graduation as a requirement for the B.B.A. degree.

Secretarial studies majors who desire to teach commercial subjects should select their electives from among those subjects in the field of Education that will qualify them for teaching certificates.

	Hours
Business Administration 300 a-b-c, Shorthand	9
Business Administration 303-304-305, Typewriting	6
Business Administration 306, Transcription	3
Business Administration 307, Office Management	3
Business Administration 310, Secretarial Office Practice	5
Business Administration 315, Punched-card Equipment	5

COMBINATION COURSE IN BUSINESS ADMINISTRATION AND LAW

Business training in general economics, accounting, corporate organization, finance, taxation, labor and other specialized fields has become important to the lawyer. Many law firms find their practice largely confined to acting as consultants to business executives.

It would be an ideal arrangement if prospective lawyers could pass first through a school of business before taking up the study of law. Since such a course normally requires seven years, involving a greater expenditure of time and money than students can usually afford, the College of Business

Administration and the School of Law have a combined curriculum making possible completion of both courses in eighteen quarters.

Students taking this combination will complete the regular freshman and sophomore program of the College of Business Administration. In the junior year the student will complete the core curriculum (except Business Administration 370, Business Law), and will also take a major in one of the concentration groups, making a total of 96 hours in business and economic subjects. It is thus possible for him to get specialized training in a selected business administration field before entering the School of Law. During the senior year the student will substitute the first year of work in the School of Law for his business administration requirements.

The degree of Bachelor of Business Administration may then be conferred in the combined program at the end of the fourth year's work on those students who successfully complete all of the work of the first year in the School of Law (with minimum credit of 187 hours, exclusive of basic military and physical education) and who are certified by the Dean of the School of Law as being eligible for admission to the second year in that School.

Three quarters in residence, including 45 hours in courses numbered 200 or above, in courses in the College of Business Administration, are required after admission to senior division standing.

CURRICULUM IN BUSINESS ADMINISTRATION AND LAW

FRESHMAN AND SOPHOMORE YEARS

Same as required for the regular Bachelor of Business Administration degree. (See page 356).

JUNIOR YEAR

	Hours
Economics 312, Elementary Economic Statistics	5
Economics 326, Money and Banking	5
Economics 330, Business Finance	5
Economics 360, Principles of Marketing	5
Economics 386, Labor Economics	5
Major	30
	—
Total	55

SENIOR YEAR

Satisfactory completion of the first year of work in the School of Law and a minimum of 187 academic hours.

COMBINATION IN BUSINESS ADMINISTRATION AND DAIRY PLANT MANAGEMENT

MR. HENDERSON, *Adviser*

In cooperation with the Dairy Department, College of Agriculture, the College of Business Administration offers a major in Dairy Plant Management for those students who wish to combine technical knowledge of the dairy manufacturing industry with business administration training. This is a four year special program leading to the degree of Bachelor of Business Administration. Students selecting this concentration should begin the special curriculum during the freshman year.

CURRICULUM IN BUSINESS ADMINISTRATION AND DAIRY PLANT MANAGEMENT

MR. HENDERSON, *Adviser*

FRESHMAN AND SOPHOMORE YEARS

	Hours
Business Administration 101-102-103	3
English 101-102	10
Mathematics 100 or 101	5
Physical Science 101	5
History 111 or 112	5
Political Science 101	5
Chemistry 121-122	10
English 121-122	10
Business Administration 108	4
Business Administration 109	4
Business Administration 110-111	10
Business Administration 151	5
Economics 105-106	10
Economics 133	5
Elective	5
Physical Education 1-2	0
Military or Air Science	0
Total freshman and sophomore academic hours	96

JUNIOR AND SENIOR YEARS

	Hours
Bacteriology 350	5
Economics 312	5
Economics 326	5
Economics 330	5
Economics 360	5
Economics 386	5
Business Administration 370	5
Dairy 350	5
Dairy 389	5
Dairy 394	5
Dairy 395	5
Dairy 396	5
Dairy 399	5
Business Administration 352	5
Business Administration 371	5
Business Administration 560	5
Business Administration 564	5
Business Administration 578	5
Business Administration 395	1
Total junior and senior academic hours	91

COMBINATION IN BUSINESS ADMINISTRATION AND INDUSTRIAL GEOGRAPHY

MR. PRUNTY, *Adviser*

This major concentration trains students in the fundamentals of economics, geography, and allied fields upon which the expanding field of area planning is based. Its purpose is to provide the background requisite for careers with city, county, metropolitan, and regional planning commissions, private consultative planning and real property development firms, industries concerned with urban-industrial developmental problems—such as the railroads; market analysis consultants, and commercial and governmental mapping agencies. This curriculum also provides a superior basis for graduate work in area planning or economic geography.

CURRICULUM IN BUSINESS ADMINISTRATION AND INDUSTRIAL GEOGRAPHY

FRESHMAN AND SOPHOMORE YEARS

	Hours
Business Administration 101-102-103	3
English 101-102	10
Mathematics 100 or 101	5
Political Science 101	5
History 111 or 112	5
Botany 121-122 or Geology 125-126	10
English 121-122	10
Geography 121-122	10
Economics 105-106	10
Economics 133	5
Business Administration 108	4
Business Administration 109	4
Business Administration 110-111	10
Business Administration 151	5
Physical Education 1-2	0
Military or Air Science (for men)	0
Total freshman-sophomore academic hours	96

JUNIOR AND SENIOR YEARS

	Hours
Economics 312	5
Economics 326	5
Economics 330	5
Economics 360	5
Economics 386	5
Business Administration 370	5
Geography 101	5
Geography 350	5
Geography 358	5
Geography 420	5
Geography 436	5
Geography 459	5
Geography 460	5
Geography 461	5

Economics 465	5
Economics 475	5
Economics 477	5
Economics 480	5
Business Administration 395	1
	<hr/>
Total junior-senior academic hours	91

MAJOR IN ECONOMICS IN THE BACHELOR OF ARTS DEGREE

Applicants for the Bachelor of Arts degree upon entering the Junior Class are required to select a major division, from which at least eight courses must be taken. One of the major divisions that may thus be elected is the division of Social Sciences, and Economics is one of the departments in this division. For A.B. students who desire to major in Economics the concentration group in Economics is provided. From this group, with the approval of the major professor and the Dean of the College of Arts and Sciences, the major program will be arranged.

COURSES OF INSTRUCTION

(Commerce-Journalism Building, North Campus)

Unpredictable circumstances may necessitate the temporary withdrawal of some of the announced courses. The University reserves the right to withdraw any course for which the registration is not sufficiently large, and to offer courses not here listed should sufficient demand arise and teaching facilities and personnel be available.

Unless otherwise indicated all courses meet five hours a week and carry five hours credit.

BUSINESS ADMINISTRATION

7. PERSONAL TYPING. No academic credit. (Five periods a week). *The Staff*.

An introductory course in typewriting designed to teach in a minimum of time typewriting for personal use.

101-102-103. ORIENTATION TO BUSINESS. 3 hours. (One period a week for three quarters). *Mr. Mura*.

Development of the attitudes and skills necessary for success in college; survey of the business world as a whole; study of the separate specialized areas and their educational and personal requirements. Required of all freshmen in the College of Business Administration. (See Item 1, page 357).

108. BUSINESS COMMUNICATIONS. 4 hours. Prerequisites: English 101-102. *The Staff*.

Qualities and principles of effective business letter writing; the role of business reports and their types; collecting, organizing, and interpreting data; written presentation; practice in writing business letters and reports.

109. BUSINESS AND PROFESSIONAL SPEECH. 4 hours. *Mr. Fear*.

Speech as a practical, manageable tool; improvement of individual proficiency in oral communication; speech practice in situations similar to those encountered regularly in business and industry.

110. PRINCIPLES OF ACCOUNTING. First Course. *The Staff*.

An introduction to the fundamental principles and practices of accounting; balance sheet and profit and loss statements; theory of debits and credits as applied to business transactions.

111. PRINCIPLES OF ACCOUNTING. Second Course. Prerequisite: Business Administration 110. *The Staff*.

Application of accounting principles to problems of business.

151. PRINCIPLES OF ORGANIZATION AND MANAGEMENT. *The Staff.*

An introductory study of organization theory; principles of communication, group dynamics, leadership; structure and internal functions of the typical business concerns; systems analysis and production management.

300 a-b-c. SHORTHAND. 9 hours. (Credit given only upon completion of 300c). Five periods a week for three quarters. *Mr. Cuff and the Staff.*

Study of the theory of Gregg shorthand, development of skill in reading and writing from printed shorthand, dictation of a general commercial nature, and transcribing into correct, acceptable form.

Students who have had Gregg shorthand in high school may register for Business Administration 300c by passing a test on the material covered in Business Administration 300 a-b. In such cases credit is given only for work done at the University.

303-304-305. TYPEWRITING. 6 hours. (Credit given only upon completion of 305). Five periods a week for three quarters. *Mr. Cuff and the Staff.*

Introductory and advanced typewriting; business letters and forms; tabulation and manuscript writing; stencil work and other typewriting problems of the business office.

Students who have had typewriting in high school may register for Business Administration 305 by passing a test on the material covered in Business Administration 303 and 304. In such cases credit is given only for work done at the University.

306. TRANSCRIPTION. 3 hours. Prerequisites: Business Administration 300c and 305. *Mr. Cuff and Staff.*

Advanced secretarial course to develop greater competency in recording dictation and transcribing.

307. OFFICE MANAGEMENT. 3 hours. *Mr. Cuff and Staff.*

Principles of scientific management and the responsibilities of office management; office equipment; office records and reports; filing; supervision; selection and training; office methods and procedures.

310. SECRETARIAL OFFICE PRACTICE. Prerequisites: Business Administration 300 a-b-c, 303, 304, and 305. (300c and 305 may be taken concurrently). *Mr. Cuff.*

Advanced secretarial course; secretarial traits and duties; filing; operation of dictating, duplicating, calculating, and other office appliances.

311. INTRODUCTORY COST ACCOUNTING. Prerequisite: Business Administration 111. *The Staff.*

Methods of ascertaining and distributing costs in manufacturing concerns emphasizing the securing of unit costs under the order and process methods.

315. PUNCHED-CARD EQUIPMENT. *Mr. Homick.*

Introductory course in the operation and use of punched-card equipment. Especially recommended for majors in accounting and secretarial studies.

320. COMMERCIAL AVIATION. *Mr. Nachtrab.*

History and development of commercial aviation; aircraft types; airways and their aids; governmental regulations; general principles governing airline administration.

321. AERIAL NAVIGATION. *Mr. Nachtrab.*

Aerial maps and charts, course plotting, navigation methods, including pilotage, dead reckoning and radio, navigation instruments.

322. CIVIL AIR REGULATIONS AND METEOROLOGY. *Mr. Nachtrab.*

Civil air regulations, covering certification of pilots and airplanes, pilot regulations, flight rules, and air traffic rules; meteorology, covering theory of weather, weather maps, teletype sequence reports, forecasting, and flight planning.

323. AIRCRAFT POWER PLANTS. *Mr. Nachtrab.*

Types, construction, theory and operation of aircraft engines including study of electrical systems and attendant accessories such as magnetos, generators and batteries.

325. AIRCRAFT AND THEORY OF FLIGHT. *Mr. Nachtrab.*

Principles of aerodynamics and physical laws related to aircraft in flight; airfoils and forces acting upon them; wing types and characteristics; propeller theory and reaction propulsion; aircraft types and construction.

327. AIRPORT MANAGEMENT AND OPERATION. *Mr. Nachtrab.*

Problems of airport management, development; survey of civil air regulations governing and regulating airport operations; traffic control; city and county regulations, public relations and advertising.

340. BUSINESS PRACTICE. Maximum credit 15 elective hours. Prerequisite: Three years of college work leading to a B.B.A. degree.

A few superior students are permitted in their senior year to enter business establishments for the purpose of obtaining practical experience. The period of absence is limited to one quarter.

352. INDUSTRIAL OPERATIONS. Prerequisite: Business Administration 151. *The Staff.*

The general organization and management of an industrial plant. Process analysis, plant location, plant layout, purchasing, materials handling, quality control, maintenance and production control systems.

370. BUSINESS LAW. First course. (Not open to students taking the combined LL.B.-B.B.A. degrees). *Mr. Charles.*

Contracts, sales contracts, uniform sales law, negotiable instruments, bailments, common and public carriers, and agency.

371. BUSINESS LAW. Second course. Prerequisite: Business Administration 370. (Not open to students taking the combined LL.B.-B.B.A. degrees). *Mr. Charles.*

Employer and employee; partnerships, formation, operation and dissolution; corporations; insurance, life, property, and automobile; real estate mortgages, landlord and tenant, wills, and bankruptcy.

385. CASUALTY INSURANCE. *Mr. Charles and Mr. Cobb.*

Insurance covering losses due to accidental damage or injury to property or persons; workmen's compensation; health and accident; automobile public liability; burglary; fidelity and dishonesty; personal liability; and other types of losses.

387. LIFE INSURANCE. *Mr. Charles and Mr. Cobb.*

The uses of life insurance, mortality tables, types of policies, reserves and policy values, organization of life insurance companies, group and industrial insurance, legal interpretation of policies, state supervision of life insurance.

388. PROPERTY INSURANCE. *Mr. Charles and Mr. Cobb.*

The functions of property insurance; standard policies; settlement of losses; marine and inland marine; automobile title; credit; other forms of property insurance.

390. REAL ESTATE PRINCIPLES. *Mr. Beaton.*

A consideration of the general principles of property utilization, the law dealing with ownership, transfer of title, and liens; the appraisal process, determinants of values, the real estate cycle, management and salesmanship, and regulatory legislation.

391. REAL ESTATE BROKERAGE. Prerequisite: Business Administration 390. *Mr. Beaton.*

Organizing and operating a real estate office, the management and sales problems of a real estate broker.

392. REAL ESTATE PROPERTY MANAGEMENT. Prerequisite: Business Administration 390. *Mr. Beaton.*

The principles and policies relating to the management of houses, stores and office buildings; collections; maintenance; services; records; tenant relationships.

393. REAL ESTATE FINANCE. Prerequisite: Business 390 or consent of the instructor. *Mr. Beaton.*

Institutions, techniques, and instruments of real estate finance; source of funds; loan contracts; principles of mortgage risk analysis; the role of government agencies in the mortgage lending field.

395. PERSONAL ADJUSTMENT TO BUSINESS. 1 hour. *Mr. Gates.* (Required of all candidates for the B.B.A. degree). Fall quarter only.

Methods of selecting and obtaining a suitable business position; proper techniques of making application, preparing for interview, and initial conduct on the job. Outside business men will give occasional talks on topics of vocational information.

413. ADVANCED COST ACCOUNTING. Prerequisite: Business Administration 311. *The Staff.*

A detailed study of cost accounting theories and their application to standard cost systems, replacements, and budgets.

449. ANALYSIS OF FINANCIAL STATEMENTS. 4 hours. Prerequisite: Business Administration 111. *The Staff.*

Techniques of analysis of balance sheets and statements of profits and loss, and the interpretation of findings; statements of various industries and utilities with interpretations based upon a knowledge of the particular industry.

453. ACCOUNTING THEORY. First Course. Prerequisite: Business Administration 311. *The Staff.*

Development and importance of accounting theories; application to problems incident to partnership and corporation formation, operation and liquidation.

454. ACCOUNTING THEORY. Second course. Prerequisite: Business Administration 311. *The Staff.*

A continuation of Business Administration 453. Application of the theories of valuation to normal financial statements and interpretations of these statements.

502. CASUALTY INSURANCE PROBLEMS. Prerequisite: Business Administration 385. *Mr. Charles.*

Advanced study of all types of casualty insurance; automobile, professional liability, products liability, and others.

503. PROPERTY INSURANCE PROBLEMS. Prerequisite: Business Administration 388. *Mr. Cobb.*

Practical application of property insurance policies to specific insurance problems; survey and insurance counseling for complex problems.

504. REAL ESTATE APPRAISAL. Prerequisite: Business Administration 390 or consent of the instructor. *Mr. Beaton.*

Technique and art of appraising land and buildings; cost, income, and market approach to valuation; case studies and field trips.

505. INSURANCE PLANNING AND PROGRAMMING. *Mr. Charles and Mr. Cobb.*
Private life insurance programs correlated to social security or other group coverages; retirement programs.

506. SOCIAL INSURANCE. *Mr. Cobb.*

Social security; public retirement systems; group retirement plans of private business.

507. INSURANCE AGENCY MANAGEMENT. Prerequisite: Business Administration 387 or 388. *Mr. Charles.*

Status of the insurance agency; management; aids from the head office; hiring and training sub-agents; sales policies; promotion; sources of contracts; duties to the principal in claims settlements; commissions; records.

515. INCOME TAXATION. Prerequisite: Business Administration 111. *The Staff.*

Interpretation of federal and state income tax laws with practice material requiring application of these laws to the returns of individuals, partnerships, and fiduciaries.

517. C.P.A. REVIEW. Prerequisite: Business Administration 557. *The Staff.*

General review of all accounting courses preparatory to the state C.P.A. examinations. Open only to students planning to take the C.P.A. examination.

518. MUNICIPAL ACCOUNTING. Prerequisite: Business Administration 111. *The Staff.*

Accounting problems and procedures pertaining to state and local governments and their institutions; governmental classification of receipts and expenditures; preparation of reports; budgeting and operation of fund accounts.

519. ADVANCED TAXATION. Prerequisite: Business Administration 515. *Mr. Heckman.*

Continuation of Business Administration 515 with emphasis upon corporation income tax laws, social security taxes, gift taxes, and estate taxes.

520. PUNCHED-CARD ACCOUNTING. Prerequisite: Business Administration 111 and 315. *The Staff.*

Application of punched-card techniques to specialized accounting problems of commerce and industry, such as billing, payrolls, cost analysis, inventory control, sales analysis, etc.

555. MANAGEMENT ACCOUNTING. Prerequisites: Business Administration 453 and 454. *Mr. Heckman.*

The uses of accounting data by management in planning, budgeting, and forecasting.

556. ACCOUNTING PROBLEMS. Prerequisite: Business Administration 311. *The Staff.*

Application of accounting theory to specialized problems of industry, such as consignments, insurance, receiverships, and estates; application of funds.

557. CONSOLIDATED STATEMENTS. Prerequisite: Business Administration 311. *The Staff.*

Development of special accounting problems incident to corporate organizations in the preparation of consolidated statements, consolidations, and mergers.

560. PRINCIPLES OF RETAILING. Prerequisite: Economics 360. *Mr. Eakin.*
The basic background concepts and analytical tools of the field; physical plant; personnel; inventory; pricing; buying; sales promotion; control.

562. RETAIL MERCHANDISING. Prerequisite: Business Administration 560. *Mr. Eakin.*

Product buying and selling; merchandise inventory management and control; profit analysis; budget planning; organization principles; research in retailing.

563. ADVERTISING AND DISPLAY. Prerequisite: Economics 360. *Mr. Eakin.* Advertising procedures; organization of publicity departments; research media; internal sales promotion; campaigns display techniques.

564. SALES MANAGEMENT. Prerequisite: Economics 360. *Mr. Eakin* and *Mr. Troelston.*

Problems and cases of manufacturers and dealers in the sale of consumer and industrial goods; selection, training, organizing, and directing salesmen.

565. RETAIL ADMINISTRATION AND POLICY. Prerequisite: Business Administration 560. *Mr. Eakin.*

The development of a management philosophy; analysis and solution of retail problems; integration of retailing functions; development of policies for managing these functions.

568. (HOME ECONOMICS) RETAIL MERCHANDISE INFORMATION. Prerequisite: Economics 360 or consent of instructor. *Miss Armstrong.*

Study of textile products for apparel and household use; factors related to buying, displaying, advertising, and selling textile fabrics and ready-to-wear.

570. WHOLESALING. Prerequisites: Economics 360. *Mr. Troelston* and *the Staff.*

Types and classes of wholesale institutions; organization and management with emphasis on selected product groups and trade areas.

571. MARKETING MANAGEMENT. Prerequisite: Economics 360. *Mr. Troelston.*

Management of marketing functions in their relations to one another and to the environment of the firm.

572. AUDITING PRINCIPLES. Prerequisite: Business Administration 454. *The Staff.*

Principles governing audits and audit procedures; qualifications and responsibilities of the public accountant.

573. AUDITING PROBLEMS. Prerequisite: Business Administration 572. *The Staff.*

Application of auditing theories and principles to audit problems with emphasis upon separation of audit working papers and reports.

574. INTERNAL AUDITING. Prerequisite: Business Administration 454. *Mr. Baker.*

Principles of internal control and internal auditing as they apply to the internal auditor: types of internal audits; audit reports; fraud; standards.

578. PURCHASING. Prerequisites: Economics 360. *Mr. Troelston* and *the Staff.*

Principles and practices used by manufacturers and other types of business concerns in the purchasing of equipment, raw materials, parts, and supplies.

579. FUNCTIONS OF THE CONTROLLER. 4 hours. Prerequisite: Business Administration 311. *The Staff.*

Principles and functions of the controller and his office; forecasting; budget preparation; variances and allocation of responsibility; application of principles of management psychology to remedying weaknesses.

581. ACCOUNTING SYSTEMS. 4 hours. Prerequisite: Business Administration 454. *The Staff.*

Accounting systems used in various businesses; principles of internal check; organization and installation of an accounting system.

582. (PSYCHOLOGY) EMPLOYMENT METHODS: TESTING. 3 hours. Prerequisite: Economics 312 or Mathematics 356. *Mr. Gray.*

Tests and interpretation of test scores in reference to specific employment situations; values and limitations of tests; test validation in new situations.

586. (PSYCHOLOGY) JOB EVALUATION. 3 hours. Prerequisite: Economics 312 or Mathematics 356. *Mr. Gray.*

Various methods of job analysis and job evaluation; advantages and disadvantages of the various systems in relation to the type of work situations.

587. (PSYCHOLOGY) WORK AND EFFICIENCY. 3 hours. Prerequisite: Economics 312 or Mathematics 356. *Mr. Gray.*

Human aptitudes in relation to work and equipment design; lighting, noise, ventilation, motor activities, body orientation, machine controls, etc. in relation to human limitations.

592. EMPLOYMENT METHODS: INTERVIEWING. 2 hours. Prerequisite: Economics 312 or Mathematics 356. *Mr. Gray.*

Employment interviewing and practice in both interviewing and being interviewed; limitations of interviewing procedure.

593. WORK MEASUREMENT. 3 hours. Prerequisite: Economics 312 or Mathematics 356. *Mr. Gray.*

Methods of measuring work; factors which affect the duration of work; principles of work methods and job layouts.

594. MERIT RATING. 2 hours. Prerequisite: Economics 312 or Mathematics 356. *Mr. Gray.*

Ways of determining the worth of employees on jobs where quantitative measurement is impossible; methods of determining traits for rating, of weighting traits, and of rating traits.

595. ADMINISTRATIVE PRACTICES. *Mr. Smith.*

Individual and group behavior in organizations; nature and crucial importance of communications, employee motivations, and group dynamics; development of greater effectiveness in the business organization.

599. BUSINESS POLICY. Prerequisites: Core Curriculum. *The Staff.*

Capstone course utilizing all of the major fields in Business Administration to allow the senior student to apply these skills in situations dealing with the firm as a whole.

ECONOMICS

105. PRINCIPLES OF ECONOMICS. *The Staff.*

Description and analysis of the economic organization of modern society with a brief introduction to the theory and value of distribution.

This course is required of all students in the College of Business Administration and A.B. majors in Economics. It is elective as a social science for all other students and may be taken without Economics 106.

106. PROBLEMS OF ECONOMICS. Prerequisite: Economics 105. *The Staff.*

Economic problems based upon the principles studied in Economics 105.

This course is required of all students in the College of Business Administration and A.B. majors in Economics.

These two courses (105 and 106) are prerequisite to all advanced courses in economics and business administration, except by special permission of the instructor.

133. ECONOMIC DEVELOPMENT OF THE UNITED STATES. *Mr. Smith and the Staff.*

American economic development from the colonial period to the present; economic factors involved in industrial growth and the resulting economic problems.

312. ELEMENTARY ECONOMIC STATISTICS. *The Staff.*

Introduction to the presentation and analysis of quantitative economic data; statistical sources; table reading; chart making; introduction to index numbers and time series analysis.

326. MONEY AND BANKING. *The Staff.*

Money in the economic organization; monetary theory; methods of stabilizing the price level; theories of bank deposits; discount policy and the interest rate of central banks; regulation of credit.

330. BUSINESS FINANCE. Prerequisite: Business Administration 111. *The Staff.*

Financial promotion and organization of the business firm; problems of financial administration; failures; financial rehabilitation.

334. PERSONAL FINANCE. *The Staff.*

Principles and practices involved in buying on credit; borrowing money, saving money, buying securities, insurance, annuities, real estate; problems of taxation and wills.

358. (GEOGRAPHY) ECONOMIC GEOGRAPHY. Prerequisite: Geography 101 or Geology 125 or Economics 105. *Mr. Northam and Mr. Prunty.*

Distribution and reasons for economic occurrence of agricultural, forest, and mineral raw materials; production and transportation systems and occupancy patterns related thereto; selected theories in spatial and area development of resources; resource potentials for the future in light of expanding populations.

360. PRINCIPLES OF MARKETING. *The Staff.*

Principles and methods involved in the movement of goods and services from producers to consumers.

380. (SOCIOLOGY) INDUSTRIAL SOCIOLOGY. Prerequisite: Economics 105 or Sociology 105. *Mr. Bowers* and *Mr. Payne*.

Human relations in the industrial setting; the relationship of growing, operating, or declining industrialization to the community and the larger society.

386. LABOR ECONOMICS. *The Staff*.

Survey of labor organizations, wages, hours, unemployment, labor legislation, and current developments in labor.

400. (ANTHROPOLOGY) EARLY ECONOMIC SYSTEMS. Prerequisites: Anthropology 102 and Economics 105. *Mr. Kelly*.

Economic life of primitive peoples; concepts and principles of classical economics, developed in Western civilization, are studied in the light of practices and thought among primitive groups in Asia, Africa, and the South Pacific.

406. ADVANCED ECONOMIC THEORY. *Mr. Beadles*.

Application of theoretical tools to value, distribution, money, business fluctuations, and the relationships between government and business.

409. (SOCIOLOGY) SOCIAL CHANGE. Prerequisite: Economics 105 or Sociology 105. *Mr. Bowers*.

Nature and theories of social change; causes and types of social change; cultural lag theory; social effects of inventions; adjustments of contemporary social institutions to technological change; impact of future technology on society.

421. PUNCHED-CARD STATISTICS. Prerequisites: Business Administration 315 and an introductory course in statistics. *The Staff*.

Use of punched-card machines in the treatment of numerical data; preparation of statistical surveys in a form suitable for machine use in the processing of the data; use of tables in the form of pre-punched cards.

430. CORPORATE FINANCIAL POLICY. Prerequisite: Economics 330. *Mr. Dince*.

Analysis of financial problems and policies of corporations.

431. INVESTMENTS. Prerequisite: Economics 330. *Mr. Dince*.

Elements of an "ideal" investment; examination and testing of specific investment securities.

432. FUNDAMENTALS OF INVESTMENT BANKING. Prerequisite: Economics 330. *Mr. Dince*.

Economics of investment banking; study of the economic and financial factors for appraising securities.

433. (SOCIOLOGY) POPULATION THEORY AND PROBLEMS. Prerequisite: Economics 105 or Sociology 105. *Mr. Belcher*.

Theory and dynamics of population growth; population pressure; migration; composition; differential fertility; theories of the quality and optimum population; economic and social aspects of our population.

434. (POLITICAL SCIENCE) PUBLIC FINANCE. *Mr. Tate*.

A general consideration of American public expenditures, revenues, and fiscal administration.

435. (POLITICAL SCIENCE) STATE AND LOCAL PUBLIC FINANCE. Prerequisite: Economics 434. *The Staff*.

Revenues, expenditures, and fiscal administration of Georgia and its political subdivisions; fiscal comparisons of Georgia with other states; and an analysis of inter-governmental tax relationships.

436. BUSINESS CYCLES. Prerequisite: Economics 312. *Mr. Green*.

Economic and social significance of business fluctuations; causes; methods and theories of forecasting; measures for controlling cycles.

437. COMPARATIVE ECONOMIC SYSTEMS. *Mr. Wood*.

Analysis and appraisal of the theories underlying economic systems; proposed and existing schemes with respect to the maintenance of full employment, distribution of income, and encouragement of progress.

441. (POLITICAL SCIENCE) PRINCIPLES OF PUBLIC ADMINISTRATION. *Mr. Hughes*.

General principles and problems of administrative organization, relationships and controls in the United States; personnel, financial, administrative law; the growth and significance of administrative legislation and adjudication; influence of political and social beliefs, legislatures and pressure groups.

442. (POLITICAL SCIENCE) PUBLIC PERSONNEL ADMINISTRATION. *Mr. Hughes*.

Procedures, policies, and problems of governmental personnel administration: field trips and field studies of governmental agencies give the student firsthand knowledge of governmental personnel administration.

443. (POLITICAL SCIENCE) PUBLIC FINANCIAL ADMINISTRATION. *Mr. Hughes.*

Activities involved in the collection, custody, and expenditure of public revenue; the assessment and collection of taxes; public borrowing and debt administration; preparation and enactment of the budget; financial accountability and the audit.

444. (POLITICAL SCIENCE) GOVERNMENT AND BUSINESS. *Mr. Smith.*

Economic aspects of business regulation by the government; regulatory developments and methods in the United States; loans and subsidies; fact-finding agencies; government-owned corporations.

450. MONETARY POLICY. Prerequisite: Economics 326. *Mr. Waller.*

Advanced treatment of problems introduced in Economics 326.

455. CONTEMPORARY ECONOMIC PROBLEMS. *Mr. Wood.*

Application of economic theory to certain problems of contemporary economic life, such as monopoly, business cycles, tariffs, inflationary influences, industrial conflict, etc.

465. MARKETING RESEARCH AND ANALYSIS. Prerequisite: Economics 360. *Mr. Troelston.*

Scientific method in the construction of several marketing research studies; the solution of specific distribution problems; qualitative market analyses; market trends; data collection, tabulation, and interpretation.

466. ECONOMICS OF CONSUMPTION. *Mr. Troelston.*

Economics of the consumer market; the process of consumption; position and responsibilities of the consumer; desirable controls of consumption.

475. ECONOMICS OF TRANSPORTATION. *Mr. Smith.*

Study of the economic principles of transportation with special emphasis on the history and regulation of railroads.

Majors in Aeronautical Administration will be required to complete additional assignments in air transportation.

480. INTERNATIONAL TRADE AND FINANCE. *Mr. Dince.*

Economic importance and problems of international trade; exchange rates and monetary standards; tariffs and other trade barriers; debts; the position of international trade in the post-war world.

487. THE COMMODITY EXCHANGE. Prerequisite: Economics 360. *Mr. Troelston.*

Development of the exchange; organization and general operation; commodities commonly traded; hedging; values; governmental regulations and controls.

488. THE SECURITIES MARKET. *Mr. Davids.*

Organization and functions of the New York Stock Exchange; types of transactions; types of traders; brokerage houses; speculation; relation of business cycles to stock prices; forecasting.

489. THE LABOR MOVEMENT. Prerequisite: Economics 386. *Mr. Segrest.*

Historical background of modern industrial relations; economic, social, and political forces contributing to the current problems in labor economics.

490. LABOR LEGISLATION. Prerequisite: Economics 386. *Mr. Beadles.*

State and federal legislation in the field of industrial relations.

491. COLLECTIVE BARGAINING. Prerequisite: Economics 386. *Mr. Wood.*

Historical and legal framework of the bargaining process; structure of collective bargaining, including bargaining unit, participants, negotiation; basic issues and major problems; economic implications of collective bargaining.

492. (POLITICAL SCIENCE) AMERICAN ADMINISTRATIVE LAW. *Mr. Saye.*

Legal principles and practical doctrines involved in work of administrative tribunals (the Interstate Commerce Commission, Federal Trade Commission, etc.) vested with quasi-legislative or quasi-judicial powers, or both.

494. EUROPEAN ECONOMIC HISTORY. *The Staff.*

Development of the economic aspects of civilization in medieval and modern times; evolution of economic institutions; historical background of present economic problems.

533. CREDITS AND COLLECTIONS. Prerequisite: Economics 330. *Mr. Wright.*

An analysis of the principles underlying the extension of credit to finance the transfer of goods and services.

577. PUBLIC UTILITIES. *Mr. Smith.*

Development, characteristics, rights and duties of public utilities; problem of regulation and rates; service; securities; holding companies in the electric utilities; activities of the Federal government in the power field.

585. PERSONNEL ADMINISTRATION. Prerequisites: Psychology 101 and Economics 386. *Mr. Green and Mr. Tate.*

Principles and practices in the field of the administration of human relations in industry; scientific techniques and devices in the development of a well-rounded personnel program.

591. APPLIED ECONOMIC STATISTICS. Prerequisite: Economics 312 or Mathematics 356. *Mr. Spencer.*

Various statistical methods and techniques applied to economic fields such as marketing, advertising, labor management, production, banking, investments.

GRADUATE COURSES

(Students interested in graduate work in the College of Business Administration should write to the Graduate School, University of Georgia, for a complete list of graduate offerings. The courses listed below are available for graduate students only. Courses numbered in the 400 and 500 series are offered jointly to graduate and undergraduate students).

BUSINESS ADMINISTRATION 775. MANAGEMENT OF BUSINESS RESEARCH PROGRAMS. *Mr. Keeling.*

Organization and financial management of business research programs as enterprises; by size, by function, and by relative position in the field.

BUSINESS ADMINISTRATION 790. PROBLEMS IN REAL ESTATE. *Mr. Beaton.*

A critical consideration of currently important topics in the field of real estate; assigned research projects.

BUSINESS ADMINISTRATION 854. ACCOUNTING THEORY. *Mr. Heckman.*

History and development of accounting theory with special emphasis on the new principles being advocated at the present time; the influence of legislation on accounting theory.

ECONOMICS 760. SEMINAR IN MARKETING AND SALES ADMINISTRATION. *Mr. Troelston.*

Sales and marketing problems with emphasis upon current developments in wholesale and retail agencies. Permission of the instructor required.

ECONOMICS 792. APPLIED BUSINESS RESEARCH. *Mr. Keeling.*

Applications of business research results in the determination of policy and in the planning of operation of business enterprises.

ECONOMICS 807. THE HISTORY OF ECONOMIC THOUGHT. *Mr. Smith.*

The evolution of the important principles of economics with emphasis on the history of the theories of value and distribution. Permission of the instructor required.

ECONOMICS 844. SEMINAR IN GOVERNMENT AND BUSINESS. *Mr. Smith.*

Current issues in the field of governments' relation to business with particular emphasis on problems associated with monopoly and competition.

ECONOMICS 850. RESEARCH IN MONEY AND BANKING. *Mr. Davids.*

Individual research in money and banking. Permission of the instructor required.

ECONOMICS 886. PROBLEMS IN INDUSTRIAL RELATIONS. *Mr. Segrest.*

Current problems in industrial relations with particular emphasis on the current status of unionism in the United States in terms of the effects of union organization, policies, and methods upon employer-employee relations.

ECONOMICS 890. INDEX NUMBERS. *Mr. Spencer.*

Index number construction and interpretation; a survey of the most important index numbers currently used in economic statistics.

ECONOMICS 891. RESEARCH IN APPLIED ECONOMIC STATISTICS. *Mr. Spencer.*

Individual research in the application of statistical methods to economic problems. Permission of the instructor required.

ECONOMICS 892. TIME SERIES ANALYSIS. *Mr. Spencer.*

Statistical times series analysis and its application to economic analysis.

ECONOMICS 893. ECONOMICS SEMINAR. *The Staff.*

A research problem in the field of major concentration under personal supervision of the major professor. Permission of the instructor required.

ECONOMICS 894. ECONOMICS SEMINAR. *The Staff.*

A continuation of Economics 893.

THE HENRY W. GRADY SCHOOL OF JOURNALISM

JOHN ELDRIDGE DREWRY, A.B., B.J., A.M., *Dean*

GENERAL INFORMATION

Journalism, in terms of career opportunities and as taught in the Grady School, is a broad, challenging, remunerative, personally satisfying, and socially useful field.

There was a time when to many persons the word *journalism* meant only newspaper work, perhaps reporting. Important as is the newspaper, and essential to the welfare of a democracy as is accurate and truthful reporting, journalism embraces today a great deal more than the daily and weekly press.

Journalism, in the broad sense, includes metropolitan dailies, small town dailies and weeklies, press associations and syndicates, radio and television, employee publications and trade journals, general magazines, various aspects of book publishing, advertising and public relations, much of the production and promotion work in motion pictures and the theatre, and editorial, instructional, and research work for schools, colleges, and various social agencies—the entire communications field.

Many executives and leaders in various walks of private and public life have had newspaper and other journalistic experience and have testified to the general educational value of such work. Journalism, just as the law, is both a profession within itself and an excellent preparation for dealing with the multifarious problems of life.

Just as the term *journalism* once was interpreted to mean only the newspaper, so the expression *education in journalism* has been thought by some to be merely vocational preparation for newspaper work. Actually, the curriculum leading to the degree of Bachelor of Arts in Journalism is not narrowly vocational or technical, but is designed to combine the essential elements of a liberal education and of professional training, both of which are useful and desirable in journalistic work. It is a four-way program which includes: (1) basic liberal arts courses; (2) communications history, ethics, and techniques; (3) the sequence related to the phase of communications which the student hopes to enter—news-editorial, radio-tv, advertising-public relations, etc.; and (4) a supplementary major in those subjects which will be most useful in terms of the major sequence—history, political science, economics, for example, for news-editorial; speech, drama, and music for radio-tv; applied psychology, business administration, and art for advertising-public relations.

A student who wishes to be prepared to teach and to supervise school publications and public relations may take the required courses in education as a part of the A.B. in Journalism degree. In the same way, a student may combine journalism with art, drama, economics, English, government, history, home economics, music, or other related subjects in which he or she is interested.

In terms of total hours required for the A.B. in Journalism degree, the

division is approximately three-fourths general and one-fourth technical courses.

A candidate for the A.B. in Journalism degree has a choice among six sequences: *News-Editorial*, *Radio-Television-Journalism*, *Advertising-Public Relations-Business*, *Journalistic-Literary Appreciation*, *Journalistic-Secretarial*, and *Home Economics-Journalism*. A student ordinarily does not make a selection among the sequences until the beginning of his junior year, or after he has had orientation courses and counseling in the various phases of journalism.

JOURNALISM HAS MULTIPLE APPEALS

In addition to those planning careers in some phase of journalism, courses in the School of Journalism are chosen by several other groups, such as the following:

(1) Pre-Divinity Students. Because of the value of a knowledge of the communications field in their later religious duties, an increasing number of young men and women are taking journalism as pre-Divinity School preparation. In this way, they get not only a liberal arts background, but also the techniques and skills of journalism which are useful to the religious worker.

(2) Those who are interested in writing and who see in journalism courses an opportunity to develop ability in observation, clear thinking, accuracy, and effective expression.

(3) Those who recognize the cultural benefits of certain courses, such as the history of journalism, contemporary American magazines, and literary criticism. These students feel that work in journalism, including the reporting of lectures and addresses, interviewing visiting celebrities, and doing the research necessary to the writing of special articles or editorials, vitalizes and increases the appeal of their other liberal arts subjects.

(4) Those students who are interested in journalism as a social science. These young people, realizing that the press and radio-tv, along with the schools and churches, are a great social agency which reflects and in a measure directs civilization's evolving processes, choose certain courses in the School of Journalism just as they would choose those in sociology or government.

(5) Those students who see the practical usefulness of a knowledge of journalism in their after-college days. All the students in the School of Forestry, for example, are required to have one course in journalism and one in public speaking on the theory that after their graduation both subjects will be useful to them. In the same way, home economics, business administration, pharmacy, and pre-law students often elect courses in journalism.

(6) Those who appreciate the fact that the consumers of journalism will always far outnumber the producers and that a liberal education should include an understanding of newspapers, magazines, radio-tv, and contemporary books, which will constitute an important part of their continuing education in after-college days.

The relationship of a free press to the democratic form of government, and the increasing references to this subject in political discussions here and abroad, make a knowledge of journalism a necessary part of a liberal education.

PRACTICAL WORK

Journalism instruction includes not only textbook study, lectures, recitations, and analytical assignments, but practice under careful supervision. An effort is made to anticipate in the School of Journalism the conditions which will confront the journalism graduate. In the reporting classes, for example, students cover standard sources of news, both in the city and on the campus, gathering and writing their copy with a view to publication either in the campus newspaper or in the Athens daily newspaper, which cooperates with the School by publishing meritorious student work. Theoretical instruction in broadcasting, editing, headline writing, and make-up is supplemented with laboratory practice. Many of the students make their first contacts with newspapers and magazines by submitting and having accepted feature articles written in connection with their work in the course devoted to that subject. Field trips, publication of special editions, and work as correspondents for metropolitan newspapers and press associations are all a part of the practical training. Several students work for the local newspaper and radio-tv stations.

INTERNSHIP AND "CO-OP" STUDY

Back in 1931, the Grady School pioneered with internships in journalism, an adaptation of a long-established medical practice. Under this arrangement, the better students are placed with newspapers, radio-television stations, advertising departments, and other phases of journalism for a quarter of practical experience, over and above that which is part of their resident journalism classes. These internships are usually arranged for the vacation period between the junior and senior years, but may be scheduled for other quarters. The "co-op" plan of study is also open to journalism students. This is an arrangement whereby two students alternate, quarter by quarter, university study and employment in the field. Arrangements for internship and "co-op" study are made through the office of the Dean of the School of Journalism.

BUILDING AND EQUIPMENT

The School of Journalism is housed in the Commerce-Journalism Building which was completed in the spring of 1928 and to which a large addition was made in 1947-48. In addition to ample classroom space, there are radio-tv studios, a record and seminar room, an editorial laboratory equipped with typewriters, press association wire service, and a copy desk; a large reading room with many newspapers and periodicals; a dark room for the photography course; and a large auditorium for special lectures, institutes, and conferences.

The printing division of the University is a department of the School of Journalism, and serves as the typography laboratory of the School. The purpose of the laboratory work is not to teach printing but to familiarize students with the principles of typography involved in editing copy, writing headlines, preparing advertising layouts, and in making up newspapers and magazines.

EMPLOYMENT OF GRADUATES

Graduates of the School of Journalism are filling excellent positions with newspapers, press associations, advertising agencies and departments, book

and magazine publishers, schools and colleges, radio and television stations, and specialized publications in all parts of the country. Although the School of Journalism does not guarantee to secure positions for its graduates, members of the faculty gladly assist those whose records in the classroom and extra-curricula activities recommend them for employment. A recent study showed that a high percentage of the School of Journalism graduates is profitably employed in various phases of journalism. Some of these Grady alumni hold very important positions and have made national reputations for themselves and their alma mater.

GEORGIA PRESS INSTITUTE

Sponsored jointly by the Georgia Press Association and the School of Journalism, the Georgia Press Institute is designed to assemble annually newspaper men and women, teachers of journalism and their students, and public men for round table conferences, lectures, and addresses on subjects of contemporary journalistic interest. Many prominent persons have been brought to Athens on these occasions. The Press Institute is in its 33rd year.

GEORGIA RADIO AND TELEVISION INSTITUTE

Sponsored jointly by the Georgia Association of Broadcasters and the Henry W. Grady School of Journalism, the Georgia Radio and Television Institute is patterned after the Press Institute, and assembles broadcasters and students to hear addresses by leading persons in the industry and to discuss, at round table sessions, various contemporary broadcasting-televasting problems. The 1961 Radio and Television Institute was the 16th annual session.

SOUTHERN INDUSTRIAL EDITORS' INSTITUTE

Sponsored jointly by the Southern Industrial Editors' Association and the Henry W. Grady School of Journalism, the 14th annual session of the Industrial Editors' Institute was held during the fall of 1960. Patterned after the Press Institute and the Radio and Television Institute, the emphasis was on employee publications, trade journals, public relations, and specialized magazines. Outstanding authorities in these fields were the principal speakers.

GEORGIA SCHOLASTIC PRESS ASSOCIATION

Sponsored by the School of Journalism and the University chapter of Sigma Delta Chi, the annual convention of the Georgia Scholastic Press Association is held in Athens during the early part of May. The program of this convention is designed to be helpful to the high school journalists of the state, and includes addresses, lectures, and round table discussions of various phases of school publication work. The association was organized June 14, 1928 at the University with a three-fold objective: (1) to stimulate interest in high school writing courses; (2) to raise the standards of high school journalism; and (3) to bring about a closer association between the Henry W. Grady School of Journalism and the high school students in Georgia interested in journalism. Through the Association, scholarships, prizes, and certificates of distinction are awarded to meritorious high school newspapers and staff members by the School of Journalism.

GEORGIA COLLEGIATE PRESS ASSOCIATION

Also organized (May 5, 1933) by the School of Journalism and the University chapter of Sigma Delta Chi is the Georgia Collegiate Press Association, which has the following objectives: (1) to provide a closer association among the college journalists of Georgia; (2) to provide a means of recognizing meritorious journalistic efforts through the annual award of suitable distinctions; (3) to raise the standards of the college press of Georgia; and (4) to foster among college journalists of Georgia an interest in journalism not only as a profession but as an important social science. Meetings of this association similar to those of the Georgia Scholastic Press Association are held regularly.

EDUCATION-INDUSTRY CONFERENCES ON ADVERTISING AND PUBLIC RELATIONS

Co-sponsored by the National Association of Manufacturers and the Grady School are the Education-Industry Conference on Advertising and the Education-Industry Conference on Public Relations, both of which are currently in their seventh year and both of which bring outstanding persons to the campus for addresses and panel discussions.

THE PEABODY RADIO AND TELEVISION AWARDS

The George Foster Peabody Radio and Television Awards provide annual recognition of programs, stations, networks, and individuals. They recognize the most disinterested and meritorious public service rendered each year by the broadcasting and telecasting industry, and perpetuate the memory of George Foster Peabody, benefactor and life trustee of The University of Georgia.

These awards were established in May, 1940, by the Board of Regents of the University System of Georgia. Nationally prominent Americans constitute the personnel of the Advisory Board which, through the School of Journalism, administers these Awards. They are:

Bennett Cerf, President, Random House, Inc., New York City, Chairman.

Mrs. Elizabeth Ames, Executive Director, "Yaddo," Saratoga Springs, New York.

John Benson, formerly President, American Association of Advertising Agencies, New York City.

John Crosby, Radio-TV Columnist, *New York Herald Tribune*.

Earl J. Glade, Broadcaster and formerly Mayor, Salt Lake City, Utah—President, Advertising Federation of the West.

Philip Hamburger, Special Writer, *The New Yorker*.

Edgar Kobak, Communications and Business Consultant, New York City.

Mrs. Dorothy Lewis, formerly Coordinator, U. S. Station Relations, United Nations, New York City—President, International Association of Radio Women.

Ralph McGill, Publisher, *Atlanta Constitution*.

Mrs. Harold V. Milligan, New York City. (Representing Listening Posts.)

Terrence O'Flaherty, Radio-Television Editor, *San Francisco* (Calif.) *Chronicle*.

Paul Porter, Radio-TV attorney, formerly Chairman, Federal Communications Commission, Washington, D. C.

I. Keith Taylor, Director of Radio-TV Education, Ohio State University, Columbus, Ohio.

Miss Harriet Van Horne, Radio-TV Editor, *New York World Telegram and Sun*.

Edward Weeks, Editor, *Atlantic Monthly*, Boston.

Larry Wolters, TV Editor, *Chicago Tribune*.

Ex-Officio

The Chancellor, University System of Georgia.

The Dean, Henry W. Grady School of Journalism, University of Georgia.

SIGMA DELTA CHI

The University of Georgia is one of the few Southern institutions having a chapter of Sigma Delta Chi, national professional journalistic fraternity. The Georgia chapter was installed in 1928. Its membership is restricted to those male students with good scholastic standing whose professional journalistic work is of meritorious character. Sigma Delta Chi sponsors extra-curricular journalistic activities of various kinds, and aims to promote higher journalistic ideals in the School and in the state. The Sigma Delta Chi Scholarship Award is presented to those in the upper ten per cent of the graduating class. The University chapter sponsored the organization of the Atlanta professional chapter of Sigma Delta Chi.

THETA SIGMA PHI

Composed of a selected group of advanced women students, Theta Sigma Phi is a national society designed to advance the interests of women journalists. Membership is restricted in a manner similar to that of Sigma Delta Chi. The local chapter has its own extra-curricular journalistic activities, but cooperates with Sigma Delta Chi in joint undertakings.

DI GAMMA KAPPA

Di Gamma Kappa is a national professional radio-tv fraternity. Organized at the University of Georgia in 1939, it sponsors various extra-curricular activities for students interested in broadcasting, and cooperates with the School of Journalism in the conduct of the Georgia Radio and Television Institute and similar special occasions.

KAPPA TAU ALPHA

Kappa Tau Alpha recognizes and encourages high scholarship among students in journalism. Membership is restricted to the upper ten per cent of the graduating seniors. The University of Georgia chapter was the seventh to be established in the nation.

ALPHA DELTA SIGMA

A chapter of this national professional advertising fraternity, named in honor of Samuel C. Dobbs, was installed in the Grady School April 24, 1954. Membership is open to advertising majors with superior records.

GAMMA ALPHA CHI

This is a professional organization for women students who are especially interested in advertising and related fields.

SCHOLASTIC FRATERNITIES AND CLUBS

Students in the School of Journalism are eligible for election to Phi Beta Kappa and Phi Kappa Phi, honorary scholastic fraternities. Membership is awarded to a limited group of seniors, the selection being made on the basis of character and high scholarship. In addition to the scholastic, professional, and social fraternities at the University, there are other honorary clubs and organizations, membership in which is open to journalism students.

STUDENT PUBLICATIONS

The University has a weekly newspaper, *The Red and Black*, the editorial staff of which is composed largely of students in the School of Journalism. The campus annual, *The Pandora*, and other publications also have journalism students on their staffs.

REQUIREMENTS FOR THE DEGREE OF
BACHELOR OF ARTS IN JOURNALISM

Non-journalism courses required in all sequences (core curriculum):

	Hours
English 101-102.....	10
Physical Science (two courses to be selected from Astronomy, Chemistry, Earth Science, Geology, Mathematics, Physical Science Survey, and Physics).....	10
Biological Sciences (two courses to be selected from Bacteriology, Botany, Biology, Human Biology Survey, Laboratory Psychology, and Zoology).....	10
Foreign Language.....	10 or 15

Students who offer for entrance two or more units of a foreign language (Greek, Latin, French, German, Spanish, Italian, or Portuguese) are required to take at least two courses in college in foreign language. Students who choose to continue in college the language they offered for entrance are required to take courses in 103 and 104. Those students who enter without any foreign language credits may absolve the language requirements by taking either two courses in each of two languages or three courses in one language.

Social Science (Economics 105 or 106, Geography 101, Philosophy 104, Social Science 104, or Sociology 105).....	5
English 121-122.....	10
History 111-112 or 351-352.....	10

Examinations on the history of the United States and Georgia are required of all persons receiving a degree from the University unless exempted by credit in courses dealing with this history. Courses approved for this purpose are History 100 and 351-352.

Political Science 101	5
Psychology 101.....	5
Physical Education 1-2 and Military Science 1-2 or Air Science 5-6 (for men) or Physical Education 1-2 (for women).....	10-12
Total	85-87 or 90-92

Those students who cannot operate a typewriter are advised to take Business Administration 7, 303 and/or 304 during the fall and winter quarters of their freshman year.

A student will not be permitted to register for senior division courses until he has passed the non-journalism courses in the foregoing core curriculum.

Journalism courses required in all sequences (core curriculum). Those marked with an asterisk are non-technical or vocational, and are to be regarded as a part of the liberal arts content of the degree requirements.

Journalism 101 or 350 (Introduction).....	5
*Journalism 120 or 420 (Principles, Ethics, and Literature).....	5
*Journalism 130 or 430 (History).....	5
*Journalism 140 or 440 (Public Opinion).....	5
Journalism 454 (Law)	5
*Journalism 456 (Magazines).....	5
Journalism 557 (Advertising).....	5
Journalism 580 (Radio-Television).....	5
	40

NEWS-EDITORIAL SEQUENCE

In addition to the core curriculum, a minimum of 25 hours from the following courses in journalism, including those marked with the asterisk ():*

*Journalism 100, 200, or 300 (Production).....	1
*Journalism 351 (Editing)	3
*Journalism 352 (Typography and Make-up).....	3
*Journalism 360 (Advanced Reporting).....	5
Journalism 377 (Photography)	3
Journalism 553 (Editorials)	3
Journalism 558 (Article Writing).....	3
Journalism 559 (Book Reviewing).....	3
Journalism 564 (Newspaper Management).....	3
Journalism 565 (Broadcasting Management).....	3
Journalism 567 (Contemporary Newspapers).....	3
Journalism 577 (Public Relations).....	5
Journalism 581 (Radio-TV News).....	5
Journalism 590 (Specialized Periodicals).....	5

Supplementary Major of at least 25 hours from such social sciences as history, political science, sociology, and psychology. Electives to complete a total of 195-197 hours.

RADIO-TELEVISION-JOURNALISM SEQUENCE

In addition to the core curriculum, a minimum of 25 hours from the following, including those marked with the asterisk ():*

*Journalism 100, 200, or 300 (Production).....	1
Journalism 351 (Editing)	3
Journalism 386 (Oral Interpretation of Prose and Poetry).....	5
Journalism 387 (Oral Interpretation of Dramatic Literature)...	5
Journalism 544, 545, 546 (5 hours each) (Radio-TV Acting, Directing, and Production).....	15
*Journalism 565 (Broadcasting Management).....	3
*Journalism 581 (Radio-TV News)	5
*Journalism 582 (Radio-TV Programming).....	5
*Journalism 583 a-b-c (2 hours each) (Radio-TV Workshop).....	6
Journalism 584 (Radio-TV Advertising)	5
Journalism 585 (Television)	5

Supplementary major of at least 25 hours from drama, music, and speech, or other related subjects. Electives to complete a total of 195-197 hours.

ADVERTISING-PUBLIC RELATIONS-BUSINESS SEQUENCE

In addition to the core curriculum, a minimum of 25 hours from the following courses in journalism, including those marked with the asterisk ():*

*Journalism 100, 200, or 300 (Production).....	1
*Journalism 208 (Advertising Art).....	5
*Journalism 351 (Editing)	3
Journalism 352 (Typography and Make-up).....	3
Journalism 377 (Photojournalism)	3
Journalism 564 (Newspaper Management)	3
Journalism 565 (Broadcasting Management).....	3
Journalism 574 (Advertising Campaigns).....	5
*Journalism 575 (Advertising Copy).....	5
Journalism 576 (Advertising Media).....	5
Journalism 577 (Public Relations).....	5
Journalism 578 (Retail Advertising).....	5
Journalism 579 (Newspaper Advertising).....	5
Journalism 584 (Radio-TV Advertising).....	5
Journalism 590 (Specialized Periodicals).....	5

Supplementary Major of at least 25 hours from economics, business administration, and psychology. (Economics 105, Business Administration 562, 563, 564, and Psychology 371, 373, especially recommended.) Electives to complete a total of 195-197 hours.

JOURNALISTIC-LITERARY APPRECIATION SEQUENCE

In addition to the core curriculum, a minimum of 25 hours from the following courses in journalism, including those marked with the asterisk ():*

Journalism 100, 200, or 300 (Production).....	1
*Journalism 351 (Editing)	3
*Journalism 360 (Advanced Reporting).....	5
Journalism 362 (Fiction Writing).....	3
Journalism 363 (Advanced Fiction and Article Writing).....	3
Journalism 377 (Photojournalism)	3

Journalism 553 (Editorials)	3
*Journalism 558 (Feature Writing).....	3
*Journalism 559 (Book Reviewing).....	3
Journalism 577 (Public Relations).....	5
Journalism 590 (Specialized Periodicals).....	5

Supplementary Major of at least 25 hours from the humanities, fine arts, social sciences. (American and English literature courses especially recommended.) Electives to complete a total of 195-197 hours.

JOURNALISTIC-SECRETARIAL SEQUENCE

In addition to the core curriculum, a minimum of 25 hours from the following courses in journalism, including those marked with the asterisk ():*

*Journalism 100, 200, or 300 (Production).....	1
*Journalism 351 (Editing)	3
*Journalism 352 (Typography and Make-up).....	3
Journalism 377 (Photojournalism)	3
Journalism 553 (Editorials)	3
Journalism 358 (Article Writing).....	3
Journalism 559 (Book Reviewing)	3
Journalism 567 (Contemporary Newspapers).....	3
*Journalism 577 (Public Relations).....	5
Journalism 590 (Specialized Periodicals).....	5

Supplementary Major of at least 25 hours, including Business Administration 108, 110 or 370, 300 a-b-c, 310, and necessary courses in typing. Electives to complete a total of 195-197 hours.

HOME ECONOMICS-JOURNALISM SEQUENCE

Non-journalism courses required in all sequences

(core curriculum)	85-87 or 90-92
Journalism courses required in all sequences (core curriculum), except Journalism 100, plus Journalism 208, 351, and 558 51	
Home Economics 115 (Meal Planning and Serving).....	5
Home Economics 120 (Clothes Construction).....	5
Home Economics 325 (How to Dress).....	5
Home Economics 293 (Family Relationships).....	5
Home Economics 343 (Care of the House).....	5
Home Economics 370 (Family Food Buying).....	3
Home Economics 390 (Family Fundamentals).....	3
Electives, chosen with approval of Dean of School of	
Journalism, to complete a total of.....	195

A minimum grade of C is required in all major subjects. All supplementary major subjects and electives shall be chosen with the approval of the Dean of the School of Journalism and are determined by the sequence in which the student is especially interested.

FIVE-YEAR SEQUENCE

A student who has received the A.B. degree from a college belonging to a standard regional association may satisfy the requirements for the A.B. in Journalism degree with a minimum of 45 hours in Journalism, selected with the approval of the Dean of School of Journalism. Such a student must be in residence at the University three quarters.

COMBINATION GRADUATE COURSE IN JOURNALISM AND BUSINESS ADMINISTRATION

The degree of Master of Business Administration may be taken as a combination curriculum of the School of Journalism and the College of Business Administration, leading to the degree of A.B. in Journalism in four years and the M.B.A. after an additional four quarters of study. This program is designed to aid those anticipating interpretative writing in economics and related fields, and also those who plan to work in the business phases of journalism.

Students who contemplate pursuing this combination should register for the Advertising-Public Relations-Business Sequence, A.B. in Journalism degree. The supplementary major plus electives (totaling 40 hours) should be selected from offerings of the College of Business Administration, including Economics 105 (Principles of Economics), Business 110 (Accounting), and the Business Administration core curriculum with the exception of Business Administration 370.

As a graduate of the School of Journalism with the foregoing undergraduate courses, the student may complete the requirements for the M.B.A. degree in four quarters. At least 40 of the 60 hours required for this degree must be taken from offerings of the College of Business Administration. The remaining 20 hours may be taken as a minor in the School of Journalism.

COMBINATION COURSE IN JOURNALISM AND LAW

An understanding of the various phases and techniques of journalism is of much value to the lawyer. Likewise, a knowledge of the law is useful to the journalist. On this premise, a combination law and journalism curriculum has been set up, similar to that which exists in the College of Arts and Sciences and the College of Business Administration. This is a six-year program, leading to the two degrees, Bachelor of Arts in Journalism and Bachelor of Laws. Under this arrangement, the first year in the School of Law takes the place of the fourth year in the School of Journalism. The student must, however, satisfy all the specific course requirements in the School of Journalism, including the non-journalism courses in the core curriculum, the journalism courses required in all sequences, and the journalism courses in the particular sequence chosen by the student. The work in law, in this joint program, becomes the supplementary major required of all candidates for the journalism degree. Under this joint arrangement, the degree of A.B. in Journalism will be granted upon the satisfactory completion of the first year of law and a minimum of 185 quarter hours (exclusive of physical education and/or military or air science).

MASTER OF ARTS

The Master of Arts will be conferred upon the completion of a major in Journalism, a minor in the social sciences, a minor in English, and the preparation of a satisfactory thesis upon the subject assigned. Prerequisites for admission as a prospective candidate for this degree include an approved bachelor's degree from an accredited institution and the necessary undergraduate courses in Journalism.

ONE-YEAR COURSE

To serve as a refresher course for returned veterans and others who wish to spend only one year in college, the School of Journalism offers a special three-quarter program, normally consisting of 45 hours in journalism and related subjects. Only those persons with a serious and definite reason are admitted to this short program. A student who enrolls for the special, one-year program may later become a candidate for the A.B. in Journalism degree by meeting all entrance and residence requirements.

COURSES OF INSTRUCTION

(Commerce-Journalism Building, North Campus)

The University reserves the right to withdraw any course for which the registration is not sufficiently large, and to offer courses not here listed should sufficient demand arise and teaching facilities and personnel be available.

Unless otherwise indicated all courses meet five hours a week and carry five hours credit.

FRESHMAN AND SOPHOMORE COURSES

100. JOURNALISTIC PRODUCTION. 1 to 5 hours. Prerequisite: Journalism 101 or 350. *The Staff*.

Reportorial, editorial, and advertising work, with RED AND BLACK and other campus and local publications and organizations, under faculty supervision.

101. INTRODUCTION TO JOURNALISM. *Mr. Drewry and Staff*.

A survey of the communications field, including writing therefor.

120. PRINCIPLES AND ETHICS OF JOURNALISM. *Mr. Drewry*.

A study of the fundamentals of journalism, including ethics, practices, and trends.

130. HISTORY OF JOURNALISM. *Mr. Kopp*.

The development of mass media of communications and their place in society, with special reference to the U.S.A.

140. PUBLIC OPINION AND JOURNALISM. *Mr. Kopp, Mr. Moore, and Mr. McDougald*.

A study of the place of newspapers, magazines, radio, television, and other mass media in public behavior.

JUNIOR AND SENIOR COURSES

200. JOURNALISTIC PRODUCTION. 1 to 5 hours. Prerequisite: Permission of the Dean of the School of Journalism. *Staff*.

A management conference course for those holding major elected position on the RED AND BLACK.

300. JOURNALISTIC PRODUCTION (INTERNSHIP). 1 to 15 hours. Prerequisites: Basic courses in technique and permission of the Dean of the School of Journalism. *The Staff*.

A few superior students of junior or senior standing will be permitted to register for this course as a means of obtaining practical experience over and above that offered in this School. The exact amount of credit will be determined by the circumstances in each case, but the maximum credit for Journalism 100, 200, and 300 is 15 hours.

308. ADVERTISING LAYOUT. *Mr. Dodd and Art Staff*. (Also offered as Art 308.)

Fundamentals of color, design, typography, and reproduction as related to modern advertising problems. Layout of newspaper, magazine, and direct-mail advertising.

350. BASIC COMMUNICATIONS TECHNIQUES. *Mr. Drewry and Staff*.

The senior division introductory course in journalism, including news values, reporting, and writing.

351. COPY READING AND EDITING. 3 hours. Prerequisite: Journalism 101 or 350. *Mr. Hynds and Mr. McDougald.*

The basic course in editing for all types of publications, with special emphasis on newspaper and press service copy. Headline and caption writing.

352. MAKE-UP AND TYPOGRAPHY. 3 hours. Prerequisites: Journalism 101 or 350 and 351. *Mr. Hynds and Mr. Kraps.*

A continuation of Journalism 351, with special emphasis on newspaper and periodical make-up and typography. Practical work is made possible by a printing laboratory.

360. ADVANCED REPORTING AND WRITING. Prerequisites: Journalism 101 or 350. *Mr. Kopp and Mr. McDougald.*

Theory and practice in covering news of municipal, county, state, and federal organizations.

361. DRAMATIC CRITICISM. 3 hours. *Mr. Ballew and Staff.*

Theory and practice in reviewing stage productions, motion pictures, and concerts.

362. THE SHORT STORY. 3 hours. *The Staff.*

A practical writing course for students who have mastered the fundamentals of English expression and who are interested in writing fiction for contemporary magazines or other markets.

368. CONTEMPORARY JOURNALISTIC PRACTICE. *Mr. Drewry and Staff.*

A survey of news and feature work for newspapers, radio-tv, and periodicals, for specialized groups, such as students in agriculture, home economics, county agents, etc. Special attention will be given to publicity and public relations.

376. (PHYSICS) PRINCIPLES OF PHOTOGRAPHY. 3 hours. One hour of recitation and four hours of laboratory work. Prerequisite: Physical Science 101, Physics 120, or the equivalent. Supply deposit, \$10. *Mr. Dixon.*

An elementary approach to the factors involved in the choice of a camera, the exposure and development of the film, the production of contact prints, the enlargements of prints, and color photography.

377. PHOTOJOURNALISM (JOURNALISTIC PHOTOGRAPHY). 3 hours. *Mr. Abney and Mr. McDougald.*

A study of the photographic requirements of newspapers and magazines and the technique of news photography with elementary training in the use of various cameras, development, and enlarging. Selection of photographs for publication, including editing, scaling to size, the engraving processes, and caption writing.

386. RADIO-TELEVISION—ORAL INTERPRETATION OF LITERATURE. Prerequisite: Speech 108 and/or permission of instructor. (Also offered as Speech 386). *Mr. Popovich.*

A study of the techniques of literary analysis for effective oral reading of lyric and narrative literature and the development of vocal flexibility through a variety of problems in phrasing and emphasis, with special reference to radio-tv.

387. RADIO-TELEVISION—DRAMATIC INTERPRETATION. Prerequisite: Speech 108 and/or permission of instructor. (Also offered as Speech 387). *Mr. Popovich.*

A study of the theory, techniques, and principles of interpretation of drama from the points of view of the oral interpreter and actor. Development of oral skills through the study of selected plays and monologues—with special reference to radio-tv.

JUNIOR-SENIOR OR GRADUATE COURSES

420. THE LITERATURE OF JOURNALISM. *Mr. Drewry.*

Ethics, practices, and trends, with emphasis on the literature of the entire communications field.

430. HISTORY OF JOURNALISM. *Mr. Kopp.*

An advanced course in the development of mass media of communications.

440. PUBLIC OPINION AND JOURNALISM. *Mr. Kopp and Mr. Moore.*

An advanced course devoted to an examination of the influence of mass media on public opinion.

454. THE LAWS OF COMMUNICATIONS. *Mr. Kopp.*

A consideration of certain legal aspects of journalism (radio-television as well as the press), including libel, contempt of court, right of privacy, copyright, and postal laws.

456. THE MAGAZINE. *Mr. Drewry.*

This course is intended for two groups: (1) those who are interested in contemporary thought and in magazines as a phase of American literature; and (2) those who plan to contribute to magazines, and therefore would know the markets.

467. CONTEMPORARY AMERICAN NEWSPAPERS. 3 hours. *Mr. Kopp.*

A study of outstanding present-day newspapers in the United States, including a consideration of their development, noted personalities on their staffs, and their characteristics and policies.

469. GEORGIA JOURNALISM. Prerequisite: Journalism 130 or 430, Political Science 101, and History 459. *The Staff.*

A study of the place of Georgia newspapers, periodicals, editors, and contributors in American history and in American journalism.

537. PUBLIC RELATIONS (PUBLICITY). 3 hours. *Mr. Abney, Mr. Kopp, Mr. Moore, and Mr. McDougald.*

A 3-hour version of Journalism 577. See Journalism 577 for description.

544, 545, 546. RADIO-TELEVISION ACTING, DIRECTING, AND PRODUCTION. Three separate 5 hour courses. Prerequisite: Two senior division courses in Speech, Drama, or Radio-Television. (Also offered as Speech 544, 545, 546.) *Staff.*

Three advanced courses in radio-television acting and directing. Plays will be rehearsed in the Laboratory Theatre and radio-tv plays broadcast from the studios in the Commerce-Journalism Building. Elective courses open to students having the necessary prerequisites.

553. THE EDITORIAL. 3 hours. Prerequisite: Journalism 101 or 350. *Mr. Hynds and Mr. Drewry.*

A study of the technique of writing various types of editorials, with practical assignments in each type. A study of interpretation and comment. Students in this course make practical analyses of representative editorial pages.

557. ADVERTISING PRACTICE. *Mr. Drewry.*

A survey of the advertising field, including maker, seller, advertising agency, and media—newspaper, magazines, billboards, radio-tv, etc. Theory and practice in writing various types of advertisements.

558. FEATURE WRITING AND SPECIAL ARTICLES. 3 hours. *Mr. Hynds and Mr. Drewry.*

Theory and practice in writing articles of a varied character for newspapers, magazines, syndicates, trade journals, and radio-television.

559. LITERARY APPRECIATION. (Book Reviewing). 3 hours. *Mr. Hynds, Mr. Kopp and Mr. Drewry.*

A course in literary appreciation and evaluation with the emphasis on current books and the preparation of reviews for newspapers, magazines, radio-tv, and specialized publications.

563. ADVANCED FEATURE, FICTION, AND RADIO-TV WRITING. 3 hours. Prerequisite: A satisfactory grade in Journalism 362, 558, or 580. *The Staff.*

A continuation of production work begun in feature, fiction, or radio-tv writing, with emphasis on marketing, publication, or broadcasting.

564. NEWSPAPER MANAGEMENT. 3 hours. *Mr. Abney, Mr. Kopp and Mr. Moore.*

The business aspects of newspaper and periodical publication.

565. BROADCASTING MANAGEMENT. 3 hours. *Mr. McDougald.*

The business aspects of radio and television.

566. JOURNALISM IN THE SECONDARY SCHOOL. (Also offered as Education 566.) *The Staff.*

A survey of news gathering, news writing, copy reading, typography, and business management, with specific relation to the high school newspaper. Also school public relations.

574. ADVERTISING CAMPAIGNS. Prerequisites: Journalism 101 or 350 and 557 or 575. *Mr. Moore.*

Planning and preparation of copy and layout for a complete national advertising campaign, with emphasis on media and copy research.

575. ADVERTISING COPY WRITING. Prerequisite: Journalism 101 or 350. *Mr. Moore.*

Principles and practices in the preparation of copy for a variety of media. Reader surveys, copy tests, and a study of products in relationship to copy and markets are a part of this course.

576. ADVERTISING MEDIA. Prerequisites: Journalism 101 or 350 and 557 or 575. *Mr. Moore.*

A study and evaluation of the principal advertising media, including newspapers, magazines, trade publications, radio-tv, outdoor, novelty, and cinema. The work of an advertising office or agency and the selling of space or time are considered.

577. PUBLIC RELATIONS. (PUBLICITY). *Mr. Abney, Mr. Moore, and Mr. McDougald.*

A study of problems and techniques. Analyses of publicity campaigns and discussions of the ways in which various media can be utilized.

578. RETAIL ADVERTISING COPY AND SALES PROMOTION. Prerequisite: Journalism 575. *Mr. Moore.*

Analyses of overall promotion of the department store and other retailers. Preparation of copy for various types of retail advertisers and for the various media used by the retailer. Each student will write a term paper in the phase of retail advertising which particularly interests him.

579. NEWSPAPER ADVERTISING. Prerequisites: Journalism 101 or 350 and 557. *Mr. Moore.*

Basic practices, techniques, and problems of weekly, small daily, and metropolitan newspaper advertising departments. Newspaper advertising, sales promotion preparation, planning, research, and legal and ethical problems.

580. RADIO-TELEVISION IN JOURNALISM. *Mr. McDougald and Staff.*

Radio and television as phases of journalism.

581. RADIO-TELEVISION NEWS. Prerequisite: Journalism 101 or 350, or special permission. *Mr. McDougald and Staff.*

The processing of news for radio and television. Evaluation of stories, arrangements of 5 and 15 minute newscasts, news spots, and analysis of newscasts being presented over network and local stations.

582. RADIO-TELEVISION PROGRAMMING. Prerequisite: Journalism 580. *Mr. McDougald and Staff.*

A study of programming, with special emphasis on public service and the social aspects of radio and television. An examination of Peabody entries and winners.

583. Also offered as 583 a-b-c (2 hours for each part). RADIO-TELEVISION PERFORMANCE. Prerequisite: Journalism 101 and 580, 581 or 582 (one of last three). Class will be limited to ten carefully chosen students definitely interested in radio-television as a career. *Mr. McDougald and Staff.*

A laboratory course wherein the student gets actual experience, under faculty supervision, in various aspects of broadcasting and telecasting. On-the-job experience will be supplemented by seminars and regular conferences with instructors.

584. RADIO-TELEVISION ADVERTISING. Prerequisite: Journalism 101 or 350. *Mr. McDougald and Staff.*

Radio and television as advertising media. Preparation of scripts and various types of commercial programs.

585. TELEVISION. *Mr. McDougald and Staff.*

An introductory course concerned with the history, problems, and techniques of television. Theoretical instruction is supplemented by laboratory observation and work in nearby television stations.

590. EMPLOYEE PUBLICATIONS AND SPECIALIZED PERIODICALS. Prerequisites: Journalism 350, 351, 352, 456. *Mr. Moore.*

Purpose, content, appearance, editing of internal and external house publications and specialized periodicals.

GRADUATE COURSES

For all undergraduate journalism courses in the 400 and 500 series, listed in the preceding section, there are graduate courses under corresponding numbers in the 600-700 series. For example, Journalism 456, is offered on the graduate level as Journalism 656. In addition to these 600-700 series courses, the following exclusively graduate courses are offered:

807-808. ADVERTISING-PUBLIC RELATIONS. 10 hours. *Mr. Drewry.*

Special work based on Journalism 557, including public relations as well as advertising.

830. RESEARCH IN JOURNALISM. Prerequisite: 30 or more credit hours in journalism at the senior or graduate level. Open only to graduate students in journalism. *Mr. Drewry, Mr. Kopp, and Mr. Moore.*

Individual research in journalism. Permission of the instructor required.

HISTORY, NAME AND ACCREDITATION

Instruction in journalism at the University of Georgia dates back to 1915 when a School of Journalism was authorized by the Board of Trustees. In 1921 the School was named for the illustrious editor, orator, and statesman, Henry W. Grady, an alumnus of the University.

The Grady School is on the approved list of the Association for Education in Journalism and for some years has been a member of the American Association of Schools and Departments of Journalism, the national accrediting organization whose membership is limited to those schools which have met certain requirements as to curriculum, faculty, and equipment.

SPECIAL LECTURERS*

WILLIAM C. BAGGS, Editor, *Miami News*.

MARCUS BARTLETT, General Manager, WSB-TV, Atlanta.

DON A. BRENNAN, Manager, Community Relations Bureau, Curtis Publishing Company, Philadelphia.

ERLE COCKE, JR., Vice-President, Delta Air Lines, Inc., and Member, American Delegation, United Nations General Assembly.

WILLIAM H. FIELDS, Managing Editor, *Atlanta Constitution*.

HOBART T. FRANKS, Advertising Director, *Atlanta Journal and Constitution*.

NORMAN R. GLENN, Editor and Publisher, *Sponsor Magazine*, New York City.

ROY M. HALL, Assistant Commissioner for Research, U. S. Department of Health, Education and Welfare, Washington, D. C.

WILLIAM C. HALLEY, Associate Editor, *duPont Magazine*, Wilmington, Delaware.

STEWART HENSLEY, U. S. State Department Correspondent, United Press International, Washington, D. C.

ED JACKSON, Assistant Editor, *Southern Telephone News*, Atlanta.

RICHARD JOEL, National Chairman, Alpha Delta Sigma, Tallahassee, Florida.

R. STANLEY MADDOX, Regional Public Relations Manager, General Motors Corporation, Atlanta.

EARL MAZO, National Political Correspondent, *New York Herald Tribune*.

LAWRENCE W. MERAHN, Promotion Director, *New York World-Telegram and Sun*.

SIG MICKELSON, President, CBS News, New York City.

JOHN W. MILES, Advertising Manager, Rich's Inc., Atlanta.

EUGENE PATTERSON, Editor, *Atlanta Constitution*.

JOHN N. POPHAM, General Managing Editor, *Chattanooga (Tenn.) Times*.

JOHN RIGGALL, Vice-President, Citizens and Southern National Banks, Atlanta.

* This is a partial list of those heard during the 1959-60 school year. A similar group is heard each session.

CLIFFORD R. SCHAIBLE, Director of Advertising, The Mead Corporation, Dayton, Ohio.

ROBERT SHERROD, Managing Editor, *Saturday Evening Post*, Philadelphia.

SAM J. SLATE, Vice-President and General Manager, WCBS (CBS Radio), New York City.

JOHN E. SOLOMON, Publications Manager, Western Auto Supply Company, Kansas City, Missouri.

EDWARD STANLEY, Director of Public Affairs, National Broadcasting Company, Inc., New York City.

CHARLES H. TOWER, Vice-President, Television, National Association of Broadcasters, Washington, D. C.

ROBERT G. TURNER, General Advertising and Promotion Manager, *Columbus Ledger-Enquirer* Newspapers.

W. P. (Pat) WATTERS, City Editor, *Atlanta Journal*.

DR. KENNETH D. WELLS, President, Freedoms Foundation at Valley Forge, Valley Forge, Pennsylvania.

THE SCHOOL OF HOME ECONOMICS

MARY SPEIRS, A.B., M.A., Ph.D., *Dean*

GENERAL INFORMATION

HISTORY AND PURPOSE

The School of Home Economics originated as the Division of Home Economics of the State College of Agriculture in 1918 and offered the first undergraduate work open to women in the University of Georgia. The earliest curriculum marked the first opportunity for women to secure the baccalaureate degree from any state supported institution in Georgia. The School of Home Economics was established in 1933 when the Household Arts Department of the State Teachers College was merged with the Division of Home Economics of the Georgia State College of Agriculture.

The School of Home Economics takes as its major objectives the preparation of students for satisfactory and effective family life and training for professional careers. The first is achieved by means of a well-rounded program of general, scientific, and technical education, and the second through a variety of home economics curricula. Since a high percentage of all home economics graduates ultimately marry and go into homes of their own, it is important that the basic curriculum prepare them for home-making. The student who chooses to enter home economics for vocational preparation will find in this field an interesting choice of professional opportunities. Special programs are available to able students which permit concentration in both a major area of home economics and a related area of science.

Graduates of the School have filled positions as home economics teachers both in high schools and colleges, home demonstration agents, workers in community agencies, hospital dietitians, demonstrators for commercial organizations, department store buyers, personnel and public relations workers, nursery school teachers, child welfare workers, college teachers, and research workers.

The School of Home Economics also offers a wide variety of more general subject matter for both men and women from other schools in the University who are interested in home and family education as well as in certain technical phases of home economics.

FACILITIES

Erected in 1932, Dawson Hall is located on South Campus. It is within walking distance of the North Campus and the business center of the city.

Dawson Hall is a three-story structure containing modern and fully equipped teaching laboratories and classrooms for equipment, foods, nutrition, textiles, clothing, home nursing, and home furnishing, as well as research laboratories. The building also provides a student and faculty lounge and an auditorium for club groups and special programs. In close proximity to Dawson Hall are the residence halls for women, the Physical Education Building for Women, three home management houses, the nursery school, the infant center, the South Campus Library, and the cafeteria in Snelling

Hall. The college dining halls are used as laboratories for institution management courses.

The three home management houses are modern and well-equipped. They serve as teaching laboratories for home management and also for home furnishings. Each house has a resident director. Students living in small groups for a quarter's residence required of most majors have an opportunity to apply the sciences and arts of home economics to a family situation.

The School of Home Economics in cooperation with the Department of Psychology maintains a nursery school as a laboratory for courses in child development. The Department of Psychology collaborates in teaching and psychological testing and also offers consultant service to parents. The nursery school is equipped to meet the needs of pre-school children. Immediately adjacent to the nursery school is the infant center laboratory.

UNIVERSITY OF GEORGIA FAMILY COUNSELING SERVICE

STANLEY E. FOWLER AND ELIZABETH T. SHEERER, *Counselors*

The Family Development staff offers counseling services on pre-marital, family, and other personal problems. The main purpose of these services is to provide help for students, but a limited number of non-students may use this service. Those desiring services should apply directly to one of the counselors.

STUDENT ORGANIZATIONS

Home Economics students are eligible to participate in all general University activities. Special activities in the School of Home Economics are carried on by the Homecon club whose semi-monthly meetings are attended by majors in the School. The national honorary home economics sorority on the campus is Phi Upsilon Omicron, in which membership is based on scholarship, extra-curricular activities, and professional attitude. A student-faculty committee is representative of student groups within the school and serves in an advisory capacity. Students are eligible for election to Phi Kappa Phi.

SCHOLARSHIPS AND AWARDS

Certain scholarships and awards are open only to Home Economics students. For data on additional scholarships and awards, see the General Information section of this Catalogue.

THE BORDEN AWARD is made to the home economics senior who received the highest average grade of any student in the School of Home Economics during the three quarters of her junior year at the University. The award is \$300.

DEAN'S AWARDS IN HOME ECONOMICS. Two annual awards of \$100 each for excellence in the sophomore and freshman years, respectively, and superior promise in Home Economics.

THE DANFORTH FELLOWSHIP provides a month's summer program for the home economics junior who holds an outstanding record of scholarship and school leadership. Two weeks at Camp Miniwanca and two weeks in St. Louis under the supervision of the Danforth staff make up the month's program. The Danforth Fellowship for freshmen is open to the outstanding home economics freshman girl both in scholarship and activities and offers

two weeks of camp at Miniwanca during the summer between the freshman and sophomore years.

TWO KROGER SCHOLARSHIPS of \$250 each are awarded to freshman home economics students. Apply by March 1.

FOUR SEARS-ROEBUCK SCHOLARSHIPS of \$300 each are available each year to freshman home economics students. Apply by March 1.

A GEORGIA DIETETIC ASSOCIATION SCHOLARSHIP of \$150 is available to a major in dietetics or institution management to help finance the internship year after graduation.

THE JAMES COFFEE HARRIS AWARD is given annually to a Junior for proficiency in Home Economics and English. This award is a bequest of the late Agnes Ellen Harris who was Dean of Home Economics at the University of Alabama.

GRADUATE STUDY

The School of Home Economics offers graduate study in several phases of work that will lead toward the Master of Science degree or the Master of Home Economics degree. For further information on advanced study see the bulletin of the Graduate School.

DEGREE REQUIREMENTS

A total of 185 quarter hours exclusive of Physical Education is required for the Bachelor of Science in Home Economics degree. Physical Education 1 and 2 are required of all freshmen and sophomores, but may be waived for transfer students entering the junior class with full standing.

SPECIAL SCHOLARSHIP REQUIREMENTS. In addition to the general University requirements relative to scholarship, the following requirements must be met by all students in home economics:

Any student, who does not have an average weighted grade of 73 or more at the end of the quarter in which 85 academic quarter hours of work have been completed, will not be entitled to continue in attendance in the School of Home Economics except by special permission of the Dean. Such permission will be granted only in exceptional cases; required will be satisfactory achievement in basic freshman and sophomore courses.

At least an average grade of "C" must be earned in all courses taken either in home economics or in the joint major area of concentration, before credit for the course will be given for graduation.

SPECIAL EXAMINATIONS. Placement tests in several areas of home economics are available. Students may be exempted from requirements for certain courses on the basis of their performance in these tests. Students showing a deficiency in mathematics or in reading ability may be required to take certain remedial non-credit courses.

SPECIAL PROGRAMS. Men and women students may take special programs designed to provide concentration in a single major area of home economics and in a related area of natural or social science. This type of program may be taken only by a student of proven academic ability and with permission of the Dean. The curriculum will be planned to meet the needs of each student, but must include at least 80 quarter hours of general education (humanities and sciences), 40 quarter hours in courses numbered 200 or above in the major area of home economics, and 40 quarter hours in specified related areas of science. These special programs are particularly

suitable for students planning for graduate study in certain subject matter areas of home economics.

Junior and senior schedules may vary from 45 to 48 hours with approval of the major professor and Dean of the School.

FRESHMAN AND SOPHOMORE REQUIREMENTS

	Hours
Art 120	5
Art or Music elective	3-5
English 101 and 102, Composition	10
English 121 and 122, European Literature	10
Science (Select from Item 2 below)	10-15
Social Science (Select from Item 3 below)	10-15
Home Economics 101, Orientation	1
Home Economics 115, Foods	5
Home Economics 120, Clothing	5
Home Economics 175, Home Furnishings	5
Home Economics 293, Family Relations	5
Home Economics 224, Textiles	5
Home Economics 343, Household Equipment	5
Speech 108	5
Physical Education	10

JUNIOR AND SENIOR CORE REQUIREMENTS

Science (Select from Item 2 below)	5-10
Social Science	5-10
Home Economics 306 or 350, Foods.....	5
Home Economics 351 or 358, Nutrition	5
Home Economics 368 and 369, Home Management	6
Home Economics 390 or 490, Infant or Child Development	5

Note on Freshman and Sophomore requirements: Hours of science or social science vary with the major concentrations. Home Economics 224, Home Economics 343, and Home Economics 306 may be taken in either the sophomore or junior year. Home Economics and Art majors will take Art 120, 130, and 140 in sequence and will also take 10 hours of approved art electives in the sophomore year.

See major concentrations for total requirements of Junior and Senior years.

DETAIL OF TOTAL REQUIREMENTS

	Hours
1. English 101 and 102, Composition	10
English 121 and 122, European Literature	10
Speech 108	5
2. Science (minimum)	20

For all majors Chemistry 121 is required, and at least ten of the hours must be taken in one subject area: Chemistry, Physics, Mathematics, Zoology or Botany.

Specified sciences needed for the various majors are as follows:

Major in Clothing and Textiles: Chemistry 121 and 260, and Mathematics 100.

Major in Dietetics and Institution Management: Chemistry 121, 122, 260, 451; Human Biology 101; Bacteriology 350 (30 hours)

Major in Home Economics Education: Bacteriology 350; Chemistry 121 and 260; Human Biology 101.

Major in Foods: Chemistry 121, 260; Human Biology 101; Physics 120 or Chemistry 122; Bacteriology 350 (25 hours)

Major in Family Development: Chemistry 121; Human Biology 101

Major in Housing and Home Management: Physics 120; Chemistry 121, 260; Human Biology 101

Major in Nutrition: Chemistry 121, 122, 260, 451; Physics 120; Human Biology 101; Bacteriology 350 (35 hours)

3. Social Science (minimum) 20

Select courses from at least two of the following: Anthropology, Economics, Geography, History, Philosophy, Political Science, Psychology, Sociology.

Specific courses in social science needed for certain curricula should be selected as follows:

Major in Clothing and Textiles: Economics 105 and 360, Psychology 101

Major in Dietetics and Institution Management: Economics 105; Psychology 101; Sociology or additional Psychology

Major in Home Economics Education: Economics 105; Psychology 101

Major in Foods: Economics 105; Psychology 101

Major in Family Development: Psychology 101; Sociology 105.

Concentration in Family Living, total requirement 25 hours

Concentration in Child Development, total requirement 20 hours

Major in Housing and Home Management: Economics 105; Psychology 101; Sociology 105

Major in Home Economics and Art: Psychology 101

Major in Home Economics and Journalism: Economics 105; Psychology 101, 371

Major in Nutrition: Economics 105; Psychology 101

4. Fine Arts 8-10

Art 120 and one course in Music, Art, Visual Arts, or Crafts are to be chosen.

Major in Clothing and Textiles: Art 120 and two approved art courses (13-15 hours).

Major in Home Economics and Art: Art 120, 130, and 140 in sequence (15 hours).

5. Home Economics, Core Requirements.....	50-52
Course	Hours
101 Orientation	1
115 Foods	5
120 Clothing	5
175 Home Furnishings	5
224 Textiles	5
293 Family Relations	5
343 Household Equipment	5
306 or 350 Foods.....	5
351 or 358 Nutrition	5
368-9 Home Management	6
390 or 490 Infant or Child Development	5
6. Major Concentration and Free Electives	53-62
At least thirty hours should be selected to meet requirements of the major concentration.	
7. Physical Education	10
Total Requirements	
	195

MAJOR CONCENTRATION

Upon completion of freshman and sophomore requirements each student will, with approval of the Dean of the School, select a major concentration. This selection should conform to one of the plans indicated, and must include forty quarter hours in home economics courses numbered 200 or above. Minor changes in programs may be made upon recommendation of the major professor with approval of the Dean.

MAJOR IN CLOTHING AND TEXTILES

This major offers training to the future homemaker for artistic and intelligent selection of and care of clothing and household fabrics for the family. It gives preliminary training which may lead to: becoming a clothing or textile specialist, fabric or fashion coordinator, clothing or textile designing; consumer consultant, buyer; writing for trade publications; college teaching and research.

JUNIOR AND SENIOR REQUIREMENTS

	Hours
CLOTHING AND TEXTILES	33
Home Economics 223 Family Clothing	3
Home Economics 321 Advanced Clothing	5
Home Economics 360 Advanced Textiles	5
Home Economics 561 Clothing and Textiles Economics	5
Three courses selected from the following:	15
Home Economics 363 Costume Design	
Home Economics 463 Historic Costume	
Home Economics 562 Tailoring	
Home Economics 564 Design and Draping	
FAMILY DEVELOPMENT	5
Home Economics 390 or 490 Infant or Child Development.....	5

FOOD AND NUTRITION.....	10
Home Economics 306 Food	5
Home Economics 351 Nutrition	5
HOUSING AND HOME MANAGEMENT	11
Home Economics 343 Household Equipment	5
Home Economics 368-9 Home Management	6
BUSINESS ADMINISTRATION	10
Economics 360 Marketing	5
Elective	5
Arts and Sciences (See Total Requirements).....	8-10
Electives	15-17
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	94-96

Suggested Electives: Home Economics 357, 364, 475; Art 208, 220, 251, 317; Business Administration 560; Economics 465; Chemistry 122, 223; Journalism 368, 580; Physics 127; Sociology 105, 409, 427.

MAJOR IN DIETETICS AND INSTITUTION MANAGEMENT

This major meets the requirements of the American Dietetic Association and gives preliminary training for the dietitian. It prepares the student for administrative and therapeutic dietetics as well as for the teaching of dietetics and for the graduate year in hospital dietetics. Students are also prepared for lunch room, tea room, or college dining hall management if electives are selected properly.

JUNIOR AND SENIOR REQUIREMENTS

	Hours
FOOD AND NUTRITION	25
Home Economics 306 Foods	5
Home Economics 351 Nutrition	5
Home Economics 354 Quantity Cookery	5
Home Economics 452 or 353 Advanced Nutrition	5
Home Economics 453 Nutrition in Disease	5
INSTITUTION MANAGEMENT	10
Home Economics 372 Management	5
Home Economics 374 Food Purchasing	5
CLOTHING AND TEXTILES	5
Home Economics 224 Textiles	5
FAMILY DEVELOPMENT	5
Home Economics 390 or 490 Infant or Child Development	5
HOUSING AND HOME MANAGEMENT	6
Home Economics 368-9 Home Management	6
BACTERIOLOGY 350	5
BUSINESS ADMINISTRATION 110 Accounting	5
CHEMISTRY 451 Physiological Chemistry	5
EDUCATION 304 Education Psychology	5
Arts and Sciences (See Total Requirements)	5
Electives	13-15
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	89-91

Suggested electives: Home Economics 325, 355, 357, 550, 554, 572; Journalism 368.

MAJOR IN HOME ECONOMICS EDUCATION

The major in Home Economics Education is offered jointly by the School of Home Economics and the College of Education. It fulfills the requirements for teaching in both vocational and non-vocational homemaking departments of Georgia high schools. The graduate in this program is qualified to receive a four year professional certificate.

Students who have not taken home economics courses within six years prior to the date of registration for completion of requirements for a degree in this major or for professional certification must take at least 20 hours of course work in home economics.

JUNIOR AND SENIOR REQUIREMENTS

	Hours
CLOTHING AND TEXTILES	5
Home Economics 321 Advanced Clothing	5
FAMILY DEVELOPMENT	10
Home Economics 390 Infant Development	5
Home Economics 490 Child Development	5
FOOD AND NUTRITION	10
Home Economics 306 Foods	5
Home Economics 351 Nutrition	5
HOUSING AND HOME MANAGEMENT	14
Home Economics 344 Home Nursing	3
Home Economics 364 Family Economics	5
Home Economics 368-9 Home Management	6
HOME ECONOMICS Electives	3
Home Economics 357 Food Demonstration or	3
Home Economics 377 Practical Furnishings	3
EDUCATION	30
Education 455 Adolescent Psychology	5
Education 335.2 Home Economics Curriculum Planning	5
Education 336.2 Home Economics Teaching Procedures	5
Education 346-7-8.2 Home Economics Apprentice Teaching.....	15
Arts and Sciences (See Total Requirements)	10
Electives	7-9
	89-91

Prerequisites for Education 335.2 and 336.2 are as follows: Home Economics 224, 293, 306, 343, 390 or 490; an over-all average grade of 75 or above; evidence of fitness for teaching.

Suggested Electives: Home Economics 359, 370, 461; Art 255; Food Technology 363 or 409; Horticulture 308, 311; Journalism 368; Landscape Architecture 313; Poultry 160; Psychology 358; Physical Education 118, 385, 387; Sociology 427; Education 133, 332.

MAJOR IN FOODS

This major offers training for students interested in educational, experimental, and promotional work in commercial fields, such as home service work, commercial food demonstration, or testing laboratories. Students may confer with adviser in the selection of a sequence of electives to meet individual professional interests.

JUNIOR AND SENIOR REQUIREMENTS

	Hours
FOOD AND NUTRITION	31
Home Economics 306 Foods	5
Home Economics 351 Nutrition	5
Home Economics 357 Food Demonstration	3
Home Economics 370 Food Buying	3
Home Economics 452 or 353 Advanced Nutrition.....	5
Home Economics 550 Experimental Foods	5
Home Economics 554 Experimental Foods	5
FAMILY DEVELOPMENT	5
Home Economics 390 or 490 Infant or Child Development	5
HOUSING AND HOME MANAGEMENT	11
Home Economics 368-9 Home Management	6
Home Economics 546 Equipment Testing or	
Home Economics 547 Lighting and Refrigeration.....	5
BACTERIOLOGY 350	5
EDUCATION Elective	5
SPEECH or JOURNALISM	5
Arts and Sciences (See Total Requirements)	10
Electives	17-19
	89-91

Suggested Electives: Art 208; Chemistry 122, 451; Food Technology 363; Geography 358; Education 304 or 336; Journalism 368; Bacteriology 395.

MAJOR IN FAMILY DEVELOPMENT

CONCENTRATION IN FAMILY LIVING

Preparation for work with agencies dealing with family adjustment, child serving agencies, or positions requiring professional work in family life as a focus. Students interested in research or college teaching in this area will be prepared for advanced study with this major.

JUNIOR AND SENIOR REQUIREMENTS

	Hours
FAMILY DEVELOPMENT	35
Home Economics 490 Child Development	5
Three courses selected from the following.....	15
Home Economics (Sociology 461) The Family	
Home Economics 492 Child Guidance	
Home Economics 493 Family in the Community	
Home Economics 495 Contemporary Family	
Home Economics 496 Parent Education	
APPROVED ELECTIVES in Family Development or Sociology.....	15

CONCENTRATION IN CHILD DEVELOPMENT

Preparation for work with young children through public and private nursery schools, child serving agencies, and childrens' clinics and hospitals. Students interested in research or college teaching in this area will be prepared for advanced study with this major.

JUNIOR AND SENIOR REQUIREMENTS

	Hours
FAMILY DEVELOPMENT	35
Home Economics 490 Child Development	5
Home Economics 492 Child Guidance	5
Home Economics 496 Parent Education	5
Home Economics 591 Pre-School Activities	5
Home Economics 311-12b Nursery School Practicum.....	10
Home Economics 594 Nursery School Problems	5
OTHER JUNIOR AND SENIOR REQUIREMENTS	
FOOD AND NUTRITION	10
Home Economics 306 or 350 Foods	5
Home Economics 351 or 358 Nutrition	5
HOUSING AND HOME MANAGEMENT	6
Home Economics 368-369 Home Management	6
HOME ECONOMICS Elective	5
Arts and Sciences (See Total Requirements)	15-20
Electives	18-20
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	89-91

Home Economics 224, 343, and 390 are required; if possible, they should be taken in the sophomore year.

MAJOR IN GENERAL HOME ECONOMICS

The general major is planned to give a broad cultural course and training for homemaking. There are fewer required courses and opportunity exists for many electives. Specialized interests may be followed through careful choice of electives.

JUNIOR AND SENIOR REQUIREMENTS

	Hours
CLOTHING AND TEXTILES	10
Home Economics 224 Textiles	5
Home Economics 321 Advanced Clothing	5
FAMILY DEVELOPMENT	10
Home Economics 390 Infant Development	5
Home Economics 490 Child Development	5
FOOD AND NUTRITION	15
Home Economics 306 or 350 Foods	5
Home Economics 351 or 358 Nutrition	5
Foods Elective	5
HOUSING AND HOME MANAGEMENT	9
Home Economics 344 Home Nursing	3
Home Economics 368-9 Home Management	6
HOME ECONOMICS Electives	10
Arts and Sciences (See Total Requirements)	10
Electives	30-32
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	94-96

General majors must select at least 15 elective hours in one field over and above specified courses.

MAJOR IN HOME ECONOMICS AND ART

The major in Home Economics and Art is offered jointly by the School of Home Economics and the Department of Art. It is designed to provide an opportunity for specialization in Interior Design, Crafts, Ceramics, Drawing and Painting, or Commercial Art.

JUNIOR AND SENIOR REQUIREMENTS

	Hours
CLOTHING AND TEXTILES	10
Home Economics 224 Textiles	5
Home Economics 321 Advanced Clothing	5
FAMILY DEVELOPMENT	5
Home Economics 390 or 490 Infant or Child Development	5
FOOD AND NUTRITION	10
Home Economics 306 or 350 Foods	5
Home Economics 351 or 358 Nutrition	5
HOUSING AND HOME MANAGEMENT	17-19
Home Economics 343 Household Equipment	5
Home Economics 368-9 Home Management	6
Home Economics 376 or 480 Housing	3-5
Home Economics 377 Practical Furnishings	3
HOME ECONOMICS Electives	10
ART Electives	10-15
Arts and Sciences (See Total Requirements)	15
Electives	7-14
	89-91

Art 120, 130, and 140 and 10 other hours of Art electives are also required in the freshman and sophomore program.

The art electives may be selected with approval of adviser from the areas of Interior Design, Crafts, Ceramics, Drawing and Painting, or Commercial Design.

MAJOR IN HOME ECONOMICS JOURNALISM

The major in Home Economics Journalism is offered jointly by the School of Home Economics and the School of Journalism. It is designed to prepare students for journalistic work related to home economics with newspapers, magazines, radio, television or other areas of the communications field.

JUNIOR AND SENIOR REQUIREMENTS

	Hours
FAMILY DEVELOPMENT	5
Home Economics 390 or 490 Infant or Child Development	5
FOOD AND NUTRITION	10
Home Economics 306 or 350 Foods	5
Home Economics 351 or 358 Nutrition	5
HOUSING AND HOME MANAGEMENT	11
Home Economics 343 Household Equipment	5
Home Economics 368-9 Home Management	6
HOME ECONOMICS Electives	15
PSYCHOLOGY 371	5
JOURNALISM 558	5
JOURNALISM Electives	25
Arts and Sciences (See Total Requirements)	5
Electives	10-12
	91-93

Required are Home Economics 224 and Journalism 101 (or 350); if possible, they should be taken in the sophomore year.

Home Economics Electives. Select 15 hours from one of these groups: (1) 355, 357, 377, 397; (2) 321, 363, 561, 568; (3) 364, 490, 493, 495, 496.

Journalism Electives. Select at least 10 hours in one of three areas listed below; then expand in one area or combine two areas.

Magazine Writing: Journalism 456 and 590, 377, 351, 537.

Radio-Television: Journalism 580 and 585, 386, 583, 584; Speech 150.

Advertising and Public Relations: Journalism 557 and 577, 576, 575, 578; Business Administration 562, 563, 564.

HOME DEMONSTRATION

The degree of Bachelor of Science in Home Economics is required for extension home demonstration work. Students preparing for Agricultural Extension Service should take Agricultural Extension 313 and 314.

Suggested electives: Food Technology 409; Horticulture 101; Poultry 160; Landscape Architecture 313; Speech 150; Journalism 368 and 580; Home Economics 354, 355, 364, 370, 377, 475, and 546.

MAJOR IN HOUSING AND MANAGEMENT

This major provides training for careers in Home Service, management of multiple-unit or public housing projects, and assistants to architects, decorators, and household appliance companies.

JUNIOR AND SENIOR REQUIREMENTS

	Hours
HOUSING AND HOME MANAGEMENT	22
Home Economics 364 Family Economics	5
Home Economics 368-9 Home Management	6
Home Economics 376 Housing	3
Home Economics 377 Practical Furnishings	3
Home Economics 480 Housing Developments	5
Select from the following:.....	10-20
Home Economics 546 Equipment Testing	5
Home Economics 547 Lighting and Refrigeration	5
Home Economics 475 Advanced Furnishings	5
Home Economics 570 Consumer Problems	5
CLOTHING AND TEXTILES	5
Home Economics 321 Advanced Clothing	5
FAMILY DEVELOPMENT	5
Home Economics 390 or 490 Infant or Child Development	5
FOOD AND NUTRITION	10
Home Economics 306 Foods	5
Home Economics 351 Nutrition	5
Arts and Sciences (See Total Requirements)	10
Electives	12-26
	89-91

Electives must be approved by major professor and should be scheduled after requirements of this major have been satisfied. Suggested electives: Agricultural Engineering 104-105; Art 131, 290, 387, 389; Journalism 376; Landscape Architecture 155, 102, 313; Sociology 409, 431; Physics 128, 370; Home Economics 564.

MAJOR IN NUTRITION

This major provides a background for various types of nutrition work such as research, teaching, or as a nutrition specialist in the extension service. It prepares the student for graduate work in nutrition or for a research assistantship in a commercial organization or an educational institution.

JUNIOR AND SENIOR REQUIREMENTS

	Hours
FOOD AND NUTRITION	30
Home Economics 306 Foods	5
Home Economics 351 Nutrition	5
Home Economics 353, 452, and 458 Advanced Nutrition	15
Home Economics 550 or 554 Experimental Foods	5
CLOTHING AND TEXTILES	5
Home Economics 224	5
FAMILY DEVELOPMENT	5
Home Economics 390 or 490 Infant or Child Development	5
HOUSING AND HOME MANAGEMENT	6
Home Economics 368-9 Home Management	6
BACTERIOLOGY 350	5
CHEMISTRY 451	5
EDUCATION Elective	5
SPEECH or JOURNALISM	5
Arts and Sciences (See Total Requirements)	10
Electives	15-17
	89-91

Required are Home Economics 306; Chemistry 121, 122, 260; Human Biology 101; Physics 120; if possible, these courses should be taken prior to the junior year.

Suggested Electives: Business Administration 370; Chemistry 223, 380; French 101, 102; Food Technology 363, 409; German 101, 102; Home Economics 354, 355, 359, 372, 374, 453, and 456; Journalism 368, 377; Mathematics 100, 101, 210, 254; Speech 150.

COURSES OF INSTRUCTION

The University reserves the right to withdraw any course for which the registration is not sufficiently large, and to offer courses not listed should sufficient demand arise and teaching facilities and personnel be available.

Unless otherwise indicated courses meet five hours a week and carry five hours credit.

101. HOME ECONOMICS ORIENTATION. 1 hour. *The Staff.*

A course offered for entering freshmen to help them in personal development, analysis of interests and aptitudes, and vocational planning.

CLOTHING AND TEXTILES

120. CLOTHING SELECTION AND CONSTRUCTION. Two lectures and three double laboratory periods. (Open to non-majors). *Miss Luffman and the Staff.*

Application of basic principles to selection of commercial patterns, fabrics, and ready-to-wear; fundamental techniques in garment construction; grooming and care of clothes.

223. CLOTHING FOR THE FAMILY. 3 hours. Two lectures and one double laboratory period. Prerequisite: Home Economics 120, 224, and 321. Required of clothing and textile majors. *Miss Luffman* and *Miss Johnson*.

Selection of clothing for the family; clothing budgets; construction of garments for family members.

224. ELEMENTARY TEXTILES. Two lectures and three double laboratory periods. Prerequisite: Chemistry 121. (Open to non-majors). *Miss Armstrong* and *Miss Luffman*.

Textile fibers, yarns and fabrics, their source, production, manufacture, properties and identification; selection, use and care of modern textiles; special problems; field trips.

321. ADVANCED CLOTHING SELECTION AND CONSTRUCTION. Two lectures and three double laboratory periods. Prerequisites: Home Economics 120, 224 or equivalent, and Art 120. *Miss Armstrong*, *Miss Luffman*, and *Miss Johnson*.

Advanced dressmaking techniques in handling wool and other types of textile fabrics; clothing based on aesthetic, physical and psychological factors; study of the fashion industry.

325. CLOTHING SELECTION AND GROOMING FOR MEN AND WOMEN. 3 hours. For non-majors (men and women) or home economics majors whose curriculum does not require Home Economics 321. *Miss Armstrong*, *Miss Johnson* and *Miss Luffman*.

Selection of appropriate and becoming clothing for men and women with emphasis on individual problems; aesthetic, socio-economic, physical, and psychological factors related to clothing and grooming; care of clothing.

360. ADVANCED TEXTILES. Two lectures and two three-hour laboratory periods. Prerequisites: Home Economics 224 and Chemistry 260 or equivalent. *Miss Armstrong*.

Advanced study of textiles with emphasis on the newer processes, fibers and finishes; analysis of fibers and fabrics; term problem; field trips.

363. COSTUME DESIGN. Two lectures and three double laboratory periods. Prerequisite: Home Economics 321. With approval of the instructor, may be elected by students majoring in fields other than Home Economics. *Miss Johnson*.

Developing originality and creative ability in designing clothing with consideration of personality, figure type, age and occasion; historic and current fashion influences.

463. HISTORIC COSTUME. Prerequisite: Home Economics 321. With consent of the instructor, may be elected by students of advanced standing who are non-majors. *Miss Johnson*.

A study of historic costume from ancient times to the present; socio-economic, political and religious influences on dress.

561. CLOTHING AND TEXTILE ECONOMICS. Prerequisites: Home Economics 224 or equivalent and 321; Economics 360; or by consent of instructor. *Miss Armstrong*.

Organization, functions and interrelations of the various industries concerned with production and distribution of textiles and clothing; consumption of clothing and household textiles; special problems; field trips.

562. TAILORING. Two lectures and three double laboratory periods. Prerequisites: Home Economics 224 or equivalent and 321. *Miss Armstrong* and *Miss Johnson*.

Planning and making a tailored ensemble; techniques employed in custom made garments.

563. ILLUSTRATIVE MATERIALS IN CLOTHING AND TEXTILES. Two lectures and three double laboratory periods. Prerequisites: Home Economics 321 or equivalent and one other approved senior division course in Clothing and Textiles or consent of instructor. *Miss Armstrong* and *Miss Johnson*.

Preparation of illustrative materials on problems related to selection, construction, and care of clothing and textiles. Designed for teachers, home demonstration agents, and other specialized groups.

564. PATTERN DESIGN AND DRAPING. Two lectures and three double laboratory periods. Prerequisite: Home Economics 321 and 562 or consent of instructor. *Miss Armstrong* and *Miss Johnson*.

Making and using a master pattern in designing garments; designing through draping; emphasis on artistic effects in color, line and texture; application of art principles.

568. (BUSINESS ADMINISTRATION) RETAIL MERCHANDISE INFORMATION. Prerequisite: Home Economics 321 or Economics 360; or consent of instructor. *Miss Armstrong*.

Study of textile products for apparel and household use; factors related to buying, displaying, advertising, and selling textile fabrics and ready-to-wear.

865. CLOTHING AND TEXTILE PROBLEMS. Two lectures, laboratories arranged. Prerequisites: Home Economics 321 and one other approved senior division course, or consent of instructor. *Miss Armstrong*.

New developments in textile products; new techniques in clothing construction; trends in clothing selection. Individual problems based on students' professional needs.

867. CLOTHING AND TEXTILE RESEARCH METHODS. One conference and four library or laboratory periods. Prerequisites: Two approved graduate courses in Clothing and Textiles or consent of the instructor. *Miss Armstrong*.

The philosophy of research applicable to clothing and textile studies, methodology, and interpretation of research literature.

FAMILY DEVELOPMENT

293. (SOCIOLOGY) FAMILY RELATIONS. *Mr. Fowler, Miss Sheerer and the Staff*.

Designed to assist students in preparation for marriage and family living. Personal development and family living, planning for marriage, achieving a happy marriage.

295. (PSYCHOLOGY) INTRODUCTION TO CHILD DEVELOPMENT. Three lectures, three periods of observation in the Nursery School and Infant Center, and one period of laboratory discussion. *Mrs. Allison* and *Miss Sheerer*.

An elementary survey of child development from birth to age of six. Includes physical, social, emotional, and intellectual development.

311b and 312b. NURSERY SCHOOL PRACTICUM. 10 hours. Prerequisite: Home Economics 490 or 295 and Home Economics 591. *Miss McPhaul, Mrs. Allison, and the Staff*.

Nursery School teaching experience is provided in the Nursery School.

390. PRENATAL AND INFANT DEVELOPMENT. Four lectures and two periods of supervised observation in the Infant Center. *Mr. Fowler* and *Miss LaBoon*.

A study of the young family and its early adjustments, particularly with relation to the preparation for and adjustment to children.

397. CREATIVE MATERIALS AND ACTIVITIES IN THE HOME. Prerequisite: Art 120. *Miss LaBoon*.

Functions of creative materials and activities in the home in developing a closer family unity; types of creative activities which can be carried on in the average home with minimum of special materials, equipment, and expenditure.

461. THE FAMILY. (See Sociology).

490. (PSYCHOLOGY) DEVELOPMENT OF THE YOUNG CHILD. Three lectures and four periods of supervised observation in the Nursery School. Prerequisite: Psychology 101 or a satisfactory substitute. *Mrs. Allison, Miss McPhaul, Miss Young, and the Nursery School Staff*.

The physical, mental, emotional, and social development of the pre-school child; the environmental factors influencing the development of the young child and special reference to techniques and guidance.

492. CHILD GUIDANCE. Three lectures and four periods of supervised observation in the Nursery School and Infant Center. Prerequisite: Home Economics 295 or 490 or equivalent. *Miss Sheerer, and the Staff.*

The guidance of young children as based upon a knowledge of their maturation in the pre-school years. Principles, techniques and facilities for guidance of young children.

493. THE FAMILY IN THE COMMUNITY. Prerequisite: Consent of the instructor. *Mr. Fowler and the Staff.*

Factors affecting family life, including national, state, and local legislation and services, mass media of communication, and programs in churches, schools, and communities.

495. CONTEMPORARY FAMILY LIFE. Prerequisite: Work in child development, family relations, or closely related courses. *Mr. Fowler and the Staff.*

A study of the interpersonal relationships of family members at each stage in the family life cycle and of the changing American family.

496. (EDUCATION) PARENT EDUCATION. Prerequisite: Home Economics 490 or 295 or consent of instructor. *Mr. Fowler.*

Working philosophy for parent education; skills in procedure and techniques for working with parents. Opportunity for observation and participation with parent groups, parent conferences, and home visitations.

591. CREATIVE ACTIVITIES FOR THE PRE-SCHOOL CHILD. Prerequisite: Home Economics 490 or 295 and one additional related senior division course. *Miss McPhaul, Miss Harden, and Nursery School Staff.*

Course covers selected types of creative activities for children of the pre-school years, including literature, art, music, nature study and other materials for young children. Practical experience with these in Nursery School.

594. NURSERY SCHOOL LABORATORY PROBLEMS. Four lectures and two periods of supervised practice in the Nursery School. Prerequisite: Home Economics (Psychology) 490 or 295 and one additional related senior college course. *Miss McPhaul and Nursery School Staff.*

Instruction and observation in the basic principles of group management of children from two through five years; guidance in selection of equipment and play materials; administration and organization of a nursery school; visitation of pre-school centers.

798-799. INTERNSHIP IN NURSERY SCHOOL ADMINISTRATION. Prerequisites: Home Economics 490, 492, and 594 or equivalent. *Miss McPhaul and the Staff.*

Instruction, observation, and directed experience in the various phases of Nursery School administration, including program, parent relations, physical plant, equipment, supplies, and finance.

890. RESEARCH IN FAMILY OR CHILD DEVELOPMENT. Prerequisite: Home Economics 490 and one additional approved senior division course. *Miss Young and the Staff.*

Techniques of research; critical evaluation of research studies; planning and developing projects; and research writing in the fields of family and child development.

892. (PSYCHOLOGY) BEHAVIOR PROBLEMS IN CHILDREN. Prerequisite: Home Economics 490 or Education 452. *Miss Sheerer and Miss Young.*

The child's adjustment to his environment with a consideration of the causes, treatment, and prevention of behavior problems. Utilization of case materials. Research problems in the field will be carried out by the students.

893. ADJUSTMENT IN HOME AND FAMILY RELATIONSHIPS. Prerequisite: Courses in family life, child development, or psychology, and consent of the instructor. *Miss Sheerer.*

A study of major areas of adjustment in marriage and family relationships, problems of adjustment, and philosophy and techniques for family counseling.

894. SEMINAR IN CHILD AND FAMILY DEVELOPMENT. Prerequisite: Two senior division courses in Family Development or equivalent. *The Staff.*

Survey of current literature on selected topics in Family and Child Development; discussion of current trends in the field; reports and discussion on selected topics; use of resource materials in the field.

FOOD AND NUTRITION

113. ELEMENTARY NUTRITION. For non-majors. *Miss Newton.*

The fundamental principles of nutrition and their application to every day living. A study of food selection to meet the nutritive requirements of individuals, families and groups.

115. FAMILY MEAL PREPARATION AND SERVING. Two lectures and three two-hour laboratory periods. *Miss Moore and Mrs. Whitehead.*

Introductory course in food preparation based on the planning, preparation, and serving of nutritious and palatable meals for the family.

304. NUTRITION EDUCATION FOR TEACHERS. 3 hours. Prerequisite: Senior college standing. *Miss Beall and Staff.*

A study of the diet habits of Georgia school children and the relation of nutrition to health. Emphasis is placed on how teachers can enrich school and community programs and improve the health of school children through nutrition education.

306. FOODS. Two lectures and three laboratory periods. Prerequisite: Home Economics 115, and Chemistry 260. *Miss Moore.*

Principles of cookery through analysis of basic recipes; the application of principles in preparation of commonly used foods; evaluation of products. Practical examination required.

350. ADVANCED MEAL PLANNING AND SERVING. Two lectures and three double laboratory periods. Prerequisite: Home Economics 115. *Miss Moore and Mrs. Whitehead.*

The planning, preparation, and serving of meals for the family and for special occasions. Selection of food and principles of cookery is emphasized.

351. FOUNDATIONS OF NUTRITION. Two lectures and three double laboratory periods. Prerequisite: Chemistry 260 and Home Economics 306. *Miss Newton.* (Home Economics 306 may parallel this course.)

The requirement of different individuals for energy, protein, minerals, and vitamins; food as a source of daily requirements; and the relation of food and the state of nutrition of an individual to physical fitness.

353. NUTRITION. Two lectures and three double laboratory periods. Prerequisite: Home Economics 306, 351, and Chemistry 451. *Miss Newton.*

The chemical and physical changes involved in the digestion and metabolism of foods. Nutritive value of foods; relative costs of foods; family dietary calculations.

354. QUANTITY COOKERY. One lecture and four double laboratory periods. Prerequisite: Home Economics 306. *Mrs. Whitehead.*

A study of cookery methods applicable to the preparation of foods for institutional or quantity service. Provides for use of institutional equipment, determination of food costs, experience in large cafeteria, and the planning and serving of meals.

355. CATERING. Informal laboratory, equivalent to two lectures and three double laboratory periods. Prerequisite: Home Economics 350, 306, or consent of instructor. *Mrs. Whitehead.*

The planning, preparing, and serving of teas, luncheons, dinners and banquets to large groups. Includes entertaining in the home.

357. FOOD DEMONSTRATION. 3 hours. Three double laboratory periods. Prerequisite: Home Economics 306 or 350. *Miss Moore.*

A continuation of Foods 306 or 350. Taught by student demonstrations which illustrate principles of cookery. Major emphasis is on demonstration techniques.

358. INDIVIDUAL AND FAMILY NUTRITION. Three lectures and two laboratory periods. Prerequisite: Home Economics 115. *Miss Newton.*

A study of nutrition needs of the family and its individuals. Includes a study of food cost in relation to nutritive value. Open to all students.

370. FOOD SELECTION AND BUYING. 3 hours. *Miss Moore.*

A study of sources, comparative values, and storage of foods for home use.

452. ADVANCED NUTRITION. Three lectures and two double laboratory periods. Prerequisite: Home Economics 351 and Chemistry 451 or equivalents. *Miss Newton.*

Digestion and metabolism as related to nutritional status; study and evaluation of low-cost diets. Methods in vitamin assay, blood chemistry and urinalysis.

453. NUTRITION IN DISEASE. Prerequisite: Home Economics 353 or 452. *Miss Newton.*

The modification needed in the normal diet for the treatment of various diseases. Special emphasis is given to the study of digestive diseases, diabetes, diseases of the blood and to general malnutrition.

455. NUTRITION IN INFANCY AND CHILDHOOD. Prerequisite: Home Economics 350 and 358 or equivalents. *Miss Newton.*

Fundamental principles of nutrition during infancy and early childhood. Laboratory work in infant laboratory and nursery school.

458. READINGS IN NUTRITION. Prerequisite: Home Economics 351 and consent of instructor. *Miss Newton.*

Recent developments and the present status of knowledge on selected topics from the field of nutrition. The course is designed specially for those who wish to bring their knowledge up to date.

550. INTRODUCTION TO EXPERIMENTAL FOODS. Two lectures and two three-hour laboratory periods. Prerequisite: Home Economics 306, 351 or consent of instructor. *Mrs. Hood and Miss Moore.*

Study of physical and chemical properties and changes in foods that influence the quality of foods and food products. Experimental methods used on preparation of gels, jellies, egg products, fruits and vegetables and cereal products.

554. EXPERIMENTAL FOODS. Two lectures and two three-hour laboratory periods. Prerequisite: Home Economics 306, 351 or consent of instructor. *Mrs. Hood and Miss Moore.*

Influence of physical and chemical characteristics of meats, batters, doughs and fats on the quality of the foods and food products.

850. SEMINAR IN FOODS AND NUTRITION. Prerequisite: One graduate course in foods or nutrition and consent of instructor. *Mrs. Hood and Miss Newton.*

Survey of current literature on selected topics in food and nutrition. Organized to use classic studies as background material for each topic.

854. SPECIAL TOPICS IN FOODS AND NUTRITION. Prerequisite: One graduate course in foods or nutrition and consent of instructor. *Mrs. Hood and Miss Newton.*

Individual investigation of problems related to foods. Designed to develop initiative in the student in seeking information in a field of special interest.

857. INTRODUCTION TO RESEARCH IN FOODS AND NUTRITION. Prerequisite: One graduate course in foods or nutrition or consent of instructor. *Mrs. Hood and Miss Newton.*

Individual investigation of selected problems in the major field.

858. RESEARCH IN FOODS AND NUTRITION. Prerequisite: Home Economics 857 or equivalent. *Miss Newton and Mrs. Hood.*

The planning and conducting of an individual research problem under supervision.

INSTITUTION MANAGEMENT

372. INSTITUTION MANAGEMENT. Prerequisite: Home Economics 343. *Mrs. Whitehead.*

A study of the problems involved in the management and organization of public and private institutions as hospitals, school food departments, and commercial units; selection of material and equipment; planning and placing equipment in food units.

374. INSTITUTION FOOD PURCHASING. *Mrs. Whitehead.*

A study of storage, net yields, specifications, and grading of food products; food cost control and distribution.

572. ADVANCED INSTITUTION MANAGEMENT PRACTICE. Two conferences and two three-hour laboratory periods. Prerequisite: Home Economics 372, 354, and 374. *Mrs. Whitehead.*

Study of management and of cost control in the college cafeterias. Practice in management of the dining hall. Hours for conference and laboratory work to be arranged.

HOUSING AND HOME MANAGEMENT

175. HOME DECORATING AND FURNISHING. Prerequisite: Art 120. *Miss Hinson* and *Miss Wilson*.

A basic course in furnishing the home for contemporary living. Students have opportunity to apply design principles in planning furnishings for homes.

343. SELECTION, USE, AND CARE OF HOUSEHOLD EQUIPMENT. Prerequisite: Home Economics 115, 175, 224. Two lectures and three double laboratory periods. *Mrs. Edwards*.

A study of household equipment in relation to the homemaker's needs. Basic information in kitchen and laundry planning and home lighting.

344. HOME NURSING. 3 hours. Two lectures and one laboratory period. *The Staff*.

The principles and techniques for home care of the sick.

364. PRINCIPLES OF FAMILY ECONOMICS. Prerequisite: Economics 105. *Miss Mize* and *Miss Jenkins*.

Changes in economic requirements during the family life cycle; forces affecting the economic welfare of families in this country; management of family financial resources; relationships between level of family living and the national economy.

368. HOME MANAGEMENT. 3 hours. Three lectures. Prerequisite: Home Economics 343, 306 or 850, 351 or 358. *Miss Jenkins* and *Miss Wilson*.

A study of the management of family resources, time, money and effort as they affect family living. The course parallels 369 but may be taken separately by non-majors.

369. HOME MANAGEMENT RESIDENCE. 3 hours. Informal laboratory. Prerequisites: Home Economics 306 or 350, 351 or 358, 343. *Miss Hinson*, *Miss Jenkins*, and *Miss Wilson*.

A practical application of the principles involved in 368. The informal laboratory, living in a home management house, provides opportunity for students to experiment with all phases of homemaking.

376. HOUSING. 3 hours. Three lectures. Prerequisite: Home Economics 175, 343, or consent of the instructor. *Mrs. Edwards*.

Present-day housing needs from the standpoint of health, safety, environment, finance, ownership; types of dwellings; minimum standards.

377. PRACTICAL HOME FURNISHINGS. 3 hours. One lecture and two double laboratory periods. Prerequisite: Home Economics 175. *Miss Wilson* and *Staff*.

A course dealing with the refinishing of furniture and construction of furnishings for the home; a study of woods and wood finishes used for furniture; upholstery techniques; making curtains, draperies, slipcovers.

475. HOME DECORATING AND FURNISHING. Three lectures and two double laboratory periods. Prerequisite: Home Economics 175, 376, or 480 or equivalent; Art 131; or consent of instructor. *Miss Wilson*.

A study of decoration and furnishing in the past and present with applications to contemporary interiors.

480. HOUSING DEVELOPMENTS. Prerequisite: Home Economics 175, 343 and a senior division course in social sciences or consent of the instructor. *Mrs. Edwards* and *Miss Mize*.

Development of modern housing as related to family welfare; to health, safety, delinquency, social progress. A survey of housing problems; development of legislation; policies and programs; social and economic trends.

546. HOUSEHOLD EQUIPMENT TESTING. Prerequisite: Physics 120 and Home Economics 343. *Miss Mize*.

The operation, care and arrangement of equipment; the measurement and testing of factors governing the efficiency of different types of equipment.

547. HOME LIGHTING AND REFRIGERATION. Prerequisite: Home Economics 343. *Miss Mize*.

Application to home situations of recent developments in lighting and in refrigeration.

570. CONSUMER PROBLEMS. Prerequisite: Home Economics 368-369. *Miss Mize* and *Miss Jenkins*.

Problems of the household buyer; intelligent selection of goods on modern market; standards of labeling as safeguards in buying; family income and problems of distribution.

887. RESEARCH IN FAMILY HOUSING. Prerequisite: At least two senior division courses in housing or related field. *Miss Mize*.

Application of experimental data as obtained from literature reviews and discussions to the solution of practical problems in family housing.

OTHER GRADUATE COURSES

921. PROBLEMS IN HOME ECONOMICS. Prerequisite: Three graduate courses in Home Economics and consent of major professor. *The Staff*.

The course is designed to provide individual guidance in the development of a significant project related to the student's field of work. A written report of the problem or project will be required.

930. THESIS RESEARCH.

THE SCHOOL OF VETERINARY MEDICINE

THOMAS JOHN JONES, B.S.A., D.V.M., M.S.A., Ph.D., *Dean*

HISTORY

The University of Georgia first offered a degree course in Veterinary Medicine in September, 1918, and graduated the first class in 1922. This course was abolished in June, 1933, and no work in the field was offered until the present school was established in August, 1946. Since its establishment the school has shown consistently favorable development. It became officially recognized as an accredited institution by the Council on Education of the American Veterinary Medical Association in May, 1950. The first class was graduated in June, 1950.

A new modern building which houses all departments of the school was completed in March, 1953. It is well designed and of ample size to serve all functions related to education and training in veterinary medicine. The most modern facilities are to be found in its classrooms and student laboratories, seminar rooms, library, administrative and departmental offices, auditorium, large and small animal clinics and hospitals, and elsewhere throughout the building. In addition, space is conveniently provided for considerable research study.

POLICIES

In November, 1948, at the Southern Governor's meeting in Savannah, Georgia, a compact for regional education in veterinary medicine was ratified. Accordingly, the states of Maryland, Virginia, North Carolina and South Carolina are assigned by the Regional Council on Education to the University of Georgia, School of Veterinary Medicine. Approximately ten students who meet the qualifications from each of those states will be accepted for enrollment in veterinary medicine each September, while twenty qualified students will be accepted from the state of Georgia. This will give a class of 60 new students each year, making a total of 240 students in the school as a whole.

In order to gain admission to the School of Veterinary Medicine, applicants from the above-named states will apply as follows: Application blanks must be secured from the committee on veterinary student selection at the Land Grant Colleges in the respective states. Requests for such blanks should be made by Maryland applicants to Dr. D. O. Wiersig, University of Maryland, College Park, Maryland; by Virginia applicants to Dr. Paul Farrier, Registrar, Virginia Polytechnic Institute, Blacksburg, Virginia; by North Carolina applicants to Dr. E. W. Glazener, Director of Instruction, College of Agriculture, Raleigh, North Carolina; by South Carolina applicants to Prof. J. R. Cook, Animal Husbandry Department, Clemson Agricultural College, Clemson, South Carolina; and by Georgia applicants to Mr. Walter Danner, Registrar, University of Georgia, Athens, Georgia.

All applicants are required to complete the pre-veterinary requirements by the end of the spring quarter or semester preceding the fall that they wish to enter the School of Veterinary Medicine.

OPPORTUNITIES FOR VETERINARIANS

There are numerous fields of service, all of which are expanding, open to graduates of approved schools of veterinary medicine. At present a well qualified veterinarian may enter any one of the following fields of endeavor:

PRIVATE PRACTICE. The vast majority of veterinarians in the United States are in private practice; however, there are still many desirable locations for veterinarians who wish to practice the profession.

GOVERNMENT SERVICE. The Agricultural Research Service and Agriculture Marketing Service, U.S. Department of Agriculture, provide many attractive opportunities under the protection of Civil Service in federal meat inspection, poultry inspection, quarantine, control and eradication of animal diseases, and research in diseases of animals. Veterinarians are also employed in the Veterinary Public Health Section of the United States Public Health Service with Civil Service status.

VETERINARY CORPS OF THE U. S. ARMY AND U. S. AIR FORCE. Veterinary officers in the U. S. Army and U. S. Air Force are commissioned with the rank of first lieutenant up to and including colonel.

STATE VETERINARIANS. Most states have state veterinarians whose official duty is the regulation and control of preventable diseases in the state, with a corps of veterinarians under their supervision. County veterinarians have a similar work in a more restricted area.

MUNICIPAL VETERINARIANS. Many cities employ veterinarians to inspect abattoirs and butcher shops, and meat and dairy products and to serve on municipal boards of health.

TEACHERS IN AGRICULTURAL AND VETERINARY COLLEGES. There is always a demand for well-trained men in these positions, and they command good salaries.

RESEARCH AND INVESTIGATION IN ANIMAL DISEASES. At the state agricultural experiment stations veterinarians are employed who are fitted for original research in the broad field of animal disease.

COMMERCIAL WORK. Veterinarians are employed by large commercial firms to serve on research teams, supervise the health of animal colonies, promotional and sales work, and in the preparation of biological products (tuberculin, serums, vaccines, anti-toxins, etc.) for use in both human and veterinary medicine.

STOCK FARM MANAGERS. A number of veterinarians are serving as managers on stock farms, particularly in breeding districts.

VETERINARIANS FOR ZOOS. As a result of the increased interest in wild animals, many zoological societies employ full time veterinarians to look after the health and sanitary conditions of their animals.

ARTIFICIAL BREEDING SOCIETIES. One of the newest places of employment for veterinarians is the program of artificial insemination, where they direct the work and assume responsibility for the health of the animals involved.

POULTRY INDUSTRY. The ever-increasing economic importance of the poultry industry in this nation demands the services of the veterinary profession. These services are concerned with a wide field of research study as well as the diagnosis and control of poultry diseases in general veterinary practice.

LABORATORY ANIMAL MEDICINE. This is one of the newest fields of specialization in veterinary medicine. It involves, on the one hand, disease

prevention and control in experimental animal colonies maintained by medical schools, medical research centers and industrial research laboratories. Furthermore, because of his training in the problems of animal management, physiology, pathology, nutritional diseases, and genetics, he may also play an important role on the research team involved in programs of animal experimentation. The need for veterinarians, particularly those with advanced training in this specialty, far exceeds the supply.

PRIZES, AWARDS AND HONORS

THE DONALD E. MCKINNEY CUP. This cup is presented each year to an outstanding first year student by Omega Tau Sigma fraternity. The award is made in memory of Donald E. McKinney who was a pledge member of the fraternity. The recipient of this award is selected on the basis of scholarship, leadership, and personality.

THE MARY STEWART GADD AWARD. This award is provided annually by the Women's Auxiliary of the Maryland Veterinary Medical Association. It is a prize of \$25 which is awarded to the Maryland freshman who makes the highest scholastic record during the first year of study in the professional curriculum.

THE M. F. BYRD AWARD. This award is given by Alpha Psi fraternity in memory of the late M. F. Byrd who was a pledge member of the fraternity. It honors the student in the first year class of veterinary medicine who shows the most progress through the year.

THE JAMES O. SCAIFE AWARD. This award is provided by Omega Tau Sigma fraternity in memory of the late James O. Scaife, a Junior student in veterinary medicine. It is given to a Junior student whose selection is based upon scholarship, leadership, and character.

PHI ZETA HONOR SOCIETY. Phi Zeta is a national honorary society devoted to recognizing high scholastic attainment among Junior and Senior students in Veterinary Medicine. To be elected to membership, the Junior student must rank scholastically in the upper 10-per cent of his class and the Senior student must rank among the highest 25-per cent of his class members who were not elected to membership as Juniors.

THE DEAN'S CUP. This cup is awarded annually by the Dean to the member of the fourth year class who has shown the best over-all progress during his four years in the School of Veterinary Medicine.

THE UPJOHN AWARD. These awards are made annually by the Upjohn Company to the members of the fourth-year class. One is presented to the student showing greatest proficiency in large animal subjects and the other to the student most proficient in small animal subject matter. The recipients are selected by the clinical staff of the School of Veterinary Medicine.

WOMEN'S AUXILIARY. This award of \$50 is given by the Women's Auxiliary of the American Veterinary Medical Association to a fourth year student in the School of Veterinary Medicine. The recipient is selected by the faculty on the basis of significance in promoting the status of the veterinary school on the campus.

THE JESSE L. ROBERTS AWARD. This honor is awarded annually by Alpha Psi fraternity to the Senior student showing greatest progress in both large and small animal clinics. It is in memory of Dr. Jesse L. Roberts, a member of Alpha Psi, who died at the end of his senior year in the veterinary school.

THE EQUINE AWARD IN LARGE ANIMAL CLINIC. This annual award is provided by Doctors A. M. Mills and J. D. Edens to honor the senior student showing greatest excellence in equine practice in the large animal clinic and hospital area. It is a silver cup with winners' names inscribed. Possession of the cup is rotated to a new winner near the end of each school year.

MOSS ESSAY CONTEST. The Moss Essay Contest is conducted by the American Animal Hospital Association and is open to students of all accredited veterinary schools in the United States. Participating contestants submit essays on professional ethics to be judged by a committee of the American Animal Hospital Association. First, second and third prizes are awarded to respective winners in each school submitting five or more essays. A grand prize, an all expense trip to the annual meeting of the American Animal Hospital Association, is awarded to the student writing the best of all essays submitted from all schools.

SOUTHEASTERN VETERINARIAN LITERATURE AWARD. (Student Publication of the Student Chapter of the A.V.M.A.) This is a quarterly award of \$5 to be given to any student of the School of Veterinary Medicine, University of Georgia, who submits the best article for publication in this magazine. Recipients are selected by the staff of the magazine.

OTHER AWARDS by individuals, commercial firms, and organizations which are not annual awards are granted on the basis designated by the donor. Upon receipt of such an award, the student body is notified.

DEGREES WITH HONORS

The degree, Doctor of Veterinary Medicine, is awarded with honors to candidates who achieve specified scholastic records. The honors and specified scholastic records are: cum laude for a grade average of 90.0 to 92.9; magna cum laude for an average of 93.0 or better; summa cum laude for a record with all grades A or A+.

GRADUATE WORK

The Department of Veterinary Pathology and Parasitology offers a Master of Science degree program in veterinary pathology and parasitology. The Department of Microbiology and Preventive Medicine offers a Master of Science and Doctor of Philosophy program in medical microbiology and, jointly with the Poultry Disease Research Center and the Poultry Department, an M.S. and Ph.D. degree program in poultry diseases and parasites.

Students seeking admission to the Graduate School should apply to the Dean of the Graduate School, The University of Georgia. For more detailed information, write for The Graduate School Bulletin, The University of Georgia.

ADMISSION REQUIREMENTS

FOR PROFESSIONAL COURSE OF STUDY

In order to matriculate in the School of Veterinary Medicine, a student must present a minimum of 84 to 94* quarter hours credit (exclusive of two years of Military Science or Physical Education) from an acceptable college, with grades of C or better. Candidates are selected on the basis of character, personality, scholastic achievement, and general fitness for the

*See footnote on following page.

study of veterinary medicine. The requirements must be completed by June before admission the following September.

Entering classes in the School of Veterinary Medicine now average in excess of three years of collegiate training. A student admitted with only the minimum requirements will be competing with individuals having three or more years of college and thus better equipped for the modern professional curriculum. Students planning a career in veterinary medicine are, therefore, strongly encouraged to undertake collegiate study over and above the minimum pre-veterinary requirements, preferably leading to the baccalaureate degree in conjunction with the D.V.M. degree.

Minimum Program:

English—at least 15 quarter hours, including a 5 quarter hour course in oral and written composition.

Biological Science—at least 25 quarter hours, including:

Botany	10 quarter hours
Zoology	10 quarter hours
Basic Genetics	5 quarter hours

(Do not include bacteriology in the pre-veterinary curriculum)

Physical Sciences—at least 35 quarter hours, including:

Physics	5 quarter hours
Mathematics	10 quarter hours
Chemistry	20 quarter hours
including 10 quarter hours of organic chemistry.	

Agriculture—one course of 3 to 5 quarter hours each in animal, dairy and poultry husbandry.

Social Sciences—10 quarter hours.*

There are an exceedingly large number of applicants seeking admission. In general, those having the highest scholastic rating will be given preference. It is advisable, therefore, that the student, upon entering college, decide whether he would prefer to continue his education in the College of Agriculture or in the College of Arts and Sciences, so that he may continue in a field other than veterinary medicine with a minimum loss of time in the event that he is not admitted into the School of Veterinary Medicine. Applicants must meet the admission requirements for the University, including age.

All candidates for admission into the entering class in September each year will be required to take during the preceding May or June a veterinary medical aptitude test. The results of this test will become a part of the student's credentials for admittance into the School of Veterinary Medicine.

Applicants for admission to the School of Veterinary Medicine, University of Georgia, who are known to have been dismissed from another veterinary school for any reason, shall not be accepted. Any student who shall gain entrance to the School of Veterinary Medicine by misrepresentation of the facts shall be immediately dismissed.

*The social science requirements may be satisfied by passing the Constitutions Examination and the Examination on American and Georgia History.

SCHOLASTIC REGULATIONS

In addition to regulations governing the grading system of the University (see sections on Academic Regulations and Scholastic Probation and Dismissal in the General Catalogue), students in the School of Veterinary Medicine are subject to a grade-point proficiency evaluation established by the faculty and by student body representatives of the school. A student who fails to make a scholastic average equivalent to at least 1.5 grade-points in any quarter during the professional course of study shall be placed on scholastic probation. A second probation during any subsequent quarter must be satisfactorily removed or the student may be dismissed.

HONOR CODE

The students in the school of Veterinary Medicine have drawn up and are working under a code of honor which covers the three specific areas of lying, cheating and stealing. This code is administered by student representatives from each class, and faculty members are present at trials only in an advisory capacity. The aim of the code is to develop personal integrity and unquestionable honesty as well as the personal responsibilities that are so important in maintaining and improving the ethical standards of the veterinary profession.

FOUR YEAR PROFESSIONAL CURRICULUM

FIRST YEAR

FALL QUARTER				WINTER QUARTER				SPRING QUARTER			
	Lec	Lab	Cr		Lec	Lab	Cr		Lec	Lab	Cr
311 Anatomy	3	15	7	312 Anatomy	2	12	5	313 Anatomy	2	12	5
404 Histology-Embryology	2	6	5	405 Histology-Embryology	2	6	5	406 Histology-Embryology	2	6	5
451 Physiol.				452 Physiol.	4	2	5	406 Physiology	4	2	5
Chemistry	4	2	5	Chemistry	4	2	5	410 Immunology	3	4	5
300 Vet Medicine	2	0	2	380 General Microbiol.	3	4	5				
	11	23	19		11	24	20		11	24	20

SECOND YEAR

	Lec	Lab	Cr		Lec	Lab	Cr		Lec	Lab	Cr
425 Pathology	3	4	5	426 Pathology	3	4	5	427 Pathology	3	4	5
407 Physiology	4	2	5	408 Physiology	3	5	5	410 Endocrinol.	5	0	5
430 Pharmacology	3	0	3	431 Pharmacology	3	2	4	405 Parasitology	2	3	3
422 Pathogenic Microbiology	3	4	5	451 Virology	2	3	3	461 Clin. Pathol.	3	6	5
	13	10	18		11	14	17		13	13	18

THIRD YEAR

	Lec	Lab	Cr		Lec	Lab	Cr		Lec	Lab	Cr
402 Large Animal Medicine	5	0	5	403 Large Animal Medicine	5	0	5	404 Large Animal Medicine	5	0	5
410 Small Animal Medicine	3	0	3	411 Small Animal Medicine	3	0	3	412 Small Animal Medicine	3	0	3
420 Surgery	5	0	5	421 Surgery	5	0	5	416 Obstetrics & Obst. Dis.	5	0	5
442 Poisonous Plants	0	4	2	424 Surgical Techniques	arr. cont'd.			424 Surgical Techniques	3	6	4
406 Parasitology	3	4	5	403 Applied Anatomy	1	2	2	432 Pharmacother	3	0	3
450-a Clinic Orientation	0	4	1	407 Parasitology	3	7	5	450-c Clinic Orientation	0	4	1
	17	12	21	450-b Clinic Orientation	0	4	1		19	10	21
					17	14	21				

SUMMER QUARTER — REQUIRED, 10 HOURS

451 Large Animal Clinics & Conf. (3 hrs.)	476 Ambulatory Clinics & Conf. (2 hrs.)
456 Small Animal Clinics & Conf. (3 hrs.)	471 Pathol. Diagnosis & Conf. (2 hrs.)

FOURTH YEAR

	Lec	Lab	Cr.		Lec	Lab	Cr.		Lec	Lab	Cr.
475 Poultry Diseases	5	0	1	484 Food Hygiene	5	0	5	480 Public Hlth.	3	0	3
470 Inf. & Epizotic Dis.	3	0	3	471 Inf. & Ep. Dis.	5	0	5	450 Nut. & Def. Diseases	5	0	5
480 Radiology	3	0	3	485 Bus. & Ethics	2	0	1	487 Jurisprud.	2	0	1
462 Clinic Seminar	arr.	cont'd		462 Clinic Seminar	arr.	cont'd		426 Surg. Ex.	0	2	1
452 LA Clin&Conf	0	9	3	453 LA Clin&Conf	0	9	3	462 Clinic Seminar	6	0	1
457 SA Clin&Conf	0	9	3	458 SA Clin&Conf	0	9	3	454 LA Clin&Conf	0	9	3
477 Amb Clin & Conf	0	6	2	478 Amb Clin & Conf	0	6	2	459 SA Clin&Conf	0	9	3
472 Path Diag & Conf	0	6	2	473 Path Diag & Conf	0	6	2	479 Amb Clin & Conf	0	6	2
	11	30	21		12	30	21	474 Path Diag & Conf	0	6	2
									16	32	21

REQUIREMENTS FOR THE DEGREE—DOCTOR OF VETERINARY MEDICINE

Upon completion of the four year professional curriculum, including a satisfactory proficiency evaluation and evidence of satisfactory performance in the required clinical courses, the student will be recommended by the Dean, through the Faculty, of the School of Veterinary Medicine for the degree of Doctor of Veterinary Medicine (D.V.M.).

DEPARTMENTS OF INSTRUCTION

The University reserves the right to withdraw any course for which the registration is not sufficient and to offer courses not here listed should sufficient demand arise and teaching facilities and personnel be available.

Unless otherwise indicated all courses meet five times a week and carry five hours credit.

ANATOMY AND HISTOLOGY

Head: Westerfield. Staff: Weinman and Whittaker

311-312-313. GROSS ANATOMY OF THE DOMESTIC ANIMALS. 17 hours. 311: Two lectures and 16 hours of laboratory. 312-313: Two lectures and four three-hour laboratory periods each quarter. *Mr. Weinman and Mr. Whittaker.*

Topographic and systematic study by complete dissection of the horse, ox, sheep (or goat), pig, dog, and fowl.

403. APPLIED ANATOMY OF THE DOMESTIC ANIMALS. 2 hours. One lecture and two hours of laboratory. *Mr. Weinman and Mr. Whittaker.*

A special study of anatomy as related to diagnosis, surgery, and obstetrics.

404-405-406. HISTOLOGY AND EMBRYOLOGY OF THE DOMESTIC ANIMALS. 15 hours. Two lectures and three two-hour laboratory periods. *Mr. Westerfield.*

The development of the vertebrate from the origin of the germ cells through fertilization, cleavage, germ layers, and organogenesis with special attention to the fetal membranes, placenta, and teratology, and the microscopic structure of the various tissues and organs of the animal body correlated with gross anatomy.

410. ANATOMICAL TECHNIQUE. 2 to 5 hours. Three hours of laboratory for each credit hour. Prerequisite: Anatomy 313 and 406 or their equivalent. Offered on demand. *Mr. Westerfield and Staff.*

Instruction in the technique of preparation of animals for dissection as well as methods of preparation of material for microscopic study.

MICROBIOLOGY AND PREVENTIVE MEDICINE

Head and Director Medical Microbiology Program: Kleckner.

Staff: Davis, Foster, Gerard, Sims, VanEseltine.

Associate Staff: Boyd, Reid, Richey, Schmittle.

Director General Bacteriology Program: Payne.

Staff: Bennett, Eagon, Giddens, Hamby, Howe, McClung.

Instruction in microbiology is coordinated with the curricula in the Department of Bacteriology, College of Arts and Sciences and the Departments of Food Technology, Dairy, and Agronomy, College of Agriculture. For additional course listings in this and related fields, see announcements of College of Arts and Sciences and College of Agriculture.

The curriculum in Poultry Diseases and Parasites is coordinated with the Poultry Department, College of Agriculture and the Poultry Disease Research Center, College Experiment Station. For additional course listings, see announcements of Poultry Department, College of Agriculture.

MEDICAL MICROBIOLOGY

380. INTRODUCTORY VETERINARY MICROBIOLOGY. Three lectures and two double laboratory periods. Prerequisites: First year veterinary curriculum. Other qualified students by arrangement with the head of the Department. *Mr. VanEseltine.*

Covers the fundamental principles and techniques of the science of microbiology.

410. (BACTERIOLOGY) IMMUNOLOGY. Three lectures and two double laboratory periods. Prerequisites: Bacteriology 380 or 409 and Chemistry 451 or consent of instructor. Veterinary Building. *Mr. Foster.*

Mechanisms of infection and host resistance; principles and techniques of serology.

422. (BACTERIOLOGY) PATHOGENIC BACTERIOLOGY. Three lectures and two double laboratory periods. Prerequisites: Bacteriology 410. Veterinary Building. *Mr. VanEseltine.*

Studies in the morphological, cultural and physiological properties of the important pathogenic bacterial and mycotic agents; their relation to health and disease is emphasized.

450. (BACTERIOLOGY) VIROLOGY. Three lectures and two double laboratory periods. Prerequisites: Bacteriology 410. Veterinary Building. *Mr. Foster.*

An introduction to the viruses and rickettsiae; principles and methodology.

451. ANIMAL VIRUSES. 3 hours. Two lectures and three hours of laboratory. Prerequisite: Second year veterinary curriculum, or consent of instructor. *Mr. Foster.*

Studies on the viruses as infectious agents embracing the important viral diseases of animals including the zoonoses.

810. (BACTERIOLOGY) IMMUNOCHEMISTRY. Two lectures and three double laboratory periods. Prerequisite: Bacteriology 410 or permission of the instructor. Veterinary Building. *Mr. Foster.*

Detailed investigation into the chemistry of antigenically active substances and mechanisms of immunological reactions. Lecture emphasis will be on current literature.

816. (BACTERIOLOGY) SEMINAR IN MICROBIOLOGY. 1 hour per quarter. One hour per week maximum three quarters. Available to majors in bacteriology, zoology, plant sciences, veterinary pathology and parasitology, agriculture, with two courses in bacteriology as prerequisite. Biological Sciences Building.

Meetings for discussion of research and new developments in the field.

820. (BACTERIOLOGY) ADVANCED PATHOGENIC MICROBIOLOGY. Prerequisites: Bacteriology 422 and 450. Veterinary Building. *Mr. VanEseltine.*

A detailed study of the pathogenic bacteria and their relationship to diseases.

900. (BACTERIOLOGY) PROBLEMS IN MICROBIOLOGY. Maximum credit of 10 hours. Must be preceded by at least two graduate courses in bacteriology. *The Staff.*

This course allows students to pursue intensive study under the direction of staff members, on approved problems in medical, agricultural, marine and general microbiology.

VETERINARY PREVENTIVE MEDICINE

200. VETERINARY HYGIENE. Prerequisites: Zoology 225, 226; Bacteriology 350. Offered to students in the College of Agriculture. *Mr. Gerard.*

A survey course dealing with the common diseases of livestock in Georgia, with emphasis on prevention and control through better management and sanitation on the farm.

373. (POULTRY) POULTRY HEALTH. Prerequisite: Poultry Husbandry 160 and Bacteriology 350. Offered to students majoring in poultry husbandry and others that are qualified. *Mr. Davis.*

A study of the common infectious, parasitic and nutritional diseases of poultry; their cause, diagnosis, prevention and control.

470-471. INFECTIOUS AND EPIZOOTIC DISEASES. Eight hours. Prerequisite: Fourth year veterinary curriculum. *Mr. Kleckner.*

A study of the infectious and epizootic diseases of animals; embracing the history, etiology, transmission, symptoms, lesions, diagnosis and treatment of each disease.

475. POULTRY DISEASES. Prerequisite: Fourth year veterinary curriculum. *Mr. Davis.*

A study of the etiology, epidemiology, pathogenesis, diagnosis, prevention, control and treatment of infectious, nutritional and parasitic diseases of poultry.

480. VETERINARY PUBLIC HEALTH. 3 hours. Prerequisite. Fourth year veterinary curriculum. *Mr. Gerard.*

A study of the sanitary, epidemiological and regulatory aspects of public health programs, particularly as human health is affected by diseases of animals transmissible to man; the veterinarian's role in local, state and federal public health organizations.

484. FOOD HYGIENE. Prerequisite: Fourth year veterinary curriculum. *Mr. Gerard.*

A survey of the municipal, state and federal regulatory measures governing transportation, slaughter, merchandising and disposal of meat, meat food products and poultry; the application of dairy hygiene and public health measures to the production, processing and distribution of clean, safe milk and dairy products.

800. SEMINAR IN VETERINARY PREVENTIVE MEDICINE. 1 hour credit per quarter. Maximum of 3 credits toward any one degree. Prerequisites: Graduate standing in veterinary medicine or an allied field. *Mr. Kleckner and Staff.*

808. (POULTRY) PARASITIC DISEASES OF POULTRY. Prerequisite: Zoology 372 or equivalent. *Mr. Reid.*

An intensive study of life histories and ecological factors useful in control of poultry parasites.

809. (POULTRY) POULTRY DISEASES AND PARASITES. *Mr. Kleckner.*

An intensive course in poultry disease diagnosis. Various diseases will be studied, using cases sent in from the field as materials, and the development of skill in the use of laboratory diagnostic techniques will be emphasized.

811. (POULTRY) PROBLEMS IN POULTRY DISEASES AND PARASITES. *Mr. Kleckner, Mr. Reid, Mr. Schmittle.*

This course allows students to work intensively on approved problems after selection of the specialized area with the appropriate staff member.

MEDICINE AND SURGERY

Head: Mills. Staff: Adsit, Bentley, Causey, Christy, Corley, Edens, Foy, Hoffman, Jones, Kittrell, Kreuz, Loveless, McLendon, Morton, Taul.

300. VETERINARY MEDICINE. 2 hours. Two lectures per week. *Mr. Jones and faculty, together with prominent graduate veterinarians.*

A survey of the scope, objectives, obligations and opportunities in the broad field of veterinary science.

402-403-404. LARGE ANIMAL MEDICINE. 15 hours. *Mr. Hoffman, Mr. Mills and Mr. Morton.*

The pathology, diagnosis and treatment of large animal diseases.

410-411-412. SMALL ANIMAL MEDICINE. 9 hours. *Mr. Causey.*

The pathology, diagnosis and treatment of diseases of small animals.

416. OBSTETRICS AND GENITAL DISEASES. *Mr. Mills and Mr. Taul.*

A study of the principles of veterinary obstetrics and diseases of breeding animals.

420-421. SURGERY. 10 hours. *Mr. Causey and Mr. Kreuz.*

A survey of general surgical pathology, therapeutics, wound infection, asepsis, anti-sepsis, anesthesia, and the fundamentals of operative techniques. Including also a detailed study of special and regional surgery of both large and small animals.

424. SURGICAL TECHNIQUES. 4 hours. *Mr. Causey and Mr. Kreuz.*

Surgical exercises cover instructions, demonstration and practice on preoperative preparation, anesthesia, operative techniques, and post-operative care of both large and small animals.

426. SURGICAL EXERCISES. 1 hour. Fourth Year Curriculum. *Mr. Kreuz.*

Completion by each student of a minimum of fourteen preassigned surgical exercises which demonstrate his knowledge of surgical principles and surgical techniques.

480. RADIOLOGY. 3 hours. *Mr. Corley.*

The principles of radiology; darkroom, X-ray and fluoroscopic techniques; radiologic aspects of diseases and injuries in animals; and introduction to the therapeutic use of X-ray.

485. ETHICS AND BUSINESS. 1 hour. *Mr. Morton and faculty, together with prominent graduate veterinarians.*

A study of the ethical obligations and business aspects of veterinary practice.

487. JURISPRUDENCE. 1 hour. *Mr. Bentley.*

A survey of the laws and regulations governing veterinary medicine, including contracts, leases, liabilities, stockyard and transportation laws.

THE VETERINARY CLINICS

Clinical instruction is provided by the joint staffs of the Departments of Medicine and Surgery; Pathology and Parasitology; Microbiology and Preventive Medicine; and Physiology and Pharmacology.

Each student, for a minimum of 10 weeks during the Summer quarter, and throughout the Fourth Year term, is on duty each day during clinic hours and on call at all times, under staff supervision. Clinic conferences are supervised by the clinic staffs but entail active participation by each student.

Clinics are grouped into four major instructional units: LARGE ANIMAL—medicine and surgery, including Outpatient Clinic and Hospital; SMALL ANIMAL—medicine and surgery, including Outpatient Clinic and Hospital; PATHOLOGICAL DIAGNOSIS, encompassing—Poultry Disease, Clinical Pathology, Necropsy, and Parasitology Laboratories; AMBULATORY—Farm Service.

450 a-b-c. CLINIC ORIENTATION. 1 hour credit each quarter. *The Staff.*

This course is intended to prepare the student for clinic preceptorship. He will be instructed in the techniques of examining, treating and handling and caring for animals. There will be a certain number of formal lectures. Emphasis will be placed on actual participation by the student.

- 451-452-453-454. LARGE ANIMAL CLINICS. 3 hours credit each quarter.
 456-457-458-459. SMALL ANIMAL CLINICS. 3 hours credit each quarter.
 471-472-473-474. PATHOLOGICAL DIAGNOSIS. 2 hours credit each quarter.
 476-477-478-479. AMBULATORY CLINICS. 2 hours credit each quarter.

462. CLINICAL SEMINAR. 1 hour credit. *Mr. Hoffman.*

Students will prepare and deliver reports on topics of their choice; usually in the form of clinical case reports, with a lecture on some aspect pertinent to the case. Reports are under clinical staff supervision and both faculty and students engage in discussions following presentation of the reports.

PATHOLOGY AND PARASITOLOGY

Head: Sikes. Staff: Hayes, Jordan, Morgan

405-406-407. VETERINARY PARASITOLOGY. 13 hours. 405: Two lectures and one two-hour laboratory period. 406: Three lectures and two two-hour laboratory periods. 407: Three lectures, three hours of seminar and two two-hour laboratory periods. *Mr. Hayes and Miss Jordan.*

A study of the parasites of domestic animals, their economic importance in livestock production and public health. Included are studies on taxonomy, distribution, diagnosis, and control of parasitic protozoa, helminths, and insects. Specific therapeutic measures are also included where available.

425. GENERAL ANIMAL PATHOLOGY. Three lectures and two double periods of histopathological laboratory. *Mr. Sikes.*

An introduction to pathology and the consideration of the phases of pathological processes including the reparative processes.

426. SYSTEMATIC ANIMAL PATHOLOGY. Three lectures and two double periods of histopathological laboratory. *Mr. Sikes.*

The application of general pathological processes to various body systems with emphasis on their clinical manifestations. The gross and microscopic study of neoplasms.

427. SPECIAL ANIMAL PATHOLOGY. Three lectures and two double periods of postmortem laboratory. *Mr. Sikes.*

The pathology of specific infectious and nutritional diseases and instruction and practice in the proper postmortem techniques and evaluations.

461. CLINICAL PATHOLOGY. Three lectures and two three-hour laboratory periods. *Mr. Morgan.*

The course is designed to instruct the student in the performance of hematological, cytological, bacteriological, serological, urological, parasitological and histopathological examinations as an aid in the diagnosis of animal diseases. Emphasis is placed on the correlation of results with fundamental changes in diseases and clinical manifestations. Approved methods for preparing and submitting samples to the laboratory are considered.

GRADUATE COURSES

801. PATHOLOGY OF PARASITIC DISEASES IN ANIMALS. Prerequisites: Veterinary Parasitology 405-406-407 and Pathology 425-426-427 or equivalent. *Mr. Sikes and Mr. Hayes.*

A study of pathologic alterations produced in animals. Work will include helminths, protozoa and arthropods.

802. VETERINARY PATHOLOGY AND PARASITOLOGY. Prerequisites: Pathology 801 or its equivalent. *Mr. Sikes and Mr. Hayes.*

A continuation of 801.

803. VETERINARY SURGICAL PATHOLOGY. Prerequisites: Veterinary Pathology 425-426-427-461 or their equivalents. *Mr. Sikes.*

Studies are made on clinical indications for biopsy and the diagnosis of individual surgical cases.

805. PROBLEMS IN VETERINARY PATHOLOGY AND PARASITOLOGY. Prerequisites: Pathology 425-426-427 or their equivalent. *Mr. Sikes and Mr. Hayes.*

Detailed studies are made of diseases of birds and mammals.

814, 815, and 816. SEMINAR IN VETERINARY PATHOLOGY AND PARASITOL-
OGY. 1 hour each course. Prerequisites: Graduate standing in Veterinary
Medicine or a closely allied field of interest. *The Staff*.

820-821. THE PATHOLOGY OF NUTRITIONAL DISEASES OF ANIMALS. 10 hours.
Mr. Sikes.

Detailed studies of gross and microscopic alterations of tissues, organs, and systems
of animals and birds which have received excessive or deficient nutritive elements.

PHYSIOLOGY AND PHARMACOLOGY

Head: Piercy. Staff: Knapp, Kornfeld. Associate Staff: Cormier,
Duncan, Sewell.

310. PHYSIOLOGY OF DOMESTIC MAMMALS. Four lectures and one three
hour laboratory period. Prerequisites: Zoology 226 and Chemistry 260 (or
equivalent). (Offered each Winter Quarter). *Mr. Knapp* and *Mr. Piercy*.

A general and comparative consideration of physiological phenomena with emphasis
on body fluids, circulation, respiration, digestion and metabolism, renal function,
endocrinology, and reproduction as related to farm animals. A course especially ar-
ranged for students majoring in animal, dairy, or poultry husbandry.

451. PHYSIOLOGICAL CHEMISTRY. Four lectures and one two hour labor-
atory period. *Mr. Cormier*.

A survey of the fundamental biochemical processes which occur in the animal body.

452. PHYSIOLOGICAL CHEMISTRY. Four lectures and one two hour labora-
tory period. *Mr. Cormier*.

A continuation of Physiological Chemistry 451 with advanced study of the chemistry
of physiological processes.

406-407-408. COMPARATIVE MAMMALIAN PHYSIOLOGY. 15 hours. 406-407:
Four lectures or recitations and one two hour laboratory period each
quarter. 408: Three lectures, three hours of seminar and one two hour
laboratory. *Mr. Piercy* and *Staff*.

A comparative study of mammalian physiology relating consecutively to the nervous
system, muscles, body fluids, circulation, respiration, digestion, the urinary system,
nutrition, body heat, endocrinology and reproduction.

410. VETERINARY ENDOCRINOLOGY. *Mr. Kornfeld*.

A survey and study of endocrine functions.

430-431. VETERINARY PHARMACOLOGY. 7 hours. 430: Three lectures. 431:
Three lectures and one two hour laboratory period. *Mr. Knapp*.

A study of essential pharmacological principles including mathematics, prescription
writing, drug classification, pharmacodynamics.

432. VETERINARY PHARMACOTHERAPEUTICS. 3 hours. Fourth year veteri-
nary curriculum. *Mr. Knapp*.

A study of pharmaceutical and biological preparations which places special emphasis
upon modern therapeutics in veterinary medicine.

442. POISONOUS PLANTS. 2 hours. Two double periods of demonstrations,
laboratory or field trips. *Mr. Duncan*.

A study of plants in the Southeastern United States that are poisonous to livestock
with emphasis on their identification and distribution.

450. ANIMAL NUTRITION AND DEFICIENCY DISEASES. Prerequisite: Fourth
year standing in the School of Veterinary Medicine. *Mr. Sewell* and *Mr.*
Jones.

A detailed consideration of the relative values of different crops, feeds and products,
and their use in meeting the nutritive requirements of the various classes of farm
animals, including also diseases of nutritional origin with emphasis on deficiencies in
naturally occurring feeds.

DIVISION OF THE ARMED SERVICES

ALVIN BLOCKSOM BISCOE, A.B., M.A., Ph.D., *Coordinator*

CARL RICHARD HILL, B.S., Colonel, USA, *P.M.S.*

GEORGE KENNETH CRAIN, B.S.M.E., Colonel, USAF, *P.A.S.*

The mission of the Reserve Officers' Training Corps is the production of junior officers who have qualities and attributes essential to their progressive and continued development in the Army or the Air Force of the United States. All physically qualified freshman male students must enroll in and complete two years of basic ROTC as a requirement for graduation with the exception of veterans, non-citizens, and those otherwise exempted. Students who fail or fail to complete any ROTC Basic Course are required to re-enroll for that course the first time it is again offered.

Students transferring from other institutions who were enrolled in the Senior Division ROTC at any time prior to such transfer are required to continue ROTC training to completion of the Basic Course. Such students will normally be required to continue in the branch of service of prior enrollment. Students entering at sophomore or higher level without prior Senior Division ROTC, or equivalent, are not required to enroll in the ROTC program at this University. Students who have completed ROTC courses in essentially military preparatory schools or junior colleges will be given appropriate credit toward their college ROTC requirement. No credit is given for high school ROTC participation.

Special attention is given to the maintenance of high standards of conduct and academic achievement. The courses are focused on the development of individual leadership and a sense of responsibility for duty as a citizen reserve officers of the National Military Establishment.

For statements about fees, uniforms and textbooks see pages 88-89.

SUBSISTENCE ALLOWANCE

Students contracting to pursue the advanced courses are paid a monthly monetary allowance in lieu of subsistence at a daily rate equal to the value of the commuted ration, which for the fiscal year 1961 is 90 cents per day.

SUMMER CAMP

Students contracting to pursue the advanced courses are required to attend ROTC summer camp, normally between the two academic years of the advanced courses. Students attending this camp are messed and quartered, paid at the rate of a soldier or airman of the 1st grade, and given a travel allowance of 5c per mile from their homes to camp and return.

DEPARTMENT OF ARMY MILITARY SCIENCE AND TACTICS

The first two years are known as the basic course and the second two years are known as the advanced course. Only about one in four students completing the Basic Course is selected for admission to the Advanced Course. For selection a student must be physically qualified, must have maintained above average military and academic standing throughout the Basic

Course and must have demonstrated a potential for further leadership development.

Graduates of the Advanced Course are commissioned as Second Lieutenants in the United States Army Reserve in the arm or service most appropriate to their interests and academic achievements consistent with the needs of the Army. They are exempt from selective service requirements and instead will be called to active duty within twelve months after graduation and will serve in their commissioned status for a period from six months to two years depending upon the prevailing requirements and circumstances. Graduates may be granted delay in reporting for active duty for graduate study in many fields. A number of outstanding graduates are offered commissions in the Regular Army each year.

ARMY COURSES

The Basic Course consists of two hours of classroom work and one hour of drill per week throughout the freshman and sophomore years.

The Advanced Course consists of four hours of classroom work for two quarters each year in the junior and senior years and one or more hours of drill per week for the entire junior and senior years. Certain additional elective academic courses are prerequisites to an Army commission. The PMS or the faculty adviser can furnish information concerning these courses.

1 a-b-c. **MILITARY SCIENCE AND TACTICS:** 6 hours. A general course in Organization of the Army and ROTC, United States Army and National Security and individual weapons and marksmanship.

2 a-b-c. **MILITARY SCIENCE AND TACTICS:** 6 hours. A general course in small unit tactics, map and aerial photograph reading and American Military History.

350 a-b. **MILITARY SCIENCE AND TACTICS:** 6 hours. A more advanced course in leadership, Military Teaching Methods, Branches of the Army, Small Unit Tactics and Communications.

351 a-b. **MILITARY SCIENCE AND TACTICS:** 6 hours. An advanced course in Logistics, Operations, Military Law, Administration, Personnel Management and Service Orientation.

351 f. **ARMY AVIATION.** 3 hours. For qualified seniors. Consists of 35 hours of ground school instruction and 35 hours of flight training leading to a pilot's license. Students must agree to continue Army Aviation training on active duty.

DEPARTMENT OF AIR SCIENCE

The first two years are known as the basic course and the second two years are known as the advanced course. Only one out of approximately every nine entering students is selected for admission to the advanced course under a numerical quota limitation. Selection for the advanced course is based on physical suitability and interest in the Air Force together with achievement records of academic ability, observed leadership traits, and the results of a competitive mental officer qualification test.

Normally, commissioned graduates are scheduled to be called to active duty from one to twelve months after graduation. Flying training requires approximately one year and is followed by four years of active duty. Those commissioned in non-flying categories (e. g.: meteorology, administration, Chaplain) have a four-year service commitment. Those who wish to take graduate training in certain fields such as physics, nuclear chemistry, and others for which there is a critical need, may request a delay in call to active duty.

AIR FORCES COURSES

The basic course consists of two hours of classroom work and one hour of drill and outdoor instruction per week.

The advanced course consists of four hours of classroom work and one hour of drill per week.

5 a-b-c. FOUNDATIONS OF AIR POWER—1. 6 hours. The Freshman Year. A general survey of aerospace power, the mechanics of aerospace vehicles, and a general introduction to the composition and necessity of national security forces. Instruction includes Potentials of Air Power, Air Vehicles and Principles of Flight, the Military Instrument of National Security, and Professional Opportunities in the USAF.

6 a-b-c. FOUNDATIONS OF AIR POWER—2. 6 hours. The Sophomore Year. A more advanced examination of the aerospace capabilities of the USAF. Instruction includes The Evolution of Aerial Warfare, Target Selection, Weapons, Delivery Vehicles, Bases, Materiel, Personnel, USAF Operations in Peace and War, and Problems and Possibilities of Space Operations.

355 a-b-c. AIR FORCE OFFICER DEVELOPMENT. 9 hours. The Junior Year. An introduction to the principles of leadership and the knowledge, understanding, attitudes, and skills that are basic to effective performance as an Air Force Officer.

356 a-b-c. GLOBAL RELATIONS. 9 hours. The Senior Year. An intensive study of global relations of special concern to the Air Force Officer with emphasis on international relations and geography. Instruction also includes weather, navigation, and briefing for commissioned service.

INDEX

	Page		Page
Absences	71	Business Research, Bureau of	353
Academic Advisers	120	Calendar	3
Academic Regulations	66, 70	Campus, Map of	4, 5
Academic Year Calendar	3	Certificate, Admission by	59
Administrative Officers		Chemistry, Courses in	160
—Educational	10	Classics, Courses in	164
—General	9	Classification of Students	67
Admission requirements		Clinic, University of Georgia.....	209
Methods of Admission	56	Colleges and Schools	
—By Certificate	59	—Agriculture	251
—By Examination	59	—Arts and Sciences	119
—Irrregular Students	61	—Business Administration	352
—Advanced Standing	60	—Education	319
Transfer Students	59	—Forestry	309
Age Requirements	61	—Graduate	102
Graduate School	102	—Home Economics	395
School of Law	221	—Journalism	378
School of Pharmacy	241	—Law	221
School of Veterinary Medicine.....	415	—Pharmacy	241
Advanced Degrees		—Veterinary Medicine	415
—General	104	College Entrance Examination	
—Professional	108	Board's Scholastic Aptitude	
Agricultural Chemistry	257	Test	56
Agricultural Economics	258	Conferences	96, 97
Agricultural Education, Depart- ment of	263	Constitutions: Examinations	70
Agricultural Engineering	298	Continuing Education	95
Agricultural Experiment Stations.....	252	Correspondence and Extension.....	69, 71, 96
Agricultural Extension	252, 265	Counselors, Students	72, 83, 120
Agriculture, College of	251	Courses	
Agronomy, Department of	267	—Changes in	71
Air Science	69, 72, 88, 428	—Numbering	68, 103
Alumni Society	99	Credits, Units of	66, 69
Animal Husbandry, Department of.....	271	Dairy, Department of	277
Anthropology and Archaeology, Courses in	212	Debating Societies	86
Armed Services	69, 72, 88, 427	Degrees Offered	61
Art, Courses in	149	Degree Requirements	69
Art, Department of	134	Bachelor of Arts	123
Arts and Law Combined	144	Bachelor of Arts in Journalism.....	384
Arts and Sciences, College of.....	119	Bachelor of Fine Arts	133
Assistantships	115	—Major in Art	135
Astronomy, Courses	200	—Major in Drama.....	142
Athletic Association	99	—Major in Music.....	138
Athletics	85, 99	—Major in Speech	142
Atlanta Area Teacher Education Service	87, 321	Bachelor of Landscape Architecture	304
Attendance	71	Bachelor of Laws	226
Aviation, Courses in	360, 370	Bachelor of Music	139
Bacteriology, Courses in	155	—Major in Music Education.....	140
Biology, Courses in	217	Bachelor of Science	123
Board and Lodging	63	—Science and Medicine Curriculum	145
Board of Regents	8	—Science and Veterinary Medicine Curriculum	146
Botany, Courses in	157	Bachelor of Science in Agriculture	255
Buildings and Grounds	54	—Bachelor of Science in Agri- culture Major in Agricultural Education	263, 324
Business Administration, College of	352		
Business and Law Combined	365		

	Page		Page
Bachelor of Science in Agricultural Engineering	298	Fraternities	
Bachelor of Science and B.S. Engineering Degree	146	—Honor	73
Bachelor of Business Administration	355	—Social	86
Bachelor of Science in Chemistry	130	French, Courses in	186
Bachelor of Science in Education	319	Freshman Registration	63
Bachelor of Science in Forestry	313	General Educational Development Tests	60
Bachelor of Science in Home Economics	397	Georgia Center for Continuing Education	95
Bachelor of Science in Landscape Architecture	305, 306	Geography, Courses in	173
Bachelor of Science in Pharmacy	245	Geology, Courses in	177
Bachelor of Science in Physics	131	German, Courses in	188
Doctor of Education	112, 319	Gilbert Infirmary	84
Doctor of Philosophy	102, 106	Grades, Scholastic	66-68
Doctor of Veterinary Medicine	420	Graduate Assistants	49, 115
Master's Degree	104, 108	Graduate School	102
Dismissal Regulations	72	Greek, Courses in	165
Dormitories		Grounds and Buildings	54
—Men	63	Health Service	84, 87
—Women	64	History, Courses in	178
Dormitory and Dining Hall Fees	63-66	History: Examinations	70
Drama, Department of Speech and	141	History of University	53
—Courses in	213	Home Economics, School of	395
Economics, Courses in	166, 374	Honors and Honor List	73, 74
Education, College of	319	Honor Societies and Fraternities	73
Educational Studies and Field Services, Bureau of	319	Honors and Prizes	73, 74
Employment, Student	94	Horticulture, Department of	289
English, Courses in	169	Housing for Students	63
Entomology, Courses in	171	Human Biology Courses	217
Entrance Requirements	56	Independent Study	73
Examination, Admission by	59	Industrial Arts	330, 347
Executive Development Program	354	Infirmary	84
Expenses (See Fees and Housing)	86	Institutes	96-98
Experiment Stations, Agricultural	252	Irregular Students	61
Extension Division—General	95	Italian, Courses in	189
(See Continuing Education)		Journalism, School of	378
Faculty	11	Journalism and Law Combined	388
Family Counseling Service	396	Laboratories	55
Fees and Expenses	86	Landscape Architecture	304
—Non-Resident Fees	87	Late Registration Fee	62, 89
—Refunds	90	Latin, Courses in	165
—Special Fees	88, 89	Law and Government, Institute of	224
—Summary	91	Law, School of	221
—Time and Method of Payment	89	—Admission to	225
Fellows	48	—Arts and Law Combined	144
Fellowships	115	—Business and Law Combined	365
Film Library	97	—Journalism and Law Combined	388
Financial Aid	91	Lecture Series	85
—Employment	94	Legal Residence, Requirements	88
Fine Arts, Course in	173	Libraries	54
Fine Arts, Division	132	Library Education, Courses in	348
Food Technology, Department of	284	Library Staff	48
Foreign Areas Majors	128	Literary Societies and Debating	86
Forensic Activities	86	Load of Work	
Forestry, School of	309	—Normal	68
Foundation, The University of Georgia	100	—Variations	68
		Loan Funds	91
		Lucas, Arthur Memorial Fund	100

	Page		Page
Marine Biology Laboratory	118	Requirements for Graduation (See	
Master's Degrees	104, 108	Degree Requirements)	69
Mathematics, Courses in	181	Research Assistants	51, 115
Medical Examinations	62, 84	Research, University	117
Medical Technology Major	146	Residence Requirements	69
Men's Dormitories	63	Russian Language, Courses in	189
Michael Award	100	Scholarships and Loan Funds	74, 91
Microbiology (See Bacteriology)		Scholarships	74, 115
Military Science	69, 72, 88, 427	Scholastic Grades	66, 68
Military Fees	88	Schools and Colleges	
Minimum Residence Requirements.....	69	(See Colleges and Schools)	
Modern Foreign Languages	186	Science and Medicine Combined.....	145
Music Appreciation	85	Short Courses	97
Music, Department of	137	Shorthand and Typing, Courses in.....	365
—Courses in	192	Social Science Course	209
Non-Resident Students	87	Social Work, Pre-Professional Major	129
Numbering System of Courses.....	68, 103	Sociology and Anthropology,	
Nursing, Department of	147, 197	Courses in	210
Oak Ridge Institute of Nuclear		Sororities	86
Studies	118	Spanish, Courses in	190
Orientation Week	63	Speech Correction	143, 216, 338
Pharmacy, School of	241	Speech, Courses in	213
Philosophy, Courses in	197	Speech and Drama, Department of.....	141
Physical Education	69, 328, 348	Statistics, Institute of	98, 185
Physical Examination	62, 84	Student Activities, Eligibility for	73
Physical Science Course	200	Student Center	86
Physics and Astronomy, Courses in	199	Student Classification	67
Placement Examinations	63	Student Conduct	71
Placement of Graduates	94	Student Counseling	72, 83, 120
Plant Pathology and Plant Breed-		Student Employment	94
ing, Department of	292	Student Health	84
Political Science, Courses	203	Student Life and Activities	83
Poultry, Department of	295	Student Publications	86
Pre-Medical Course	145	Teaching Assistants	50, 115
Pre-Nursing Program	147	Teacher Certification	114, 129, 321, 323
Pre-Pharmacy Program	148, 245	Transfer Students	59, 121
Pre-Veterinary Medicine	148, 253, 418	—Modification of Degree	
Press, the University of Georgia.....	98	Requirements	121
Prizes and Honors	73	University Calendar	3
Probation Regulations	72	University Foundation	100
Psychology, Courses in	205	University, History of	53
Publications	86	University Press	98
Quarter System	55	Valedictorian	73
Reading and Study Skills Course.....	71	Veterans, Program for	66
Refunds of Fees	90	Veterinary Medicine and	
Regents, Board of	8	Agriculture	254
Registration	62	Veterinary Medicine, School of	415
—Freshman	63	Vocational Education	246
Regulations Governing Students		Withdrawal from the University.....	71
—Academic	66, 70	Women's Dormitories	64
Religion, Courses in	199	Work, Normal Load of	68
Religious Activities	86	Workshops, Education	321
Reports	72	Zoology, Courses in	217



