

The Bulletin of the
UNIVERSITY of MINNESOTA

General Information for the Year 1944-1945



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April 8, 1944

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THE UNIVERSITY MEETS THE CHALLENGE

The University of Minnesota owes its existence to an Act of the Territorial Legislature back in 1851—seven years before Minnesota became a state. Those early leaders knew that education was a basic essential in a democracy and they wished above everything else that Minnesota should go far in the many enterprises—agriculture, industry, business, the professions—which make a people successful and the individuals themselves prosperous.

Out of those early, modest beginnings the University has grown and developed. Between World War I and the Pearl Harbor incident it had attained world-wide recognition in its teaching and research, and its state-serving activities had left their impress on every home in the state. The value of higher education as the best preparation for a successful and well-rounded career had passed the stage of being a debatable issue, and long since had attained an almost universal recognition. The staff and other instructional facilities of the University which the citizens of the state had made available were of such high quality as to provide an enviable educational opportunity to all who could profit from it.

When industry, business, and other national enterprises were forced to gird themselves for war, higher educational institutions were in the forefront. They assumed the responsibility for one of the most important, immediate tasks—the training of specialized personnel for the armed services and for war industries. At the same time they continued to train for those essential civilian services which must not be halted even when a nation is at war. Enough time has now elapsed so that all can see that the universities have done their jobs well. The fact that the armed services have used the higher educational institutions and that this use has been of vital importance has not been lost on the young men and women who are serving their country. They see now, if they did not before, that a university is so important and so flexible that instead of being only a peacetime necessity, it is one of the essential wartime necessities.

It is clear to all who have studied the problem, that when peace comes and demobilization begins, the University and other similar institutions will face the greatest demand for educational service that has ever been faced in history. Already, study has begun here at the University of Minnesota of the problems involved. The range of needs represented by those who seek admission will undoubtedly necessitate the construction of many new courses and the creation of additional curricula. These changes may even be considered drastic, but if they contribute to essential individual development, they will be quickly made. Whether a war-torn world can ever adjust satisfactorily to peace is determined more by what it does educationally than by any other single factor. The University of Minnesota will continue to provide its students with the best possible training to meet the needs of the postwar world; and both its research and service to the state will be aimed at easing the difficult transition from war to peace.

W. C. Coffey

President

ORGANIZATION OF THE UNIVERSITY

The University is organized in schools, colleges, and divisions as follows:

GENERAL COLLEGE

COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS
SCHOOL OF JOURNALISM

INSTITUTE OF TECHNOLOGY

COLLEGE OF ENGINEERING AND ARCHITECTURE
ENGINEERING EXPERIMENT STATION
SCHOOL OF CHEMISTRY
SCHOOL OF MINES AND METALLURGY
MINES EXPERIMENT STATION

DEPARTMENT OF AGRICULTURE

COLLEGE OF AGRICULTURE, FORESTRY, AND HOME ECONOMICS
SCHOOLS OF AGRICULTURE

CENTRAL SCHOOL, UNIVERSITY FARM
NORTHWEST SCHOOL, CROOKSTON
WEST CENTRAL SCHOOL, MORRIS
NORTH CENTRAL SCHOOL, GRAND RAPIDS

AGRICULTURAL EXPERIMENT STATIONS

STATE EXPERIMENT STATION, UNIVERSITY FARM
NORTHWEST EXPERIMENT STATION, CROOKSTON
WEST CENTRAL EXPERIMENT STATION, MORRIS
NORTH CENTRAL EXPERIMENT STATION, GRAND RAPIDS
NORTHEAST DEMONSTRATION FARM AND EXPERIMENT STATION,
DULUTH
SOUTHEAST DEMONSTRATION FARM AND EXPERIMENT STATION,
WASECA

FRUIT BREEDING FARM, EXCELSIOR
FOREST EXPERIMENT STATIONS, ITASCA AND CLOQUET
AGRICULTURAL EXTENSION DIVISION
SHORT COURSES IN AGRICULTURE

LAW SCHOOL

MEDICAL SCHOOL

COURSE IN MEDICAL TECHNOLOGY
COURSE IN PHYSICAL THERAPY
COURSE IN X-RAY TECHNOLOGY
SCHOOL OF NURSING
SCHOOL OF PUBLIC HEALTH

SCHOOL OF DENTISTRY

COURSE FOR DENTAL HYGIENISTS

COLLEGE OF PHARMACY

COLLEGE OF EDUCATION
UNIVERSITY HIGH SCHOOL

GRADUATE SCHOOL

MAYO FOUNDATION
SCHOOL OF SOCIAL WORK

SCHOOL OF BUSINESS ADMINISTRATION

UNIVERSITY EXTENSION SERVICE

GENERAL EXTENSION DIVISION
CORRESPONDENCE STUDY DEPARTMENT
AGRICULTURAL EXTENSION DIVISION
MUNICIPAL REFERENCE BUREAU
ENGINEERING, SCIENCE, AND MANAGEMENT WAR TRAINING COURSES
CENTER FOR CONTINUATION STUDY

High school graduates who meet requirements for admission by certificate p. 14 will be allowed advanced standing to the extent that educational experience in the Armed Forces is applicable to the curriculum to be followed. High school, ASTP, V-12, and Armed Forces Institute records should be filed with the director of admissions and records. Write to the director of admissions and records for application for admission.

High school graduates who do not meet requirements for entrance by certificate may be considered for admission by examination, p. 13. General Educational Development examinations given by the Armed Forces Institute will be accepted in lieu of university examinations normally required. Students accepted by examination may receive advanced standing for educational experiences in the Armed Forces. High school, ASTP, V-12, and Armed Forces Institute records should be filed with the director of admissions and records. Write to the director of admissions and records for application for admission.

Students previously enrolled—Advanced standing for educational experience in the Armed Forces will be allowed to the extent that work completed is applicable to the curriculum followed providing such work does not duplicate courses already credited. ASTP, V-12, and Armed Forces Institute records should be filed with the director of admissions and records. Write to the director of admissions and records for application for readmission.

Applicants from other colleges and universities—Returning service men and women, who attended other colleges or universities prior to induction, who desire to transfer to the University of Minnesota should file a transcript of record from the institution attended (if less than one year of college work was completed, high school record should also be submitted), ASTP, V-12, and Armed Forces Institute records with the director of admissions and records. Write to the director of admissions and records for application for admission with advanced standing.

COUNSELING FACILITIES*

The Student Counseling Bureau, 101 Eddy Hall, will assist veterans returning to college with pre-admission advising, in considering the selection of college and curriculum and in planning a suitable program of courses to be approved by a college adviser. Vocational guidance service through aptitude testing and individual counseling is also offered at the bureau. The Student Counseling Bureau has established relations with the United States Armed Forces Institute to advise veterans wishing to secure credits for service or special military training through the institute. Application forms from the institute may be brought to the bureau to be filled out and signed. Special examinations for admission or credit, requested by the office of admissions and records or the departments of the colleges may be arranged through the Student Counseling Bureau. Decisions regarding the granting of credit are made by the college concerned.

College advisers—Special advisers and counselors and co-ordinating committees for veterans are established in each of the colleges of the University. After a returned veteran has been admitted to the University, referral to the appropriate counselors will be made, for assistance in program planning and study problems. If you are in need of special assistance at any time during your college course, see the special veterans adviser for your college:

General College, S. T. Holmstrom, WeH 300
College of Science, Literature, and Arts, D. G. Paterson, Psy 114A
Institute of Technology, G. C. Priester, E 208
College of Engineering and Architecture
School of Chemistry, M. C. Sneed, C 245
School of Mines and Metallurgy, L. S. Heilig, AH 102

* See also Personnel Aids, p. 45.

College of Agriculture, L. H. Harden, Ad 202(UF)
 School of Agriculture, J. O. Christianson, Ad 205(UF)
 Law School, M. E. Pirsig, L 111
 Medical School, C. D. Creevy, EMH 513M and MeS 136
 School of Dentistry, W. F. Lasby, MeS 149
 College of Pharmacy, C. V. Netz, WuH 306
 College of Education, M. Edwards, Bu 202
 Graduate School, W. T. Heron, Psy 253
 School of Business Administration, R. L. Kozelka, VH 313
 Extension Division, W. Dickerman, CCS 14
 Library Division, B. Moen, Lib 515
 University College, J. W. Buchta, Ph 147

Other counseling agencies—Specialized counseling agencies available to veterans include the Speech Clinic, Students' Health Service, Bureau of Loans and Scholarships, Student Activities Bureau, Reading Clinic, Student Union, and others.

FINANCIAL AIDS*

Veterans' Administration—A veteran may receive vocational training under the Veterans' Administration provided (1) he served during the present war; (2) he received an honorable discharge; (3) his disability is service-connected and was incurred subsequent to December 7, 1941; (4) his disability is rated 10 per cent or more and constitutes a vocational handicap for his pre-war occupation; (5) he needs vocational rehabilitation to overcome the handicap caused by his disability.

Veterans approved for training will have tuition fees, books, supplies, and allowance for maintenance paid by the government.

Application may be made to the Veterans' Administration, 54th and 48th Avenue South, Minneapolis 6, Minnesota.

Minnesota Department of Veterans' Affairs—Under the State Rehabilitation Law, 1943, honorably discharged veterans of the present war, providing they are not receiving like benefits from the federal government, may, under certain conditions, receive state aid for vocational training.

Veterans approved for training will have tuition paid by the state. The state allowance provides tuition only.

Application may be made to the Minnesota Department of Veterans' Affairs, 512 Ryan Building, 7th and Robert Streets, St. Paul 1, Minnesota.

* See also Financial Aids, p. 49.

ADMISSION*

Admission to any college of the University of Minnesota requires that the applicant meet certain standards and requirements established for the University and colleges. The procedures necessary for the determination of the applicant's admission status and registration are listed step by step.

I. Admission to Undergraduate Colleges

A. APPLICATION PROCEDURE

All inquiries, credentials, and applications for admission to the undergraduate colleges should be addressed to the Director of Admissions and Records, University of Minnesota, Minneapolis 14, Minnesota.

Every new student must file an application blank and an official copy of his record from the last school attended. Students entering from other colleges or universities should read the paragraph on Admission with Advanced Standing, page 18.

Application blanks may be obtained at any Minnesota high school, or from the director of admissions and records, University of Minnesota.

Applications and transcripts of records should be filed at least two months before the opening of the quarter for which admission is desired.

Later applications will be accepted, but late applicants may find it difficult to meet entrance requirements through lack of time to make up discrepancies between the credits they present and the University's requirements for admission.

Whenever possible, credentials should be sent in directly by the proper official at the school last attended, and should not be presented in person by the student.

The university year is divided into four quarters. The fall, winter, and spring quarters make up the college year from September to June. The fourth quarter includes two summer terms.

Freshmen will enter the Institute of Technology and the Course for Dental Hygienists at the beginning of the summer quarter in June.

Freshmen in Pharmacy will enter at the beginning of the fall quarter in September.

Freshmen entering the Institute of Technology, Course for Dental Hygienists, or Pharmacy other quarters will necessarily be irregular in their programs and will find it difficult to complete their courses in the normal time.

The curricula in the College of Science, Literature, and the Arts, College of Agriculture, Forestry, and Home Economics, College of Education, and General College have been arranged so that it is possible for students to enter these colleges at the opening of any quarter. Freshmen in these colleges who desire to accelerate their programs of study are urged to enter in June.

Applicants for the five-year course are accepted for the prenursing work in the College of Science, Literature, and the Arts in any quarter. They may enter the School of Nursing, with the prenursing work completed, in the fall, winter, or spring quarters, altho the spring quarter is preferable. Applicants for the two and one-half year curriculum who are college graduates may enter the School of Nursing any quarter. The class admitted summer quarter is reserved for college graduates only. Applicants for the three-year course are admitted at the beginning of the fall and winter quarters only, unless they have completed at least 75 college credits, in which case they may enter in the spring quarter, with the five-year students.

* See also Information for Men and Women with Military Service Records, pp. 8-10.

Following are the registration dates :

Summer quarter, 1944

Registration..... June 12-13
Classes begin..... June 14

Fall quarter, 1944

Registration and Freshman Week..... September 25-29
Classes begin..... October 2

Winter quarter, 1945

Registration..... January 2
Classes begin..... January 3

Spring quarter, 1945

Registration..... March 31, April 2
Classes begin..... April 3

Summer quarter, 1945

Registration..... June 18-19
Classes begin..... June 20

A detailed calendar for the year 1944-45 will be found on pages 6-7.

Most of the colleges of the University require applicants to take certain tests for admission or classification purposes. Freshmen entering any college except the Institute of Technology (Engineering and Architecture, Chemistry, and Mines and Metallurgy), the School of Nursing, and the Course for Dental Hygienists are required to write the college aptitude test. Freshmen entering the College of Science, Literature, and the Arts, College of Education, or College of Pharmacy, in addition are required to write an English placement test and theme. Institute of Technology students are required to write only the English placement test and theme. The University in co-operation with the Minnesota high schools sponsors the state-wide testing program which provides applicants with the opportunity of taking these tests during their senior year in high school. Applicants from Minnesota high schools are urged to avail themselves of this opportunity. Other applicants may take tests at the University at any time and are urged to do so a month or more in advance, if possible, and not later than two weeks before the registration period for the quarter for which admission is desired.

An admission certificate will be mailed to each student who has met the requirements. Students entering from other colleges or universities will also receive a statement of advanced standing. Instructions for registration will either be enclosed with the admission certificate or will be mailed later—about one month before the opening of the quarter. Students must present their admission certificates when they come to register.

The University recognizes the need of giving newcomers an introduction to the academic and social world which they are entering. The week before the opening of fall quarter classes is set aside as a general orientation week known as Freshman Week. Much of the program is concerned with the problems of those who are entering as freshmen altho newly entering advanced standing students will also find much of interest and are urged to attend the exercises of Freshman Week.

ALL FALL QUARTER FRESHMEN MUST REGISTER FOR FRESHMAN WEEK ON SEPTEMBER 25 OR 26 AND MUST BE IN ATTENDANCE THROUGHOUT THE FRESHMAN WEEK PERIOD CLOSING ON SEPTEMBER 29.

Admission to the following schools and colleges requires two or more years of preprofessional work as indicated, either at the University of Minnesota or at some other recognized college or university. The content of the preprofessional course is listed in the bulletin of the college offering the work. This bulletin should be obtained from the director of admissions and records. On entering the University, the applicant must meet the admission requirements of the college in which the preprofessional work is to be taken.

Music—A four-year course leading to the degree of bachelor of arts, in which the theoretical and practical work in music is combined with the study of psychology, modern languages, English literature, and history. The object is to provide a well-rounded cultural course for those who are preparing for professional work in music.

Journalism—Professional training for journalism is provided by a major in the School of Journalism together with required or advised work in other fields. The course is built upon the principle that a well-trained journalist must possess a broad cultural training, a prerequisite to successful journalistic work, plus a sound working knowledge of the theory and technique of his profession. The curricula of the school permit students to acquire training for the varied tasks in the fields of communication, including daily and weekly newspapers; general, class, trade, and other publications; advertising, circulation, and business management; radio news processing and radio script writing; public relations; media analysis; journalism teaching, and agricultural journalism (in co-operation with the College of Agriculture, Forestry, and Home Economics). The course leads to the degree of bachelor of arts.

A war emergency program in the School of Journalism also provides an accelerated course of six terms. The program will give to students a necessary minimum of specialized training for junior positions in newspaper and magazine writing and editing, advertising, and radio writing.

Library Training—A five-year course including four years in this college and a full year (45 quarter credits) in professional library instruction subjects. At the end of the fourth year students may receive the degree of bachelor of science. The same degree is also given to college graduates who take a complete year in Library Instruction.

Public Health—Students in this college may major in this field.

Preparation for theological training—A four-year course with a liberal arts major in philosophy, history, and the other social sciences.

2. **Specialized curricula of five or more years**—The following specialized curricula are offered in the College of Science, Literature, and the Arts:

Course in Training for Public Administration—A six-year course, during the first four years of which the student pursues a program of liberal education with a major in political science and a minor in one of the other social sciences, or a major in some field of specialization represented in government service and a minor in political science. The fifth year is devoted to advanced studies in public administration, public law, and related subjects. Internship training with a governmental agency is arranged for the sixth year. The degree of bachelor of arts or bachelor of science is given at the end of four years; the degree of master of arts in public administration is conferred upon the completion of the sixth year.

Course in Training for Diplomatic and Consular Service—A five-year course leading to the degree of bachelor of arts at the end of the first four years. At the end of the fifth year students whose programs satisfy the requirements of the Graduate School may receive the degree of master of arts.

Course in Training for Social Work—A six-year course, during the first four years of which the student secures a broad education with special attention to history, economics, political science, psychology, preventive medicine and public health, and sociology. The fifth and sixth years are devoted to technical subjects and professional training in social work. The degree of bachelor of arts is given at the end of four years; a special certificate and the degree of master of arts are conferred upon the completion of the sixth year.

3. **Combined arts and professional courses**—The College of Science, Literature, and the Arts offers the following combined arts and professional courses:

Combined course in Arts and Medicine—An eight-year course leading to the degrees of bachelor of arts and doctor of medicine.

Combined course in Arts and Laws—A seven-year course leading to the degrees of bachelor of arts and bachelor of laws.

Combined course in Arts and Dentistry—A seven-year course leading to the degrees of bachelor of arts at the end of five years and doctor of dental surgery at the end of the seventh year.

Combined course in Arts and Dental Hygiene—A four-year course leading to the degrees of graduate dental hygienist at the end of two years and bachelor of arts at the end of four years.

Combined course in Arts and Architecture—A six-year course in Arts and Architecture leading to the degrees of bachelor of arts at the end of four years and bachelor of architecture at the end of the sixth year.

4. Preprofessional training—In this college is given also the academic work required for admission to the Medical School, Law School, School of Dentistry, School of Business Administration, and College of Education; and also the courses preliminary to (1) nursing education and public health nursing in the College of Education and in the Medical School, and (2) training for medical technologists in the Medical School.

5. A two-year course leading to the degree of associate in liberal arts—This two-year course is (1) for those who know in advance that they will be in college for only two years; (2) for those who begin college as candidates for a degree in a four-year or longer course of study and find out later that they want formal recognition for the completion of a shorter course. The course of study is elective under certain broad limitations. Students may choose freely from the many subjects of study offered by the college to freshmen and sophomores. The only restrictions are these: (1) normally the work must be completed in six or seven quarters of residence; (2) the student must meet requirements in English and in at least two of these three groups of subjects: foreign languages, social sciences, and natural sciences.

6. Accelerated training for women in wartime work—Special courses to prepare women for wartime and essential civilian positions in journalism, statistics, physics, social work, and office work. More complete information concerning these programs may be secured by writing to the dean of the College of Science, Literature, and the Arts.

7. The college welcomes students who have definite intellectual interests but who do not expect to graduate or enter one of the professional schools. Such students may continue in college as long as they maintain a satisfactory standing in the studies they elect. During their Junior College years a wide variety of courses is open to them. After that period they may continue work in their fields of interest as nonclassified students under the direction of the Students' Work Committee.

INSTITUTE OF TECHNOLOGY

The Institute of Technology embraces the College of Engineering and Architecture, the School of Chemistry, and the School of Mines and Metallurgy.

The College of Engineering and Architecture offers professional courses of study in the following fields:

Aeronautical Engineering	Engineering Prebusiness
Civil Engineering	Engineering and Business
Electrical Engineering	Administration (5 years)
Mechanical Engineering	Architecture
Agricultural Engineering (in co-operation with the College of Agriculture, Forestry, and Home Economics)	

The School of Chemistry offers professional courses of study in the following fields:

Chemistry	Chemical Engineering	Physics
Chemistry or Chemical Engineering and Business Administration (5 years)		

The four-year course leading to the degree of bachelor of physics (B.Phys.) includes a minimum of 59 credits in physics, 34 credits in mathematics, and 42 credits in chemistry. The course is designed for students who desire to enter the field of industrial physics or special graduate work in physics as a major. Students in chemistry may take curricula in combination with bacteriology, biochemistry, and geology.

Each of these courses leads to the Bachelor's degree in the respective field (as bachelor of aeronautical engineering or bachelor of chemistry). Optional groups of electives are available in some of the courses for students who desire to devote special attention to certain branches, such as Engineering Administration.

The School of Mines and Metallurgy offers professional four-year courses of study in the following fields:

Mining Engineering	Petroleum Engineering
Geological Engineering	Metallurgical Engineering

These courses lead to the respective degrees: bachelor of mining engineering, bachelor of geological engineering, bachelor of petroleum engineering, bachelor of metallurgical engineering.

The Engineering Prebusiness Course requires the first two years of work in the Institute of Technology. This is followed by two years in the School of Business Administration upon the satisfactory completion of which the degree of bachelor of business administration is conferred.

Engineering and Business Administration—Five-year combined courses are available for students who desire more extensive preparation for administrative positions while including one of the regular engineering or chemistry curricula. The student is thus able to obtain the degree of bachelor of business administration at the end of the fifth year, after having also completed his engineering or chemistry course for his Bachelor's degree.

Graduate work—Work is also offered in the Graduate School leading to the Master's degree in the appropriate branches of engineering, architecture, chemistry, or metallography and metallurgy, and to the degree of doctor of philosophy in various fields.

The Engineering Experiment Station is a research organization, which provides facilities for studies, experiments, and investigations in the various fields of engineering and technology, under the direction of members of the staff. Several research assistantships are available for part-time graduate students. Results of investigations are published in the Bulletin of the Engineering Experiment Station. Research funds to support special studies are provided by industries in some cases.

COLLEGE OF AGRICULTURE, FORESTRY, AND HOME ECONOMICS*

The College of Agriculture, Forestry, and Home Economics offers (a) four-year courses in the fields of agriculture, forestry, and home economics, leading to the bachelor of science or equivalent degree, and (b) five-year curricula as follows:

Agriculture—Five-year curriculum (with College of Education) in Agricultural Education leading to the degree of master of education.

Five-year curriculum in Agricultural Technology leading to the degree of agricultural technologist.

Forestry—Five-year professional curricula in General Forestry, Range Management, and Game Management, leading to the degree of master of forestry.

Home Economics—Five-year curriculum (with College of Education) in Home Economics Education leading to the degree of master of education.

Registration and continuance in certain of the curricula of this college are conditional upon maintenance of scholarship higher than the general average. This includes such curricula as Science Specialization, Food Technology, Wildlife Management, Pre-veterinary Medicine, and Agricultural Education. Initial registration in such curricula for students entering directly from high school is therefore conditional upon the freshman

* See Organization of the University, page 4, for a statement of other activities of the Department of Agriculture.

orientation tests given to entering freshmen in Freshman Week or at other times during the year. However, students who are not permitted to register in these curricula at entrance upon the basis of these tests, may later in the freshman year transfer to the desired curriculum if their scholastic achievement justifies such a change.

Students transferring from other colleges may, upon entrance, be registered in these special curricula, but continuance in these curricula is conditional upon the maintenance of the required scholastic average. The following curricula are offered:

ALL-COLLEGE

Food Technology Curriculum—This curriculum provides special training in preparation for industrial fields such as meat packing; processing, storage, and distribution of fruits, vegetables, and other perishables; canning and pickling. It includes also milk products and the products of milling and related industries. Training for these fields includes major subject-matter specialties in botany, zoology, biochemistry, bacteriology, and chemical engineering. Students intending to enter the Food Technology Curriculum should have a fairly definite professional or vocational program and must consult the special faculty advisory committee for this curriculum (see the recorder or the office of the dean of the college), with whose approval a program of subject-matter courses may be selected under the limits described. The curriculum presented is intended merely to show the wide range of available subject-matter courses, especially those basic to the whole field, from which the student must select those best suited for a particular program. While this is a normal four-year curriculum, certain scientific specialties may demand graduate work.

While the employment possibilities are probably chiefly in the various food industries, additional opportunities exist in various federal, state, and municipal government bureaus and offices as well as in colleges and in private research institutions.

Science Specialization Curriculum—This curriculum provides for more intense specialization, particularly in the sciences basic to many fields of agriculture, forestry, and home economics. Only that amount of technical training in practical fields is required which deals with the special science or field selected. Selection of the Science Specialization Curriculum should, in practically all cases, be followed by graduate study to at least the Master's degree. Students who do not have records in high school considerably above average should not attempt the Science Specialization Curriculum.

Wildlife Management Curriculum—The curriculum or pattern will be selected and built up with the aid of an adviser for the special vocational or professional objectives which the student has in mind. The work involves a wide range of activities including the management of upland game, big game, waterfowl, fish, and fur bearers in parks and forests and on wildlife preserves and privately owned lands; it also includes the artificial propagation of game and fur species and the encouragement of nongame species. Students may also prepare themselves for teaching in colleges and universities, for research and experimental work in various state and federal departments, and for management and extension work in state and federal departments concerned with utilization of our natural resources. See also Lake Itasca Forestry and Biological Station, page 40, and Game Management Curriculum in Forestry, page 27.

AGRICULTURE

Four-Year Curricula

Technical Agriculture Curricula—These curricula are arranged for students who plan to enter one or more of the technical or applied fields of agriculture immediately upon graduation. Students may, however, continue in graduate work for further specialization. Training is offered for all types of farming in this area, for county agent and extension work, and for technical agricultural work in agricultural industries, in

dairy and animal husbandry, agronomy and plant industries, horticulture, agricultural engineering, landscape gardening, farm management, agricultural economics, and agricultural business.

Pre-theological "major" in agriculture—A Bachelor's degree (B.S.) based on a broadly defined major in agriculture is now accepted for admission to a large number of the theological seminaries. Such a major has been strongly recommended by these seminaries as a valuable preparation for rural church work. The conditions of this major are satisfactorily met by registration in Technical Agriculture and by a careful selection of the minor and of limited and free electives in order to meet the social science and other requirements defined by the Conference on Co-operation between Colleges of Agriculture and Theological Seminaries, as follows: "At least one basic course in each of the following fields: Agricultural Economics, Economics, English Literature, History and Government, Philosophy, Public Speaking, Psychology, Rural Sociology, Sociology. In addition, the student would fulfill the minimum requirements of the College of Agriculture which include English Composition and Science (usually botany and chemistry)."

Pre-Veterinary Medicine Curriculum—This curriculum of one year may vary in accordance with the veterinary college to be selected by the student. In general, the requirements would follow the plan of the Agricultural Science Curriculum, but special variations from this curriculum may be provided upon recommendation of the adviser. Because of the grade requirements for entrance to veterinary colleges an average grade of close to B in pre-veterinary medicine is essential.

Agricultural Education Curriculum—Designed especially for those who plan to teach agriculture in the public schools. This curriculum (given jointly with the College of Education) follows in general the technical agriculture groups and permits emphasis on majors in special technical agricultural fields, such as dairying, horticulture, farm management, etc. It also offers special training in education and leads to certificates for teaching agriculture and sciences in elementary and high schools of the state.

Agricultural Extension Curriculum—Students planning to enter some field of agricultural extension can best prepare for this by selecting some major field and by arranging for their special extension training in the selection of minor groups or in the selection of electives with the co-operation of the advisers. The major field may be agricultural education or one of the technical divisions in the field of agriculture, such as animal husbandry, dairy husbandry, agronomy, or horticulture. Other majors are also possible. Selection of a major should be determined by the type of extension work which the student plans to follow and by the plans he may have as to a continuation of his study and professional development after he has become engaged in extension work.

Agricultural Engineering Professional Curriculum—Offered jointly with the Institute of Technology. This is a technical engineering course leading to the degree of bachelor of agricultural engineering. The first two years are spent largely in work in the Institute of Technology and the last two in work in the College of Agriculture, Forestry, and Home Economics and the Institute of Technology. High school mathematical preparation required for all engineering curricula is also required here. The Agricultural Engineering Professional Curriculum is designed to train specialists in various types of engineering fundamental to agricultural practices and industries. Through the selection of elective courses emphasis may be placed on one of the following fields: farm structures, soil moisture relations, or farm power and machinery. (For a major in Agricultural Engineering under Technical Agriculture, see the Bulletin of the College of Agriculture, Forestry, and Home Economics.)

Agricultural Engineering Business Administration Curriculum—Offered jointly with the Institute of Technology and the School of Business Administration. This is a technical engineering and business curriculum with emphasis in the field of agriculture. The preliminary requirements are similar to those of the Agricultural Engineering

Professional Curriculum. In addition to the professional work in engineering, a complete sequence of business courses is required together with a sequence of agricultural courses. Students completing this curriculum will receive the degree both of bachelor of agricultural engineering and bachelor of business administration.

Agricultural Business Administration Curriculum—Offered jointly with the School of Business Administration. Designed for those who wish to prepare for some branch of agricultural business, such as marketing, finance, farm real estate, merchandising, etc. More business and economic courses are required than in the Technical Agriculture Curricula, where greater stress is on agricultural subjects and more election is permitted.

Agricultural Journalism Curriculum—Offered jointly with the School of Journalism of the College of Science, Literature, and the Arts. Designed for those who wish to prepare especially for some field of journalism relating to agriculture. The student is offered general courses in technical agriculture, but the major part of his college work is occupied with special preparation for technical journalism. Particular stress is also laid on economic and business courses related to agriculture. In many, if not most, cases students definitely interested in agricultural journalism should register in the freshman year in the School of Journalism in the College of Science, Literature, and the Arts. In any case, students interested in this curriculum should consult both the dean of the College of Agriculture, Forestry, and Home Economics and the director of the School of Journalism, College of Science, Literature, and the Arts.

Rural Education Curriculum—A joint curriculum between the College of Education and the College of Agriculture, Forestry, and Home Economics. Students will register in the College of Education. For university, college, and teachers college students who will spend the first two years largely or entirely in academic or pre-education junior college work and who wish to qualify for rural teaching and supervision.

Five-Year Curricula

Five-Year Curriculum in Agricultural Education leading to the degree of master of education—A joint curriculum between the College of Education and the College of Agriculture, Forestry, and Home Economics. The master of education degree will be granted to students who satisfactorily complete a fifth year of work in Agricultural Education at the graduate level and who meet all of the regulations for the professional degree. For detailed statement, see the College of Education Bulletin.

Five-Year Curriculum in Agricultural Technology leading to the degree of agricultural technologist—This curriculum is set up as a general formula to allow students in any of the fields in agriculture, such as animal or dairy husbandry, agricultural economics, agricultural extension, agronomy, and horticulture to plan special curricula to provide professional training in these special technical fields. While the degree will be considered equivalent to a Master's degree, it is a professional degree rather than a degree for work done toward a research career where the degree of master of science is given. The fifth year is also open to students graduating with the bachelor of science from an undergraduate basis of technical agriculture. Offered to those who plan to engage in occupations in the broad field of agricultural technology and who need an additional year of study (a) to extend their knowledge in their major field; (b) to obtain additional training in other general and special fields of agricultural technology; and (c) to obtain training in other fields such as social science, business, engineering, and the applied sciences.

FORESTRY

The Division of Forestry offers three five-year curricula in professional forestry leading to the master of forestry degree and two four-year technological curricula leading to the bachelor of science degree. On completing the requirements of the first

four years of the various professional curricula, the student will receive the bachelor of science degree, which does not, however, complete the training for professional work in forestry. The professional degree of master of forestry is conferred only upon the completion of an additional year. Field instruction under the five-year curricula is given at the Lake Itasca Forestry and Biological Station the summer following the freshman year. The spring quarter of the senior year is spent in field work at the Cloquet Forest Experiment Station.

Five-Year Professional Curricula

General Forestry Curriculum—Preparation for technical work in forest management on municipal, state, federal, and private forests; for work in state and federal forest experiment stations; for work with soil conservation, extension, and farm forestry organizations.

Range Management Curriculum—Preparation for technical work in public and private forest range management.

Game Management Curriculum—Preparation for technical work in public and private forest and game management. See also under Agriculture, page 24.

Four-Year Technological Curricula

Lumber Merchandising and Construction Curriculum—Preparation for work in various phases of the lumber and building industries.

Wood Technology Curriculum—Preparation for technical and research work in the pulp and paper and other wood-using industries, and in wood preservation.

HOME ECONOMICS

Four-Year Curricula

Curriculum for Dietitians—For women expecting to become hospital dietitians. Students selecting this course should have an aptitude for, and ability in, the physical and biological sciences.

Curriculum for Home Economics Education—Offered jointly with the College of Education for those who wish to teach home economics in the high schools and obtain a teacher's certificate. Students should have a high school record better than average and should have an interest in, and an ability to work with, young people. A high scholastic average is required in college work.

Curriculum for Home Economics in Business—For students planning to enter business fields that are closely related to home economics, such as foods and nutrition, related art, textiles and clothing. Given with the co-operation of the other colleges.

Curriculum for Institution Management—Preparation for management of such institutions as tearooms, cafeterias, dormitories, institutional homes, etc.

Curriculum for General Home Economics—A college course in Home Economics offering a broad general education designed especially for the important function of homemaking.

Home Economics and Nursery School Education—A combination course designed for those who have ability and interest in the two fields. Opportunities for placement are limited.

Curriculum for Preparation for Research in (a) Textiles and Clothing or (b) Foods and Nutrition—An undergraduate preparation for graduate work as a basis for more intense specialization in these fields of home economics research. For those who plan a scientific research career. Students who do not have a high school record or a college freshman record considerably above the average should not attempt this course. Graduate work to at least the Master's degree is assumed.

Five-Year Curriculum

Five-Year Curriculum in Home Economics Education leading to the degree of master of education—A joint curriculum between the College of Education and the College of Agriculture, Forestry, and Home Economics. A five-year program in Home Economics Education will be provided for those who wish to make additional preparation prior to their entrance into teaching and for those who wish to continue their professional work following the completion of the requirements for a Bachelor's degree. The five-year curriculum will qualify a person for high school teaching and for some college positions. The attainment of added training should facilitate professional promotion. For detailed statement, see the College of Education Bulletin.

COLLEGE OF EDUCATION

The College of Education offers many courses of study designed to train students for the different positions in public and private schools and in other educational agencies. The satisfactory completion of a four-year course as outlined in the College of Education Bulletin leads to the bachelor of science degree and to a certificate for school work from the Minnesota State Department of Education. In many cases a five-year program leads to the master of arts or master of education degree. Graduate work in many fields is available.

A student who wishes to teach in some state other than Minnesota may have his program modified to meet the specific requirements of that state.

Some of the courses of study prepare the student for high school teaching in an academic subject, such as English, Latin, German, history, mathematics, and science, or in one of the special subjects such as agriculture, art, business education, home economics, industrial arts, natural science, physical education, health subjects, or music. Some courses of study are outlined not for a one-subject major but for a broad field of specialization, such as natural science, or social studies including history. Other courses of study entitle the graduate to the kindergarten-primary certificate, or to the elementary school or junior high school certificate, with preparation for positions in nursery schools, kindergartens, elementary schools, and junior high schools. There are also courses of study for school librarians, for teachers of subnormal children, for teachers of speech correction, and for those interested in public school health work, public health nursing, nursing education, or recreational leadership.

At the graduate level specialized programs in administration and supervision prepare for positions as superintendents of schools, principals of elementary schools and high schools, supervisors of elementary and high school subjects, critic teachers in teachers colleges and practice schools, and teachers of professional education subjects. Special courses planned for certification in administration and supervision are available. Graduate courses are also offered in educational and vocational guidance, psychological testing, educational psychology, higher education, and many other fields.

Many school systems are now asking that their teachers have five years of university work and a Master's degree. To meet this demand for advanced training there are, in addition to the program leading to the Master's degree in the Graduate School, five-year courses of study offered by the College of Education leading to the master of education degree in physical education for men, in physical education for women, in art education, in music education, and in industrial education.

The undergraduate student should specialize in at least two fields of teaching in which he is most interested and which he finds he will enjoy most. He should, however, also consider the demands of the teaching profession and the probability of securing a position. At the present time the demand in all fields exceeds the supply of trained teachers and this situation is likely to continue throughout the war period. Acceleration

of training is possible in nearly all fields whereby students may complete their work in a shorter period than usual. Students contemplating acceleration of training are urged to consult with their advisers or the college counselor at the time of registration.

The selection of one or two suitable minors to supplement a teaching major is important. Some combinations are more frequently requested than others. A list of the most frequent can be obtained from an adviser or from mimeographed material available in the Bureau of Recommendations at 208 Burton Hall. Students who have majors in broad fields are more easily placed than those with one-subject majors and minors in unrelated subjects. Experience in student activities on the campus is a decided asset in securing a position and such participation is highly recommended to prospective teachers. Academic majors with minors in special subjects such as home economics, music, art, physical education, and library work are in great demand in schools where the first teaching experience must be gained. Further specialization in single fields or subjects for teaching can be taken as graduate work during summer sessions.

For academic majors the student registers for two years in the College of Science, Literature, and the Arts and transfers to the College of Education at the beginning of the junior year. In certain courses of study, as in business education, a number of pre-requisite subjects must be completed during the junior college period. In art education, elementary education, industrial education, kindergarten and primary education, music education, and physical education, the student registers in the College of Education as a freshman. In agriculture and home economics the freshman and sophomore years are taken in the College of Agriculture, Forestry, and Home Economics. The programs in nursing education and public health nursing are based on preliminary work in the School of Nursing.

GENERAL COLLEGE

The General College is a new departure in education. Basically it provides a two-year curriculum of general education leading to the degree of associate in arts. A broad program of courses is available from which the individual student, under guidance, plans his own curriculum. General education aims essentially to produce well-rounded individuals who will be able to meet and understand the variety of common activities and problems encountered in the business of earning a living, as a member of a home and family group, as an individual consciously or unconsciously seeking numerous personal values, and as a citizen of a community, a state, a nation, and a world.

To achieve these purposes, core courses have been set up directed toward individual, home life, social-civic, and vocational orientation. A wide variety of other courses is available from which electives may be chosen by the individual student in terms of his special needs and interests. In addition to study in the orientation areas, students may elect subject-matter fields of interest. Areas from which these may be chosen are biological sciences; general arts; human development; literature, speech, and writing; and the physical sciences.

Emphasis is placed upon contemporary society throughout the teaching, with sufficient study of the past and of trends towards the future to understand the present and its problems. A wide variety of courses is available, including economics; government; history; the biological and physical sciences; literature, speech, and writing; mathematics; psychology; human biology; eugenics; photography; and the arts. The arts include the study of music and the graphic arts.

Vocational orientation offers field trips and special laboratory sections for a small group study of common problems. Individual help, discussion sections, visual education equipment, comprehensive examinations, a writing laboratory, and special work in speech offer the opportunity to every student to make his college work a real and vital part of his living now and in the future.

Combination programs of courses in special fields in other departments together with courses in the General College may be arranged to meet the needs of individual students. A limited number of students in other colleges may be permitted to take work in the General College. The usual provision has been made to accommodate adult auditors.

In response to wartime conditions, the General College has prepared a number of course groupings designed to prepare students for further training of a specialized nature. The combination of general and specific types of courses is proposed to prepare students for both the civilian and military aspects of war service as well as to provide the values which may be secured from the regular General College offerings.

The degree, associate in arts, is granted upon the passing of four comprehensive examinations and the earning of 90 credits. Eligibility for transfer to other colleges is determined by the scope and quality of work done in this college. The evaluation of credits accepted for transfer is in the hands of the college to which transfer is requested.

Provision is made for the counseling and guidance of individual students as this is needed in connection with personal, educational, or vocational problems. A carefully developed testing program aids in finding individual needs, interests, and abilities. The satisfaction of these, through a carefully planned program of courses and extracurricular activities, is worked out with college counselors and program advisers. The counselors and instructors of the General College are available at all times to help students with their many problems and questions, in order that their university study may be made interesting, valuable, and meaningful.

SCHOOL OF NURSING

The School of Nursing offers a five-year combined curriculum leading to the degrees of bachelor of science and graduate in nursing. The first five quarters in this course may be spent in any good university where the required courses are available (see the School of Nursing Bulletin) and are devoted to the study of biological and other sciences, and to additional cultural courses fundamental to nursing. The next two and one-half years are spent in the clinical field of hospital, outpatient, or other community nursing practice. The last three quarters (one academic year) are divided between the clinical field and academic work in a major of the student's choosing.

Students taking this course are prepared not only for bedside nursing but also for administrative, supervising, and teaching positions in schools of nursing and hospitals; or for such public health nursing positions as visiting nursing, school nursing, health teaching, infant welfare, rural and industrial nursing; or for combined positions in secondary schools involving both nursing and teaching.

Certain well-qualified students may, by the proper choice of specific course requirements and by attendance during the Summer Session, complete this curriculum in four and one-quarter calendar years.

The work of present-day nursing demands a comprehensive preparation such as may be secured in the five-year combined course. Graduates of this course are in demand and hold excellent positions in the various representative nursing fields in this country and abroad.

The school offers, also, a three-year curriculum leading to a diploma of graduate in nursing. High school graduates meeting the entrance requirements to the School of Nursing (see page 17) are eligible for this course as are college students who have maintained a C average in their college courses.

College graduates who qualify for admission to the School of Nursing may complete the requirements for a diploma in nursing in thirty months.

The School of Nursing co-operates with the College of Education in offering a program in nursing education for graduate nurses leading to a degree of bachelor of science.

The school provides, in addition, postgraduate courses in communicable disease, medical, surgical, operating room, pediatric, and obstetric nursing. These courses are for the most part twelve months in length, they include clinical experience within the hospital and in other phases of community nursing practice outside the hospital. Accredited School of Nursing graduates who have completed with a C average psychology and sociology, or in lieu thereof one year of satisfactory college work, are eligible for post-graduate courses. They are expected to carry the equivalent of one-half year of related scientific and other academic work during the year. Nurses completing these courses are prepared primarily for combined administrative and teaching head nurse positions.

A ten-week refresher course for graduate inactive nurses is offered by the School of Nursing as a special wartime program.

A six-month course preparing high school graduates for hospital nurses aide positions is offered as a special war course.

The school receives students from affiliating schools for class and clinical experience in such fields as medical, surgical, obstetrical, pediatric, dietary, gynecological, communicable, and outpatient phases of nursing.

For further information regarding all of the above courses see the Bulletin of the School of Nursing. For extension and summer courses see bulletins of the General Extension Division and of the Summer Session, respectively.

For application blanks (including nursing supplement), bulletins, or other information concerning admission, address director of admissions and records, University of Minnesota, Minneapolis 14, Minnesota.

COLLEGE OF PHARMACY

The College of Pharmacy has been on an accelerated basis for the last two years but will de-accelerate and return to the normal four-year course beginning fall quarter 1944.

The College of Pharmacy offers one undergraduate course of four years' duration leading to the degree bachelor of science in pharmacy. This course includes one year of work in certain subjects in the College of Science, Literature, and the Arts, or other colleges of equal standing.

The College of Pharmacy and the School of Business Administration offer an optional combined five-year course in Pharmacy and Business Administration leading to the degrees of bachelor of science in pharmacy and bachelor of business administration. This optional course is open only to those students who register in the College of Pharmacy either with or without advanced standing and who can present evidence of better than average ability. Students who are permitted to register for this course of study must take the professional and business administration courses in the sequences in which they are offered. Due to schedule difficulties, this optional five-year course is suspended for the duration of the war.

Graduate study with major work in pharmaceutical chemistry and pharmacognosy leading to the degrees of master of science and doctor of philosophy, respectively, is offered by the Graduate School. The graduate work is open to those who have received the degree bachelor of science in pharmacy from the four-year course of this or some other college of pharmacy of similar standing. Only those who have shown exceptional scholarship and capacity in the undergraduate course and possess unquestioned ability to carry on independent research will be accepted for advanced work.

COURSE FOR DENTAL HYGIENISTS

The Course for Dental Hygienists is offered by the School of Dentistry. Admission is based upon the completion of a four-year high school course or its equivalent. It offers to young women a two-year university course leading to the degree of graduate dental hygienist.

The subjects included in this course aim to prepare young women for educational and practical dental hygiene work in public schools, hospitals, industrial institutions, and private dental offices. The cultural subjects include English composition, sociology, psychology, and public speaking. Physiology, physiological chemistry, zoology, bacteriology, and elementary anatomy serve as the fundamental background for the specialized courses pertaining to dental hygiene and pathology. Dental prophylaxis, administration of anesthetics, X ray, dental laboratory technic, and assisting at the dental chair are included in the course of training. Instruction in office methods, records, banking, typewriting, and correspondence helps to prepare the dental hygienist for the various duties she performs.

Upon graduation the dental hygienist is required to pass the Minnesota State Board Examination in order to secure a license to practice dental hygiene within the state. Thirty-four other states have similar laws governing the practice of dental hygiene.

CREATIVE ARTS

Courses in the practical arts—painting, drawing, sculpture, architecture, industrial and related arts—as well as their history and theory are given by several different colleges of the University. These may be taken for general educational purposes to broaden the student's background and experience in the cultural fields, as well as for direct vocational preparation in one or more of these arts.

The professional training of architects is provided by various curricula in the School of Architecture. Practical studio courses for the training of creative artists may be had in the departments of Art Education, Drawing and Descriptive Geometry, General College, and the School of Architecture. Curricula for the training of teachers of art, design, and the handicrafts are provided by the Department of Art Education. Practical and theoretical work in the arts of the home—home furnishing, clothing and textiles—is offered by the Department of Home Economics. Curricula for the training of art students in museum and library work are available through the Department of Fine Arts.

RADIO WORK

In the short period of time since November 2, 1920, when a station in Pittsburgh broadcast the Harding-Cox election returns, radio has become one of the world's most powerful forces. This fact lays heavy responsibilities on workers in radio. They must be more than well-trained speakers, writers, producers, or electricians; they must be men and women with sound background in history, economics, literature, music, psychology, science, and the other fields of knowledge that contribute to an understanding of the world and its people. Like members of other professions—education, law, engineering, journalism, medicine—they must be able not only to cope with technical problems, but also to use radio effectively, as a social influence, to use it "in the public interest."

The program of training for radio work at the University of Minnesota has been designed to do two things: to give young men and women sound general background so they may bring to their work a broad knowledge of the world which radio serves; and to give them an introduction to the basic skills and techniques of radio so that their periods of apprenticeship may be shortened. It is offered as an integrated part of a broad educational plan, not in any sense as another of the many narrowly specialized "schools of radio." More specifically, it asks each prospective radio worker to build his radio training

on a broad foundation of courses in the social studies, the natural sciences, literature, the arts, and other fields of knowledge so as to equip himself to deal intelligently with the problems of modern life. A good command of oral and written English is essential.

Radio sequences are devised so that students may parallel them with vocational training in allied fields as a means of preparing themselves for more than one type of work. Students interested in radio should not forget that the opportunities in this field are relatively limited. Consequently, it is wise for them to plan their courses so as to qualify for work in a second field. This will give them a better chance for employment upon graduation. Speech majors, for example, should prepare for both radio and the theater; journalism majors, for both radio writing and newspaper reporting; education majors, for radio and for teaching at either the elementary or secondary school level; engineering majors for radio engineering or communications engineering. Training in shorthand and typewriting will frequently provide women graduates with the initial vocational entrance into radio.

A student may undertake training for radio work at the University of Minnesota by any one of four main avenues (advisers in the several divisions offering radio courses will aid him in planning his program):

1. By a major in the Department of Speech, College of Science, Literature, and the Arts, if he is interested principally in radio announcing, acting and production, radio speech, and the writing of dramatic scripts.
2. By a major in the School of Journalism, College of Science, Literature, and the Arts, if his interest is in the writing and presentation of radio news, radio advertising, radio script and continuity writing, or in radio salesmanship.
3. By a major in the College of Education if his interest is principally in the school use of radio.
4. By a major in the Institute of Technology if his interest is principally in radio engineering.

These groups are not mutually exclusive; often they converge. All offer the student opportunity for selecting a considerable variety of general background courses. Moreover, a student choosing speech-radio as his special field, for example, is advised to elect courses from the journalism-radio offerings; a student electing journalism-radio as his special area normally will have supporting work in speech-radio courses; a student majoring in education may profit from courses in journalism and in speech.

Many of the courses dealing with radio are designed also to give the student with a general or layman's, rather than a professional, interest in radio a broader understanding and appreciation of the problems and social significance of radio broadcasting.

Wide opportunity for practical experience in radio work is available to qualified students through WLB, the University of Minnesota radio station. WLB broadcasts an average of 45 hours each week, using 5000 watts on 770 kilocycles. One entire floor of Eddy Hall is given over to its studios and offices. Extensive line installations make possible remote pickups from many other campus points. WLB's programs include the University of Minnesota convocations, the Minnesota School of the Air for classroom use, similar features for adult listeners, farm programs, much fine music, and many other service features. Altho full-time staff members assume major responsibility for the station's operation, many students work in the control rooms, operate the transmitter, engage in radio writing, production, and acting through the University Radio Guild (a voluntary organization of those interested in gaining radio practice), and otherwise participate in the station's activities.

Laboratory facilities for students in addition to WLB's studios and transmitter include the electrical engineering laboratories in the Institute of Technology; a well-equipped broadcasting studio in the School of Journalism, where radio classes in journalism, speech, and education meet and work; and a radio news laboratory in the

School of Journalism, where students gain professional experience by participating in the editing of WLB's twenty news broadcasts a week.

From time to time, in response to public demand, the General Extension Division offers through evening extension classes and through correspondence study selected courses in the general field of radio. For instance, the General Extension Division offers evening classes in Radio Speech, Radio Drama, and Radio Script Writing. For information on these courses, see the Bulletin of General Extension Classes.

The Correspondence Study Department offers Journalism 68, Radio Writing. For information on this course, see the Bulletin of Correspondence Study Courses.

For catalogs or other information, address Director of Admissions and Records, University of Minnesota, Minneapolis 14, Minnesota.

SPEECH PATHOLOGY

Students interested in becoming speech correctionists in public schools, hospitals, or child guidance clinics will find the course of study outlined in the College of Education Bulletin. After four years of undergraduate study in Speech Pathology, the student receives a bachelor of science degree and a certificate in special education.

Graduate study leading to the degrees of master of science and doctor of philosophy in speech pathology is also offered in the Department of Speech.

Vocationally, this field offers excellent opportunities for professional work. Speech clinicians are always in demand.

Courses Not Open To Freshmen

MEDICAL SCHOOL

The Medical School offers four principal courses: one for physicians, one for nurses, one for public health nurses, and one for medical technologists.

The Medical Course proper leads to the degree of doctor of medicine and the usual career of graduates is the practice of medicine. For the duration of the war these minimum entrance requirements have been reduced to two academic years, including general zoology; genetics; psychology; inorganic, analytical, organic, and physical chemistry; physics; English; and a reading knowledge of German.

Altho three years of college work (two during the war) will constitute the minimum requirement for admission to the Medical School, a physician should have a thoro and broad education. Hence, students in normal times are advised to take four years of college work before beginning the medical course; and, other qualifications being approximately equal, the Admissions Committee will give preference to those applicants who have had the better educational background. The time during these three (or four) years of college work which is not taken up with specifically required subjects should be devoted to a program of studies, carefully selected to serve as a background for a liberal education. (See Medical School Bulletin for details of entrance requirements and for suggestions for elective studies.)

Premedical study may be pursued in any good college. The medical course is three years in length (there are no vacations) and leads, at Minnesota, to the degree of bachelor of medicine. After a further year as intern (that is, resident doctor) in some good hospital, the student is granted the degree of doctor of medicine. He may then engage in practice or undertake graduate work as preparation for the practice of a specialty or for a career in teaching and research.

It will be seen that the complete time of study for a physician which ordinarily is seven or eight years above the high school, has been substantially reduced because of the war. The course is difficult and only competent students should undertake it.

The School of Nursing—See page 30.

Public Health Nursing—Courses in public health nursing are conducted in the Medical School under the direction of the School of Public Health. Graduate nurses who are eligible and seniors in the five-year nursing course may secure the degree of bachelor of science with a major in public health nursing. Graduate courses in public health leading to a Master's degree are also available for qualified public health nurses. Students who are interested should ask the director of admissions and records for application blanks including the nursing supplement and should direct special inquiry to the Director, Public Health Nursing Course, 121 Millard Hall, University of Minnesota, Minneapolis 14, Minnesota.

The Course in Medical Technology is a four-year course and leads to a degree of bachelor of science. The first two years are spent in the College of Science, Literature, and the Arts. At the beginning of the third year the student enrolls for the course in the Medical School and completes all theoretical work. The entire fourth year is spent in a practical rotating laboratory service in the University of Minnesota Hospitals and affiliated laboratories. An additional six months for training in X-ray technique may be elected by the student.

A medical technologist is trained in the performance of the various diagnostic procedures used by physicians, such as chemical and bacteriological determinations, blood studies and tests, basal metabolism, electrocardiography, and the preparation of tissues for microscopic examination. This work requires intelligence and reliability of high order. As a general rule, a student who has excelled in scientific subjects in high school will succeed in medical technology.

The Course in Physical Therapy—A twelve-month course, beginning the first term of the Summer Session, is offered to five-year Arts and Nursing students, graduates in nursing from accredited schools, graduates of an accredited college or university with a Bachelor's degree in physical education for men or women, and graduates of an accredited college or university with a Bachelor's degree in medical technology. A graduate of this course is prepared to carry out techniques, under a physician's directions, applied to the following branches of physical therapy: hydrotherapy, thermotherapy, light therapy, electrotherapy, and mechanotherapy (massage and corrective exercises). Included also is the Kenny technique for the treatment of infantile paralysis. Graduates of this course are eligible to become registered physical therapy technicians.

The Course in Applied Mortuary Science—See the Bulletin of the Course in Applied Mortuary Science. Much of this course is given in the Medical School under the administration of the General Extension Division.

Short courses for physicians are offered throughout the year by the medical faculty and other specialists under the administration of the General Extension Division and the Center for Continuation Study.

Graduate work in the medical sciences, in the various specialties of clinical medicine, and in public health is offered by the Graduate School faculty of the Medical School. See Bulletin of the Graduate School.

SCHOOL OF BUSINESS ADMINISTRATION

The School of Business Administration offers a two-year course leading to the degree of bachelor of business administration. This course requires as a prerequisite the completion of two years of work in the College of Science, Literature, and the Arts, the Institute of Technology, or the College of Agriculture, Forestry, and Home Economics in which certain prebusiness courses are prescribed.

In addition to the general courses in business, several specialized sequences are offered. Among them are courses in Accounting, Advertising, Agricultural Business, Department Store Training, Finance, Foreign Trade, Industrial Administration, Indus-

trial Management, Insurance, Merchandising, Office Management, Personnel Management, Secretarial Training, and Traffic and Transportation. In each of these a sequence of courses has been arranged which enables the student to obtain the professional training essential for entrance into the specialized field. Instruction is directed toward the broader aspects of the business professions rather than detailed drill in various technical processes. The business courses are combined with a sufficient amount of instruction in other fields to afford a well-rounded university education.

Two special sequences in the fields of economics and statistics leading to the degree bachelor of science in economics are offered in the School of Business Administration. This sequence aims to meet a demand for economic analysts and statisticians both in the government service and private industry.

Five-year combined courses in the Institute of Technology and the School of Business Administration are available for students preparing for administrative positions in industrial establishments that require technical training in both engineering and business. A student is enabled to obtain degrees in both engineering and business administration upon satisfactorily completing one of the five-year curricula as approved by the official advisers of the School of Business Administration and the Institute of Technology. These combined courses are available to students in the various curricula in the Institute of Technology.

A five-year combined program in Pharmacy and Business Administration is available for students who are preparing for administrative positions in pharmaceutical or certain types of chemical plants. This course also affords training for those planning to enter a wholesale or retail pharmacy business.

A seven-year combined curriculum in Business Administration and Law was introduced in the fall of 1938. It is the purpose of this program to afford a training for several types of positions which require a knowledge in the fields of both law and business administration. These positions are found in certain types of law practice which involve appearance before governmental administrative boards and commissions and also in administrative positions in corporations which are subject to governmental regulation.

A limited number of positions are available to students in the junior and the senior years to supplement the university training. Students selected for these positions are employed by accounting firms, department stores, financial institutions, or other business concerns. The terms and period of employment are arranged to meet the needs of individual students by the employing firms that are co-operating with the school. Employment under these conditions affords an excellent opportunity for laboratory experience. The positions available have been selected by the faculty with special consideration as to the educational value of the work. University credit is allowed for work which has been successfully carried under proper supervision.

The degree of master of business administration is awarded through the Graduate School to students who have completed certain specified course requirements beyond the Bachelor's degree. Students who have obtained the bachelor of business administration degree here, or in another institution of equal standing, may satisfy these requirements in one year. Students who have obtained a bachelor of arts degree from a liberal arts college will generally find it necessary to spend two years in completing this requirement.

SCHOOL OF DENTISTRY

The School of Dentistry offers two principal courses—a four-year course for dentists and a two-year course for dental hygienists.

The accelerated plan now in force requires attendance four quarters a year, thereby enabling a student to complete the four-year course in Dentistry in three calendar years. The next freshman class will begin work on January 2, 1944 and will graduate in December 1946.

The course in dentistry leads to the degree of doctor of dental surgery and prepares graduates to engage in the practice of dentistry. The minimum requirement for admission to the School of Dentistry is the completion of a four-year high school course and two years of college work, sixty (60) semester or ninety (90) quarter credits. The two years of pre dental work may be taken in the College of Science, Literature, and the Arts at the University of Minnesota or at any accredited university or college.

The pre dental course must include English and the sciences of chemistry, physics, and zoology. All the other subjects are elective, but the student is advised to secure as broad and as cultural an education as possible by selecting courses such as psychology, sociology, history, economics, statistics, and government. Technical drawing is also recommended as valuable training for a prospective dentist.

A broad, cultural education is of such great value to the professional man that the University of Minnesota offers the opportunity for a student to secure both the bachelor of arts and the doctor of dental surgery degrees in seven years. To accomplish this the student completes three years' work with a satisfactory record in the College of Science, Literature, and the Arts, and then enters the School of Dentistry. Upon the completion of the accredited medical science subjects in the first two years of the dental curriculum, the student becomes eligible for the bachelor of arts degree from the College of Science, Literature, and the Arts. Upon the completion of the required curriculum of the School of Dentistry, the student is recommended by the faculty in dentistry for the degree doctor of dental surgery.

After graduation a dentist secures a license to practice by passing the State Board Dental Examination required by the state in which he desires to locate.

Graduate work in dentistry—Graduate work leading to the master of science in dentistry degree is offered under the direction of a joint committee in Dentistry and Medicine in the Graduate School of the University. Candidates for admission must be graduates of an accredited dental school, with at least two years of preliminary college work. Further requirements with reference to training in the basic sciences are explained in the Graduate Medical Bulletin. Completion of the work for a degree will normally require three years of graduate study.

Extension courses—Courses in Crown and Bridge Work, Oral Surgery, Orthodontia, and Prosthetic Dentistry are conducted from time to time by the General Extension Division, for the benefit of dental practitioners.

LAW SCHOOL

The Law School offers courses leading to the degree of bachelor of science in law and the degree of bachelor of laws.

The course for the degree of bachelor of science in law is two years. To be admitted as a candidate for this degree a student must have completed two years (90 quarter, 60 semester credits) of college work, with the requisite honor points (see Admission). The college work is elective. No foreign language is required. The prebusiness course in this University will satisfy the college requirement. The law work may be either the regular first two years of the professional course, or selected law work for those who wish training only for business purposes. The degree of bachelor of science in law is conferred upon those candidates who maintain an average of at least 70 in the work of each of the two years in the Law School. This degree does not qualify for admission to the bar, but students who have completed this course may go on to the bachelor of laws degree upon the conditions stated below.

The course for the degree of bachelor of laws—the professional degree required for practice—requires two additional years of study in the Law School. To be admitted as a candidate for this degree, a student must have completed the college work required

for the degree of bachelor of science in law, *including*, except for students who have a college degree when they begin the study of law, *the subjects specified in the prelaw course* (see the Bulletin of the College of Science, Literature, and the Arts or the Bulletin of the Law School), or substitutes approved by the dean of the Law School, and must also have completed the two years of law work required for the degree of bachelor of science in law with an average of not less than 75 in one of these two years, or of not less than 73 for all the work of these two years combined. The additional two years of study are devoted to advanced courses in law, including practice, pleading, evidence, judicial administration, administrative law, jurisprudence, and legislation. About half of the work of these two years is prescribed; the remainder is elective. Students are permitted to take some work in other departments of the University. Advanced courses in political science and economics are especially recommended. The course is designed to give a broad view of law and legal institutions, and to train the student not only to care for clients' interests, but also for public service in his profession and for public and legislative leadership.

Students who have a bachelor of arts or equivalent degree when they enter the Law School may qualify for the bachelor of laws degree in three years.

The College of Science, Literature, and the Arts and the Law School offer a combined seven-year course in arts and law leading to the degrees of bachelor of arts and bachelor of laws. (See the Bulletin of the College of Science, Literature, and the Arts or the Bulletin of the Law School.)

The School of Business Administration and the Law School offer a combined seven-year course leading to the degrees of bachelor of business administration and bachelor of laws. (See the Bulletin of the School of Business Administration or the Bulletin of the Law School.)

The Law School affords an opportunity for a course leading to the degree of master of laws, under the direction of the Graduate School. Candidates must have completed two years of college work and must have secured the degree of bachelor of laws from a school which is a member of the Association of American Law Schools.

DIVISION OF LIBRARY INSTRUCTION

The Division of Library Instruction offers a full year of professional education in librarianship for college graduates and properly qualified students of senior standing, leading to the degree of bachelor of science. Students electing work in the division are registered in the College of Science, Literature, and the Arts, the College of Education, or the University College, and certain courses are accepted for credit in the School of Business Administration and the College of Agriculture, Forestry, and Home Economics. The division aims to prepare students for careers in public, college, governmental, and special libraries, and its curriculum is arranged to meet the requirements for certification of school librarians. A special course in hospital librarianship, requiring a full quarter of resident study and six weeks of additional practice or internship in hospital libraries, is offered in the spring quarter to students with special training and experience. The requirements for all library instruction courses are outlined in the special circular of the division.

UNIVERSITY COLLEGE

Any undergraduate student who is unable to find in any of the curricula of the colleges a program of study suited to his special intellectual interests or professional aims may, with the advice and approval of the University College Committee, arrange a course of study best adapted to his needs. Any course offered in the University may be drawn

upon in making up such a program. The satisfactory completion of an approved curriculum entitles the student to the degree of bachelor of arts or bachelor of science.

Students who believe their needs are best served by registration in the University College should apply at the University College office in the Physics Building.

GRADUATE SCHOOL

The Graduate School gathers into a single organization and unites for the purpose of administration all the activities of the University in all its schools and colleges in so far as they relate to advanced instruction offered for the second or higher degrees, namely, master of arts, master of science, master of business administration, electrical engineer, mechanical engineer, civil engineer, chemical engineer, and doctor of philosophy. The privileges of this school are in general open to all who have received Bachelor's degrees from accredited colleges and universities, based on courses substantially equivalent to those at this University.

Graduate work in medicine is offered jointly through the Medical School and the Mayo Foundation for Medical Education and Research (see Graduate Medical Bulletin). The degrees of bachelor of science (or equivalent) and doctor of medicine and one year of intern service in an acceptable hospital are prerequisites for admission to the clinical departments. Properly qualified college graduates may be admitted to the medical laboratory departments (Anatomy, Physiology, Bacteriology, Biophysics, Pharmacology, and Pathology) without the medical degree and internship. A number of fellowships and scholarships are provided for selected students undertaking graduate courses in chosen specialties in medicine. These courses cover a period of three years and lead to the degree of master of science or doctor of philosophy in the various fields.

Graduate work in certain problems related to dentistry is offered to qualified students in the fundamental or laboratory departments mentioned above. Clinical material and opportunities to supplement this research are available from the Dental Clinic, the Medical Dispensary, and the University of Minnesota Hospitals.

A graduate student may, upon the approval of his graduate adviser, petition the dean of the Graduate School to have transferred to his graduate record not more than six quarter credits under Plan A or nine quarter credits under Plan B in courses numbered 100 and above offered by the Extension Division of the University of Minnesota in the Twin City area, and taught by regularly approved members of the graduate faculty. Petition to transfer is limited to extension credits earned since September, 1943. Such transfers of extension credits will not give residence credit.

Inquiries concerning graduate work should be addressed to the dean of the Graduate School, University of Minnesota, Minneapolis 14, Minnesota.

Other Study Opportunities of the University

UNIVERSITY SUMMER SESSION

The University Summer Session is organized for two terms, one of six weeks and one of five weeks, from June to September, under the authority of the Board of Regents, as a regular part of the University. Courses in the Colleges of Science, Literature, and the Arts, Agriculture, Forestry, and Home Economics, and Education, the Institute of Technology, the Schools of Medicine, Nursing, Dentistry, and Business Administration, the Institute of Child Welfare, the Division of Library Instruction, and the Departments of Physical Education are offered. In most of the colleges and divisions special attention is given to graduate work. These courses are, in the main, regular courses, the same as are

offered during the academic year, but wherever necessary, are adapted to meet the needs of students in the Summer Session. Address your inquiries to the director of the Summer Session, 406 Administration Building, University of Minnesota, Minneapolis 14, Minnesota.

LAKE ITASCA FORESTRY AND BIOLOGICAL STATION

The Forestry and Biological Station at Itasca Park offers elementary and advanced courses in the fields of biology by various departments in the College of Agriculture, Forestry, and Home Economics, and the College of Science, Literature, and the Arts during the second term of the Summer Session. This Biological Station session will not be offered in 1944 and will be discontinued until further notice and probably for the duration of the war.

GENERAL EXTENSION DIVISION

The General Extension Division conducts late afternoon and evening extension classes in the Twin Cities, Duluth, and in some other communities for those who are employed during the usual working hours and are, therefore, not able to attend the regular day classes of the University. It also conducts correspondence study courses which are available to anyone no matter where he may live. These classes and correspondence study courses cover a wide range of subjects, representing the offerings of the various colleges, schools, and divisions of the University.

Instruction, by both class and correspondence study methods, is also open to, and employed by, regularly matriculated students as a means of earning credits toward degrees. Extension classes conducted in Minneapolis, St. Paul, or Duluth are classed as residence work; credits earned in them satisfy residence as well as credit requirements. Credits earned by correspondence study do not classify as residence, but are accepted for a part of the credit requirements for most undergraduate degrees. (The Institute of Technology has special requirements which students must follow.) Students, therefore, who are temporarily out of residence (except dropped students) are privileged to register for either form of instruction.

The General Extension Division as a part of its services operates the Center for Continuation Study, a small, self-contained residence college unit in which are conducted short courses (mostly on a postgraduate level) for persons in professional fields.

The General Extension Division also provides a number of other educational facilities, such as: lectures by faculty members and others, lyceum courses, concerts and entertainments; it lends lantern slides and films for both entertainment and instruction; it maintains a Municipal Reference Bureau; it holds annual short courses in addition to those at the Center in a number of subjects including a year course for embalmers; it gives advice to schools and other organizations on the selection and production of plays; and it administers the university radio broadcasting station for educational purposes.

For further information, and for bulletins of extension classes, correspondence study, lecture courses, and various community services, address the General Extension Division, 402 Administration Building, University of Minnesota, Minneapolis 14, Minnesota.

The work of the Agricultural Extension Division is entirely separate from the work of the General Extension Division. See Organization of the University, page 4.

WAR TRAINING COURSES

A considerable number of special war training programs intended primarily for women are now offered in several colleges of the University. For most of these programs the usual prerequisites are waived and applicants are admitted as special students (not as candidates for degrees). The time requirements of the programs vary, but in general they are planned for rapid training for emergency service. The School of Busi-

ness Administration offers special war courses to train for positions in industrial production, in industrial relations and personnel departments, in accounting, and in office management and secretarial work. In the College of Science, Literature, and the Arts, special war courses are available for the training of social service aides, journalists, statistical clerks, and workers in radio, electronics, meteorology, X-ray analysis, and similar fields. The School of Nursing is offering a special war training course for hospital nurses aides. Numerous other courses are being planned. Requests for information about such courses, admission, tuition, fees, and other matters should be addressed to the particular college concerned or to the director of admission and records.

MILITARY SCIENCE AND TACTICS

Courses in Military Science and Tactics as given in the Reserve Officers' Training Corps are normally divided into two sections: the Basic Course of two years (normally the freshman and sophomore years) which is open as an elective subject to any physically qualified male student who is a United States citizen, and the Advanced Course of two years which is open to selected applicants who have completed the Basic Course. At the completion of the Advanced Course, the student, if recommended by the professor of military science and tactics and the president of the University, receives a commission in the Officer's Reserve Corps.

For the duration of the war no Advanced Course training will be given. The Basic Course offers two years of general military training designed to give the student a background which will be of value to him in any branch of the service when inducted into the Army. The work not only will make the individual a more valuable soldier but will benefit him individually. While neither commission nor noncommissioned rating can be earned through the R.O.T.C. at present, there have been many cases of men who have been able to advance rapidly in the Army because of the training gained through the R.O.T.C.

The course consists of two hours of lecture or range work and one hour of drill per week, for which one credit per quarter is given. These credits may be counted towards any degree offered by the University. Students are loaned a complete uniform (including overcoat) without charge during their period of enrollment. All students are required to take one credit per quarter (three hours per week) of physical education or swimming. This credit, also, may be counted towards a degree in most colleges.

NAVAL SCIENCE AND TACTICS

The Naval Reserve Officers' Training Corps provides a four-year (academic) course for selected, physically qualified male students. The selections are made at the end of the first two terms from students enlisted in the Navy College Training Program. A student who completes this course satisfactorily is eligible for a commission as ensign, United States Naval Reserve, provided he is so recommended to the Bureau of Personnel by the professor of naval science and tactics and passes the prescribed physical examination. Upon reporting on board ship an N.R.O.T.C. graduate may make application for a regular commission, the same as held by graduates of the U. S. Naval Academy at Annapolis, Maryland. The attainment of this commission requires that the applicant complete twelve consecutive months of active duty, be less than twenty-six years of age on June 30 of the year of the application, and be recommended by his commanding officer.

Normally cruises in naval vessels are held during the summer months of each year. As a prerequisite to a commission, a cruise is required of all students upon the completion of the third year of the course unless waived by the Bureau of Personnel. For the duration of the war this prerequisite has been waived.

Presently enrolled N.R.O.T.C. students will continue their present curricula and will receive the same instruction as heretofore. However, each student will be required to accelerate his schedule by attendance at summer school.

Newly enrolled N.R.O.T.C. students, selected from the Navy College Training Program (V-12), will pursue curricula prescribed by the University for their respective degrees and in addition will be required to take the following courses under the Department of Naval Science and Tactics:

Navigation and Nautical Astronomy	Tactics and Aviation
Seamanship	Communications
Ordnance and Gunnery	Damage Control and Engineering
Naval Administration and Law	

The University will determine whether or not credit toward a degree shall be given for the completion of the courses in the various curricula.

N.R.O.T.C. students on active duty, housed and messed on the campus, receive the same pay and allowances, medical services, etc., as all other apprentice seamen; have the cost of their education defrayed by the Navy Department and are under naval discipline. N.R.O.T.C. students are uniformed as heretofore.

Regulations Governing Granting of Degrees

The Board of Regents will confer the degree appropriate to the course pursued under the following conditions:

1. **Curriculum requirements**—Certification by the recorder of the completion of all requirements of the course of study as outlined in the college announcement, or its equivalent as determined by the faculty of the college offering the course.

2. **Recommendation of the faculty.**

3. **Residence requirement**—The student must earn at least one year's credit in residence in this University. If the term of residence is only one year, that year must be the senior year; and in any case he must spend two quarters of the senior year in residence. This last requirement may be waived under such rules as may be established by each college for such exemptions. In addition, special residence requirements must be met in several of the schools and colleges. See individual school and college announcements.

4. **Payment or satisfactory arrangement of all financial obligations due the University.**

5. **Attendance at commencement**—A candidate for a degree is required to be present at the commencement exercises at which his degree is conferred provided the candidate's work is completed at the end of a quarter when such exercises are held.

A student who fails to attend shall not receive his diploma until the expiration of one year, unless in the meantime he attends commencement exercises or unless he is excused from such attendance by the dean of the college and the president of the University.

EXPENSES

Whether his expenses are met partly by his parents or on the basis of his own earnings, every student will want to know his probable expenses while attending the University. Expenses vary greatly, depending on the type of course taken and the needs and tastes of the students. The following information can be presented only in averages and generalities. In planning his budget, each student should adapt the following information to his own situation.

ESTIMATED AVERAGE EXPENSES FOR A YEAR AT THE UNIVERSITY OF MINNESOTA

	S.L.A., Ag., F., & H.E., Education, General, P.H., P.H.N.	Bus. Adm., I. of T., Grad.	Law, Med. T., Phys., Ther., Library, X-ray Tech.	Dent.	Dent. Hyg.	Med.	Phar- macy	Nurs- ing
Tuition	\$ 75.00	\$ 96.00	\$126.00	\$195.00	\$ 81.00	\$231.00	\$111.00	\$ 90.00
Incidental fee	27.00	27.00††	27.00	27.00	27.00	27.00	27.00	9.00
Matriculation deposit..	10.00	10.00‡	10.00	10.00	10.00	10.00	10.00	10.00
Course fees	6.00	6.00	6.00	3.00	9.00	6.00	6.00	8.00†††
Laundry	45.00	45.00	45.00	45.00	45.00	45.00	45.00	15.00
Room rent	125.00	125.00	125.00	125.00	125.00	125.00	125.00	42.00
Board	315.00	315.00	315.00	315.00	315.00	315.00	315.00	105.00
Books and instruments	45.00	45.00††	45.00†††	218.00*	50.00†	220.00‡	45.00	45.00
Total	\$648.00	\$669.00	\$699.00	\$938.00	\$662.00	\$979.00	\$684.00	\$324.00

* Of this amount \$170 is for instruments.

† Of this amount \$18 is for instruments.

‡ Of this amount \$175 is for a microscope.

†† Institute of Technology; incidental fee \$28.20, books \$60.

††† Books for Law School, \$45.

†††† Transportation fee \$8.

‡ Matriculation deposit for the Graduate School is \$3.

‡ This is the tuition charge for a resident of the state of Minnesota. For additional charges for nonresident tuition see nonresident fees, page 54.

Detailed information regarding fees and refunds will be found on pages 54-57.

Of the items of expense shown in the table the incidental, matriculation, course, and laboratory fees, and tuition, resident or nonresident fees, for each college are established fees and apply to all students of that college. One third of the total tuition, incidental, course, and laboratory fees is payable in advance each quarter and must be paid promptly to avoid penalties. These payments are due in September, December, and March—the final dates for payment will be found in the University Calendar, pages 6-7.

As indicated in the table, the actual expense of books and instruments will depend upon the course of study. It will be modified somewhat by the number of used texts and instruments of which the student avails himself and the economy he exercises in the purchase of supplies. The University maintains bookstores that enable a student to purchase all suitable materials required by his courses at a minimum cost. See page 52.

All above expenses are comparatively fixed and unavoidable; the real difference in the costs of a year at the University are to be found in the amounts expended for living. Living expenses include maintenance, laundry, clothes, recreation, and other incidentals. Some of these are not included in the above table because they are determined entirely by the individual's tastes and interests and the amount of his resources.

Clothing for campus wear ranges from the most simple to the exclusive. The general tendency of the college student body is to dress in a comfortable and practical fashion.

The actual amount of the laundry item depends upon the habits of dress. Many students who come from outside the cities mail their laundry home in special laundry boxes for parcel post.

Recreation costs can scarcely be estimated since they are limited only by a student's interests, free time, and spending money. Such costs may be very small and still yield desirable recreation benefits. The University of Minnesota has developed a broad program of cultural and recreational functions on the campus intended for all and in which all may share. These are described on page 47.

Other incidental expenses should be anticipated. Students living away from the campus must provide transportation; haircuts are an item; and each letter mailed requires a postage stamp.

For students who do not live at home or with relatives, the major expense while attending the University will be for room and board; and here there is considerable variation. Out-of-town students live in university dormitories, co-operative cottages, sorority or fraternity houses, a small number in apartments, and the majority in rooming houses near the campus. A few rent rooms with housekeeping privileges and prepare their own meals. At present, rooming house rentals for double rooms range from \$8 to \$16 per month for each student while single rooms, somewhat more expensive, are from \$10 to \$25 per month. Students should select and will benefit by selecting rooms that have been inspected and approved by the University. The director of student housing will assist any student in finding suitable quarters.

Those students who live in rooming houses usually arrange for their board elsewhere. Many eat their meals at university cafeterias, others at boarding houses, co-operative clubs, tearooms, restaurants, or lunchrooms near the campus. Twin City students frequently carry bag lunches and for these a special lunchroom with fountain service has been provided in Coffman Memorial Union. Obviously, the choice and amount of food as well as the selection of eating places will determine the cost of board.

Help with personal finance problems may be obtained at the Bureau of Student Loans and Scholarship.

Thus it will be seen that the expenditures made during a year by one student may amount to several times those of another student. Of primary importance is the need for every prospective student to estimate his own expenses and resources as closely as he can anticipate them and prepare a budget for the school year.

UNIVERSITY SERVICES TO STUDENTS

The University of Minnesota has become one of the largest universities of the nation. Its growth has been attended by more than the expansion of campus, buildings, equipment, courses, and degrees. The cultural and instructional facilities and activities that supplement classroom study have more than kept pace. Practical services to meet the complexities of a large community have been established. The individual attention important to a college student's welfare and progress is carried on by specialized aids and services open to all. The following pages will describe briefly these different services to students.

PERSONNEL AIDS

Students who enroll in the University of Minnesota are confronted with many problems very different in kind from the ones which they faced in high school. These problems are not usually apparent to the student until he is suddenly face to face with them. The University of Minnesota has developed a program of guidance and personnel work to assist those students who are not able to solve all of their personal difficulties unaided. This section of the bulletin is devoted to an explanation of the types of assistance available to students.

In making adjustments to college life many students desire or need assistance with regard to finances, study habits, choice of a vocation, selection of subjects, health and social adjustments. It is obvious that one person may have several of these kinds of problems at the same time and that one kind of problem, such as health, may be the cause of the others. Students who wish counsel on different personal problems or need direction to the proper service should go to the office of the dean of students, 213 Administration Building, or to the Student Counseling Bureau, 101 Eddy Hall.

A university education requires that large sums of money be invested both by the state and the individual privileged to attend such an institution. Since approximately one half of the students at the University of Minnesota earn all or part of the costs of their education, the services established for their financial aid are described at length on page 49.

Academic or scholastic problems are those associated with a student's efforts to achieve success in the course of study for which he has registered. Some students do not have the proper type or amount of abilities to meet the demand made upon them. Others fail to make full use of their abilities. Still others could be successful in some colleges of the University but not in the one in which they enroll. Poor health, lack of money, and all the other problems mentioned may contribute to academic failure or achievement below ability. College deans, department heads, instructors, faculty counselors, college counselors, and the staff members of the Student Counseling Bureau are sources of aid in regard to academic problems.

Most students seek to prepare themselves for their permanent occupation in life. Many also seek additional experience in the hope that they will find avocational or hobby activities. In some instances these later become vocational. The University provides many types of professional and semiprofessional training. Making a good choice from among these numerous offerings is not an easy task. Studies show that the university freshman is as likely to make an incorrect choice as a correct one. The wrong choice often results in academic failure for university men and women who would be successful and happy in some other department or college of the University. The majority of students need help with their vocational choices soon after they begin their university career. Sources of help are numerous. Deans, heads of departments, and instructors can give useful information about their fields of specialization. Orientation courses in the various

colleges aid students to survey and explore educational offerings of the University. The Student Counseling Bureau helps students to analyze individual interests, aptitudes, and abilities. Professional counselors and faculty advisers hold conferences with students about their vocational problems.

Social adjustments present genuine difficulties to a number of students. Much of the value of education lies in learning how to live with others, to understand and enjoy social relationships. The student who fears association with other individuals or groups and therefore avoids them, may be in need of help in making an adjustment which will allow normal social intercourse. The University of Minnesota affords many avenues for better social adjustment in its student personnel work program. These sources of help include the staff of the Student Activities Bureau in the office of the dean of students, the social program of the Coffman Memorial Union, Young Men's and Young Women's Christian associations, fraternities and sororities, religious organizations, and various counselors who aid with individual social problems of students.

Students working under emotional strains cannot ordinarily do effective work in their classroom work. Emotional problems arise from many different circumstances. For example, most young men and women entering the University face a readjustment in those family relationships which have been established through childhood and adolescence. This frequently results in confusion to the student and unless properly met may give rise to serious problems. Counselors and other specialists are prepared to help him through this and other periods of emotional stress which he may meet.

State universities, by their very nature, must be nonsectarian. Pastors and other workers from all major religious creeds are found in the University of Minnesota community and an appreciable proportion of the total student body is active in religious organizations. The adult workers with student religious organizations on the campus have affiliated to form a University Religious Council. Sometimes a student reared in a strict religious discipline experiences confusion when introduced to ideas which seem at variance with the beliefs he holds. Through the University Religious Council or through other university counselors, these students or others are guided to the persons who can help them to solve general religious problems.

Adviser to foreign students—The University extends an especially cordial welcome to those students who come to us from foreign countries. Many nations are now represented in our student body and the University looks forward to even greater extension of its educational influences. Special advisory services for foreign students are available in the office of the dean of students and are the responsibility of the adviser to foreign students. Students may consult this special adviser in 101 Eddy Hall with regard to finances, living conditions, visas, extension of leaves, and problems which arise in connection with courses of study.

SPEECH CLINIC

Students desiring help in the correction of speech deviations should register in the Speech Clinic, located in 411 Folwell Hall. Stuttering, sound substitutions, lispings, foreign accent, voice deviations, deafened speech, and oral inaccuracy are the various types of defects corrected by speech clinicians. Because speech defects are often a handicap to successful college life and also in some vocations, students are invited to seek clinical aid upon entrance to the University. A small fee is charged for these services. Left-handed students whose writing is awkward or lacking in correct slant may receive writing lessons in the clinic.

STUDENTS' HEALTH SERVICE

The Students' Health Service has been established for the purpose of improving and safeguarding the health of students in the University. Since both physical and mental health are necessary for successful achievement throughout life, the University provides services to aid students in maintaining optimum health and to prevent the academic and economic loss due to indisposition and illness.

Through the Students' Health Service the University makes available to students medical care, medical examinations, and health consultations. General service is provided free of charge, but for services which are specialized and individual in character, such as dentistry, X ray, board and laundry in the student hospital, outpatient calls, minor surgery, etc., special fees are charged. No student, however, will be denied service because of inability to pay these fees. Major surgical operations or prolonged medical care ordinarily are secured through private physicians selected by the students or their families, but, if necessary, operations may be arranged for through the Students' Health Service upon the established basis.

On the Main campus the offices of the Health Service and the students' hospital and dispensary are located in the Health Service building. On the University Farm campus the hospital and dispensary also are located in a special Health Service building. The services of the hospital and dispensary are available at all hours of the day and night. Physicians of the Health Service are in attendance daily. The telephone call for the Health Service on the Main campus is Main 8551; for the one on the University Farm campus, Nestor 4616.

The facilities of the dispensary, medical and dental, are such that a large number of students can be given attention in a day. The normal capacity of the two hospitals is one hundred beds. In emergencies, this capacity can be increased. Ample provisions are made for the isolation of communicable diseases.

CULTURAL AND RECREATIONAL FACILITIES

University Library—There is a total of approximately 1,250,000 volumes in the various units of the University Library. The Library Building on the Mall of the Main campus houses a collection of about a million volumes available for use. In addition there are more than 200,000 volumes in the Law Library, the Agricultural Library on the Agricultural campus, in the branch libraries of Chemistry, Engineering, Mines and Metallurgy, of the Institute of Technology, the Geology library, the University High School, and the smaller work collections in many important departmental offices where texts specifically applying to their work have been placed for greater convenience. The library is open each day that the University is in session, from 8:00 in the morning until 10:00 at night.

University Gallery—The gallery is located on the third and fourth floors of Northrop Auditorium where each month new and varied exhibitions are presented for students as well as for the general public.

The University's permanent collection of art works are shown in classrooms, offices, and corridors on the campus.

A picture rental service of framed color reproductions is maintained by the gallery for students to aid in brightening their living quarters.

On the third floor of Coffman Memorial Union is an exhibition room where students install exhibitions, and where, at specified hours, a program of recorded music may be enjoyed.

Music—The University is proud to be the home of the Minneapolis Symphony Orchestra of which Mr. Dimitri Mitropoulos is the present conductor. Regular concerts

are held throughout the college year. The office of the Symphony Orchestra is in Room 110 Northrop Memorial Auditorium.

In addition to the Symphony, the University regularly brings to the campus well-known artists for independent concerts including a regular series, known as the University Artists Course.

As a division of the Department of Music, the University has a large student band with both concert and marching divisions. These units are composed of students with either a professional or recreational interest in band membership. Both units appear publicly at numerous university events throughout the college year. The University Band office is in Room 12 Northrop Memorial Auditorium.

The Department of Music has organized and directs a student symphony orchestra for those students interested in orchestral experience. The Student Symphony office is in Room 107 Music Building.

The Department of Music also maintains a large mixed chorus which gives public performances of chosen operettas each year. The more proficient sections of the chorus present additional short programs at frequent intervals. The office of the University Chorus is in Room 211 Music Building.

Theater—The University Theater is operated through the Department of Speech. Participation is open to all students interested in dramatics. Each school year a number of selected stage plays are presented. The University Theater office is in Room 10 Music Building, the ticket office in 110 Music Building.

At weekly intervals throughout the college year the best visual information on current events is presented by the University Newsreel Theater in the Ballroom, Coffman Memorial Union.

Museums—One of the finest collections of animal and plant life of the Northwest is now offered to the public in the Minnesota Museum of Natural History building located at the corner of 17th and University Avenues Southeast.

Under the direction of the respective departments numerous displays and collections are available for examination by both the public and students. These collections include rare books in the University Library, and displays of scientific and technical interest located in various departments.

Physical education, athletics, and sports—A wide program of sports and dance for women students has its headquarters in the Norris Gymnasium for Women. The program is based upon an activity guidance plan in which each woman student is helped to plan her own program in terms of her interest, needs, and health status. The facilities include three gymnasiums, two swimming pools, large indoor sports room, and outdoor playing fields, as well as the university 18-hole golf course and tennis courts. In addition to the facilities for activities, Norris Gymnasium has a "siesta room" furnished with beds where students may relax and rest. A student organization, the Women's Athletic Association, is sponsored by the department. It not only carries on a large intramural program, but also affords women students an opportunity for service and leadership. The facilities and equipment are also available for use by those students not enrolled in physical education. Expert leadership for voluntary participation is provided as well as class instruction.

An even more extensive plan of physical education and athletics is available for men students. In addition to the regular varsity sports scheduled each year, a broad program of intramural athletics is carried on. Cooke Hall, the Memorial Stadium, and the Field House are occupied by these activities. Besides the several gymnasiums there are two swimming pools, numerous handball and squash courts, as well as the large indoor playing space of the Field House. The outdoor playing fields, the 18-hole university golf course, and tennis courts are under the direction of this department. Competent varsity coaches, intramural directors, and physical education instructors make up the staff of the department.

General social program—The center of much of the student social program is in the Coffman Memorial Union where an active and varied social program under the direction of a full-time social consultant is always in progress. The Union building has numerous meeting rooms for student groups, general lounges, two ballrooms, billiard and pool tables, as well as a 16-lane bowling alley. Groups assembling for Red Cross work and other defense activities meet in this building. The Agricultural Union, a branch of the Minnesota Union located on the Agricultural campus, offers similar activities for students on that campus.

It has been the policy of the University to encourage the organization of student groups in all departments and colleges. At the present time over two hundred student organizations exist and carry on a professional or social program on the campus. All student groups are under the general supervision of the office of the dean of students both as to program and finance. In each instance some interested faculty member serves as an adviser to the group and its officers. Information regarding these student organizations may be secured from the Student Activities Bureau in the office of the dean of students, 213 Administration Building.

FINANCIAL AIDS

Each year a number of high school graduates, as well as students already enrolled for their college work, find it necessary to have financial assistance if they are to continue their education. This assistance may be obtained by borrowing, by winning scholarships or prizes, or by securing part-time employment. In this section will be found a brief description of the services developed by the University for the aid of such students.

Student employment—Any student who wishes to earn money to help him finance his educational program should report to Room 17, Administration Building, where the Employment Bureau maintains a file of available part-time and full-time jobs on the University campus and in the Twin Cities. All students must apply in person before being considered for any vacancy. Upon arrival at the University, the student should report to the Employment Bureau to file his application as to his need, work experience, preference in work, course of training selected, class schedule for other items, and other related information. In order to remain active these applications must, at all times, be kept up to date with such necessary information as post-office box, local address, and class schedule.

School of Nursing students who are members of the United States Cadet Nurse Corps may not accept outside employment.

Work opportunities at the present time are extremely varied and students have an excellent chance of finding jobs which will interest them and provide them with valuable vocational experience which may be helpful in seeking permanent employment after finishing their university training.

Student jobs fall into eight general classifications:

1. Dining room help—cashiers, houseboys, counter workers, waiters, busboys
2. Kitchen help—dishwashers, salad girls, general helpers
3. Custodial—maids, caretakers, nurse maids, maintenance workers
4. Office and clerical—typists, library workers, cashiers, file clerks
5. Sales—clerks and seasonal helpers
6. Research—laboratory work involving special techniques and aptitudes
7. Miscellaneous skilled work—jobs requiring special abilities and paying high rates—musicians, skilled artisans, supervisors
8. Odd jobs—jobs not easily classified, such as attendants, messengers, truck drivers.

The job any individual student may secure will depend on these factors: the number and kind of jobs available; what he can do and how well; his class schedule; his personal characteristics; and his energy and sincerity of effort in seeking and holding employment.

From the beginning of his first job, his record as an employee will have important effects on his progress, his earnings, and himself, and will, in all probability, be an influence for or against him when he is applying for permanent work after he leaves school.

The University employs many students in all these types of work and throughout its many offices. In many cases, this leads to permanent employment on the campus or in related government work.

Upon graduation, students often wish to make use of their work ratings from the University when applying for full-time positions. Many employers make it a practice to call the Employment Bureau for records of students who have earned their way through college because they have found that, regardless of the particular experience involved, the work habits thus created are transferable to their new positions.

Many students enjoy working for their board and room on a part-time basis because it affords them an attractive living situation together with practical experience. All such work is done in the homes of faculty or of nearby residents where living conditions have been investigated and approved. This work usually requires one hour of work for each meal and one hour a day for a room or a total of four hours per day for complete maintenance.

Not all jobs are continuous; many students maintain themselves by various employment until a suitable permanent association can be made. It is indeed a fortunate circumstance when a new student in his first year succeeds in affiliating with an employer who will provide work for him during all of his college attendance. If the job is in line with his major interest, and allows him to progress, he will have found the ideal in jobs for self-supporting students. Next to this, his best hope is advancement to different jobs of greater difficulty and increased compensation as his training and experience increase.

Student rates of pay vary from forty to fifty cents per hour, tho a student with some specialized ability may command much more. It has been estimated, when considering all students at the University of Minnesota who are contributing part or the whole of their college expenses, that the average amount earned per student is twenty-five dollars a month. "Self-help" students, in general, work from five to thirty hours a week; none without exceptional ability and vitality can do more while carrying a normal or near normal course of study.

Individuals differ widely in their capacities for carrying outside work while they attend school. It is generally conceded that first year students should not attempt to carry a heavy program of outside work since they will be busy with a new type of class work and will need time for social adjustment. Until he knows his own limitations, or, if at any time he finds himself in difficulty, the student should rely on the staffs of the Employment Bureau, Student Counseling Bureau, and the office of the dean of students to help him arrange a program of work and study that will avoid the dangers or correct the evils of bad planning and overreaching.

Student loans—Loans have a definite place in the budget of a self-supporting student. A supplemental loan is always to be preferred to an overload of outside work with its threat to good health and scholastic achievement. The University of Minnesota has numerous loan funds. They are restricted in their distribution to individuals meeting certain requirements. A loan usually cannot be obtained before two quarters of attendance at the University, during which time the student will have the opportunity to demonstrate his ability and integrity. The only security for the loans made to students is the character of the applicant and his ability to do college work. Except for students in Medicine and Dentistry, \$200 is the maximum that can be borrowed in any one school year. Loans made to students carry a low rate of interest and become due the date that the student graduates or withdraws from college. Application for loans may be made to the Bureau

of Student Loans and Scholarships, 207 Eddy Hall, a department under the office of the dean of students.

Merit awards for students—Merit awards giving financial assistance for the undergraduate comprise scholarships and prizes which are usually cash awards allowed in recognition of outstanding scholastic achievement or ability. Each donor of a scholarship fund or a merit award has fixed certain requirements that a student must meet in order to be selected. Some require application, others are granted without application. There are very few scholarships available to beginning freshmen in the University and the majority are restricted to students in the junior and senior years. In addition to cash prizes there are a number of trophies and medals awarded each year to the winners in competitions or in recognition of some unusual achievement. Application for merit awards may be made to the offices of the deans of the colleges and the office of the dean of students.

Assistantships and fellowships—A number of assistantships and fellowships are provided for selected graduate students in the different departments. For information, inquiry may be made to the dean of the Graduate School or the dean of the college concerned.

Special financial aids—Under state law, "Any resident who has graduated from the School for the Blind upon compliance with all other requirements shall be entitled to pursue any course of study in the State University without expense for tuition." The Board of Regents of the University has in addition authorized the admission without tuition of blind students who are residents of the states of Minnesota or North Dakota for instruction in courses which they are qualified to receive. Such students, however, are required to pay incidental and special course fees in the same way as other students.

"Any blind person who is, and for five years immediately preceding and making of his application for aid under this act has been a resident of this state, and who is a regularly enrolled student pursuing any course of study, profession, art, or science in any University, College, or Conservatory of Music approved by the Board of Directors of the Minnesota School for the Blind and in the discretion and under the direction of said board, may receive a sum or sums of money not exceeding \$300 in any one year for the purpose of defraying his necessary expenses, including those of a reader, while in attendance upon such University, College, or Conservatory, such expenditures to be made from the appropriations for the current expenses of the Minnesota School for the Blind, provided that not more than ten such blind persons shall receive such aid in any one year." Applications should be filed with the director of the Minnesota School for the Blind, Faribault, Minnesota.

Certain funds are available for the rehabilitation of disabled persons through the State Department of Education, Division of Vocational Rehabilitation. Application for aid should be submitted to the Division of Vocational Rehabilitation, State Office Building, St. Paul 1, Minnesota.

HOUSING FACILITIES

A common problem to all students who leave home to attend college is that of living arrangements. The University of Minnesota has made the housing and feeding of out-of-town students one of its major concerns. It maintains dormitories and co-operative cottages, operates food services, and has a director of student housing who directs students to approved quarters. These are described below.

Housing for women*—Because of war conditions, the capacity of Ada Com-

* For information regarding university-owned residences for women, except Meredith Hall, please address the director of women's residences, Comstock Hall, Minneapolis 14, Minnesota. Inquiries regarding Meredith Hall should be addressed J. O. Christianson, 205 Administration Building, University Farm, St. Paul 8, Minnesota.

stock Hall, the newest dormitory, has been increased to 493 girls, the normal capacity is 278 girls. It overlooks the Mississippi River near the Coffman Memorial Union.

Sanford Hall is situated at 1100 University Avenue Southeast. It accommodates 245 women and provides both single and double rooms. This is now being occupied by the Army Specialized Training Program and no assurance can be given that Sanford Hall will be available for student use during the school year 1944-45.

Ten co-operative cottages, each in charge of a chaperone, offer comfortable homes for 120 women. In these units the student assists with the work of the house and thereby is able to reduce living expenses.

Meredith Hall is a residence for approximately 147 women students registered in the College of Agriculture, Forestry, and Home Economics and is located on the Agricultural campus. At the present time Meredith Hall is not available because dormitory facilities on the Agricultural campus are being used by the armed forces. Meals are not served at this dormitory, but may be obtained at the nearby cafeteria on that campus.

In addition to the facilities maintained by the University, there are numerous private rooming houses and sorority houses for women students. All of these are inspected and must meet the standards of operation set by the University before residence in them is approved. A list of approved rooming houses may be obtained from the director of student housing.

Housing for men—Numerous approved private dwellings are available for men residents. These also must meet standards set by the University. A list of approved and inspected private rooming houses for men may also be obtained upon application to the director of student housing.

Food services for students—Most of the university dormitories operate dining rooms for their residents. In addition, there are four food services in the Coffman Memorial Union. A large cafeteria and grill are located on the basement level. In the west wing a soda fountain and luncheon grill are open at all hours of the day. Special party services are available for groups of eight people or more. For the benefit of those students living in the Twin Cities there is a "commuter" lunchroom in the Union to which they may bring their lunches and obtain a hot dish and beverages if they desire. On the Agricultural campus, there is a large cafeteria operated for the convenience of individuals on that campus. This is centrally located on the campus and serves all meals.

GENERAL SERVICES

Other special services which lend to the fullness and conveniences of student life have been added from time to time. Among these are:

Bookstores—On the Main campus there are three bookstores. The Professional Colleges Book Store, carrying supplies and texts for students in the Institute of Technology, the School of Dentistry, the Medical School, and the School of Business Administration, is located on the basement level of the Main Engineering Building. Folwell Hall Book Store and used book exchange are on the basement level of Folwell Hall and serve students registered in the College of Science, Literature, and the Arts, the College of Education, and the General College. The Law School Book Store is located in the Law Building and is available for the use of students registered in that college. All of these units are operated on a co-operative basis. The Union has a stationery store well equipped with all stationery supplies. The bookstores are under the direction of full-time managers and are governed by student faculty boards of control. On the Agricultural campus there is a college bookstore for the students registered in the College of Agriculture, Forestry, and Home Economics.

Publications—The *Minnesota Daily*, the student newspaper, is published daily except Mondays and the day after any holiday. All students who pay the incidental fee, and

INCIDENTAL FEE

An incidental fee of \$9.15 a quarter is charged each student for which the student receives the privileges of the Coffman Memorial Union, the Health Service, the Speech Clinic, the Student Counseling Bureau, the *Minnesota Daily*, including the Official Daily Bulletin, the university post-office service, and the *University Address Book*. Students in the Institute of Technology pay \$9.55 per quarter and receive the *Minnesota Technologist* in addition to the foregoing.

All students who are registered for five credits or more in any quarter shall be required to pay the regular incidental fee; while students who are registered for less than five credits in any quarter shall not be charged any incidental fee, nor be permitted to pay this fee in order to obtain the privileges to which the payment of this fee entitles students.

MATRICULATION DEPOSIT

At the student's first registration at the University a matriculation deposit of ten dollars (\$10) is required to cover the following charges: locker rental, locker key deposit, laboratory breakages, drawing board rental (Architecture), military equipment (men), library fines, or damage to university property.

The matriculation deposit required of students registered for less than five credits is five dollars (\$5), whereas the matriculation deposit of students registered in the Graduate School is three dollars (\$3).

The unused balance of the deposit fee will be returned by *mail* upon cancellation or automatically after the beginning of the first quarter the student fails to return. If, at any time, the charges against a student shall warrant a renewal of the deposit, an additional fee of five dollars (\$5) will be required.

Laboratory deposit—A laboratory deposit of five dollars (\$5) is also required of students registered for courses in chemistry to cover the cost of materials. The unused balance will be credited to the student's matriculation deposit at the end of the course.

SPECIAL FEES

Examination of credentials fee (nonresidents applying for admission to Law, Medicine, Dentistry, Education (Senior College), and Business Administration).....\$5.00

For the duration of the war, the \$5 credential examination fee has been waived for nonresident applicants who are members of the armed forces.

This fee is not refundable but may be applied toward tuition within one year of date of application.

Music fee (in addition to tuition for those electing music)

Lesson fees—

One individual lesson per week.....\$25.00 per quarter

Class lessons (two- or three-hour lesson)..... 15.00 per quarter

Practice fees..... 5.00 per quarter

Pianos and organs are available for practice purposes upon payment of practice fees charged by the Music Department.

Course fees—for individual courses. The amounts are specified in the course announcements in the college bulletins.

The following special items may be included:

Special examination \$5.00

Examination on subjects taken out of class*..... 5.00

(No fee for such examination on first entering the University, if taken within the first six weeks)

* Such an examination may be taken only upon approval of the appropriate committee.

Large diploma fee: any graduate may receive the large diploma on payment of the special fee of.....	\$5.00
Duplicate diploma (if original has been lost or destroyed)	
Large duplicate diploma.....	7.50
Small duplicate diploma.....	5.00
Record service fee—50 cents, deducted from each student's deposit account upon refund, for which record certification service is furnished including three copies of record. Additional copies of records.....	0.50
Graduation fee—Graduate School.....	10.00
Other schools and colleges.....	7.50

Privilege fees—The fee for the privilege of late registration, or late payment of fees is \$2 through the third day of classes, on the fourth day the fee is \$2.50 and then increases 50 cents per day to a maximum of \$5. The fee for late change of registration is \$2.

Students of one college taking work in another—Where a student of a given college or school elects courses in another, such courses being accepted by the college in which the student is registered as a part of its curriculum, the tuition shall be that of the college in which he is registered.†

If, at any time, such student desires credit for this course towards the degree offered by the second college, he shall pay such additional tuition as is required by the second college, charged in accordance with the schedule indicated on page 54.

This is not to be interpreted as applying to students in such combination courses as Arts and Medicine, Arts and Dentistry, Arts and Business, etc., provided such students pay regular quarter fees for the full period of residence in the higher fee college.

REFUNDS

Tuition—Students who cancel their registration before the close of any quarter are entitled to refunds of the tuition fee on the following basis:

After Quarter Opens	Percentage of Refund
No attendance.....	100
One day to one week.....	90
One week to two weeks.....	80
Two weeks to three weeks.....	70
Three weeks to four weeks.....	60
Four weeks to five weeks.....	50
Five weeks to six weeks.....	40

No student who has been in attendance more than six weeks shall receive any refund of tuition.

Locker rental—Full rental fee for lockers may be refunded during the first two weeks of a quarter. After that time no reduction is made.

Incidental fee—Students in any college of the University, with the exception of the Institute of Technology, who cancel their registration before the end of the quarter, are entitled to a refund of the incidental fee on the same basis as the refund for tuition, except that in no case will more than \$7.50 of the incidental fee be refunded. Students in the Institute of Technology will receive refunds of the incidental fee on the same basis, except that the extra forty cents of the incidental fee in this institute will be entirely refunded during the first two weeks of the quarter, and none of this extra forty cents will be refunded after the second week of the quarter.

† A student paying full fees in a given college, electing courses in a lower fee college, shall pay no additional fees for the work so elected, but if electing in a higher fee college, may have the option of paying the pro rata fees for both or the full-time fees of the first and pro rata fees of the second.

Graduates of Minnesota state high school departments which are on the recommended list of the State Department of Education are accepted on the same basis as the graduates of fully accredited preparatory schools.

ACCREDITED COLLEGES

The following lists are correct as of February 1, 1944.

1. Four-year colleges

Augaburg College,¹ Minneapolis
 Carleton College, Northfield
 College of St. Benedict,¹ St. Joseph
 College of St. Catherine, St. Paul
 College of St. Scholastica, Duluth
 College of Saint Teresa, Winona
 Concordia College, Moorhead
 Gustavus Adolphus College, St. Peter
 Hamline University, St. Paul
 Macalester College, St. Paul
 St. John's University, Collegeville
 St. Mary's College,¹ Winona
 St. Olaf College, Northfield
 St. Thomas College, St. Paul

2. Minnesota teachers colleges

Bemidji State Teachers College¹
 Duluth State Teachers College¹
 Mankato State Teachers College¹
 Moorhead State Teachers College¹

St. Cloud State Teachers College¹
 St. Paul Diocesan Teachers College
 Winona State Teachers College¹

3. Junior colleges

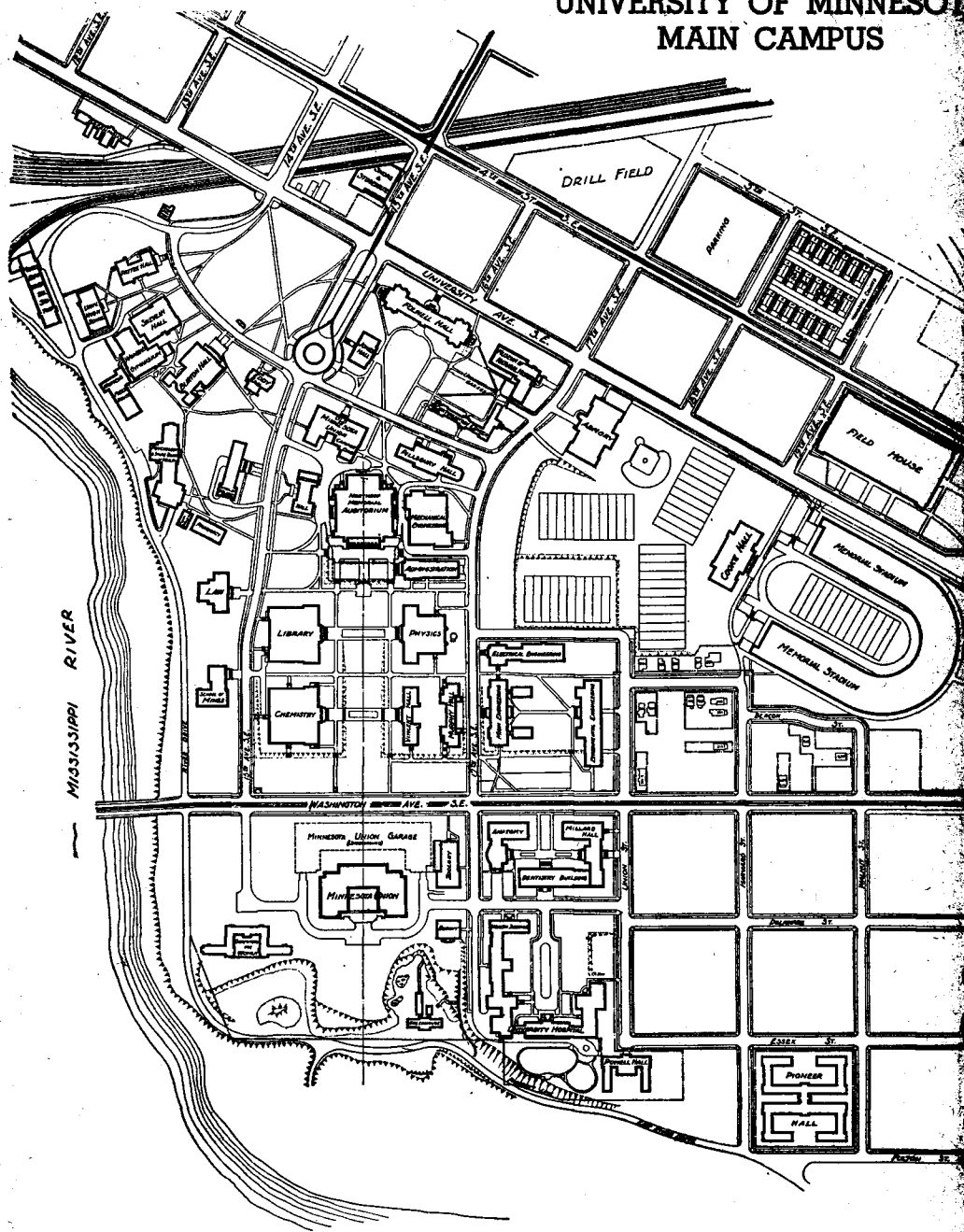
Austin Junior College
 Bethany Lutheran College, Mankato
 Bethel Institute, St. Paul
 Brainerd Junior College
 Concordia College, St. Paul
 Crosby-Ironton Junior College
 Duluth Junior College
 Ely Junior College
 Eveleth Junior College
 Hibbing Junior College
 Itasca Junior College, Coleraine
 Rochester Junior College
 Tracy Junior College
 Virginia Junior College
 Worthington Junior College

¹ Graduates of this institution may be admitted to the Graduate School under certain specified conditions.

THE UNIVERSITY OF MINNESOTA

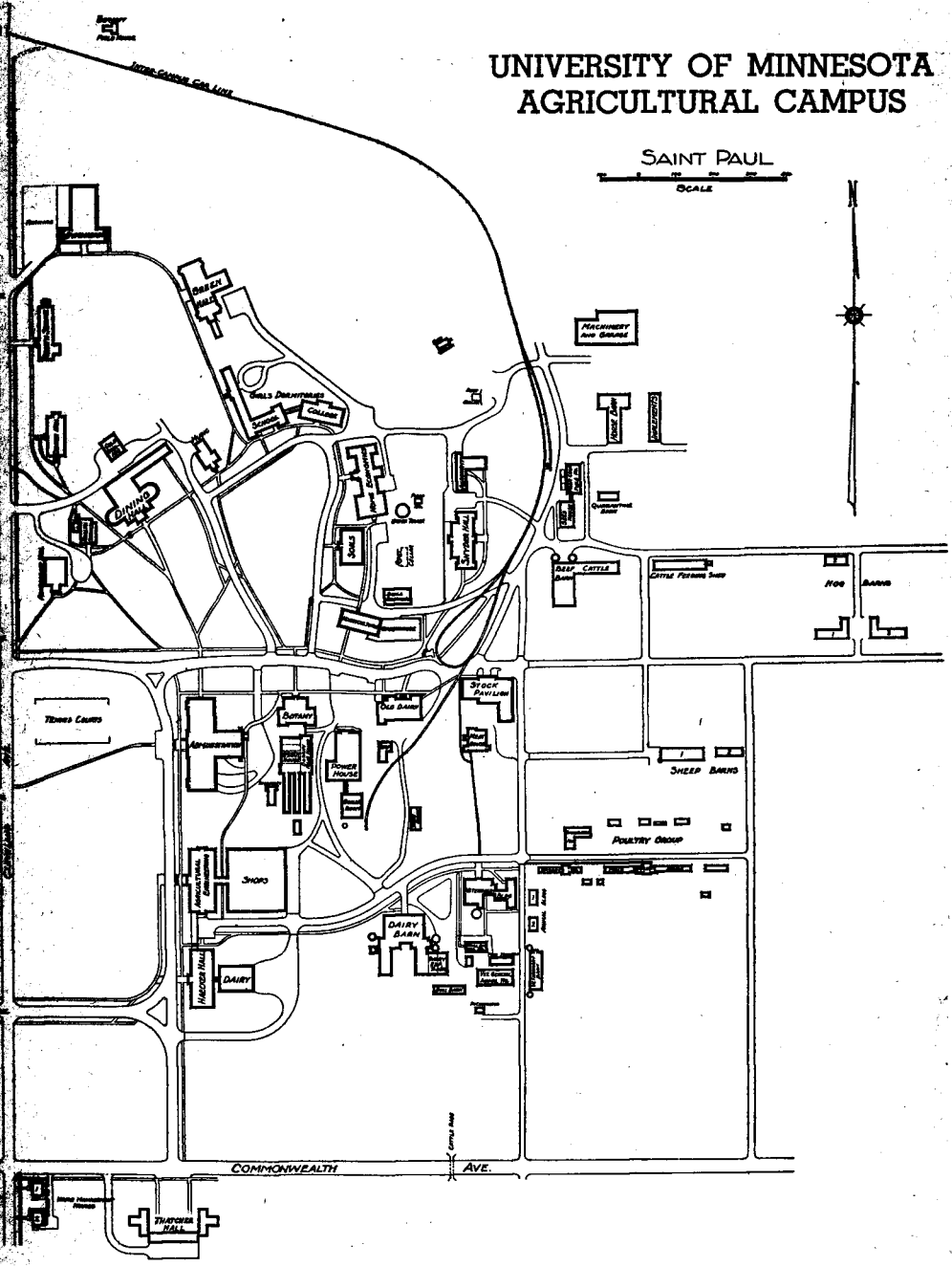
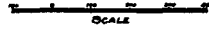
Founded in the Faith that Men are Ennobled
 by Understanding. Dedicated to the Advancement of
 Learning and the Search for Truth. Devoted to the
 Instruction of Youth and the Welfare of the State.

UNIVERSITY OF MINNESOTA MAIN CAMPUS



UNIVERSITY OF MINNESOTA AGRICULTURAL CAMPUS

SAINT PAUL



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The Bulletin of the UNIVERSITY of MINNESOTA

Combined Class Schedule for 1944-1945

One copy of this schedule is issued without charge to each student in Science, Literature, and the Arts; Education; Agriculture, Forestry, and Home Economics; Business Administration; University College; and Public Health Nursing; and to first quarter freshmen in Nursing. Additional copies may be purchased at the University of Minnesota Book Stores, 2 Folwell Hall and 17 Engineering Building.

Price: 35 cents



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Combined Class Schedule for 1944-1945

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UNIVERSITY CALENDAR, 1944-45

Fall Quarter

1944			
September	18	Monday	Extension registration, first semester begins
September	21	Thursday	Fall quarter fees due for students in residence spring quarter in the Institute of Technology, Business Administration, Dentistry, Dental Hy- giene, Law, Pharmacy, and Agriculture, Forestry, and Home Economics
September	25	Monday	Entrance tests ¹
September	25-26		Registration for Freshman Week for new students entering the freshman class
September	25-29		Freshman Week; Medical and Speech examina- tions; Registration, ² College of Science, Litera- ture, and the Arts, and General College
September	28-29		Registration, ² all colleges not included above. Fall quarter fees due for all students in Science, Literature, and the Arts, General College, Edu- cation, Public Health Nursing, Medical School, Medical Technology, Public Health, Physical Therapy, and for new students in other under- graduate colleges
October	2	Monday	Fall quarter classes begin 8:30 a.m. ³ First semester extension classes begin ⁴
October	5	Thursday	Opening convocation, 11:30 a.m.
October	7	Saturday	Last day for extension registration
October	14	Saturday	Last day for registration and payment of fees for the Graduate School and for teachers in service
October	19	Thursday	Senate meeting, 4:30 p.m.
November	7	Tuesday	Election Day; holiday (except extension)
November	11	Saturday	Armistice Day; holiday (except extension)
November	30	Thursday	Thanksgiving Day; holiday
December	15-16 and 18-21		Final examination period
December	21	Thursday	Commencement Convocation; Senate meeting, 4:30 p.m. Fall quarter ends 6:00 p.m. ⁵

Winter Quarter

December	28	Thursday	Winter quarter fees due for students in residence fall quarter in undergraduate colleges
1945			
January	2	Tuesday	Entrance tests. ¹ Registration ² for new students in all colleges. Winter quarter fees due for new students in all undergraduate colleges
January	3	Wednesday	Winter quarter classes begin 8:30 a.m. ³
January	13	Saturday	Last day for registration and payment of fees for the Graduate School and for teachers in service
January	29	Monday	Extension registration, second semester begins
February	10	Saturday	First semester extension classes close
February	12	Monday	Second semester extension classes begin ⁴ Lincoln's Birthday; holiday (except extension)

CALENDAR

February	15	Thursday	Charter Day Convocation; Senate meeting, 4:30 p.m.
February	17	Saturday	Last day for extension registration
February	22	Thursday	Washington's Birthday; holiday (except extension)
March 16-17 and	19-22		Final examination period
March	22	Thursday	Commencement Convocation. Spring quarter fees due for students in residence winter quarter in undergraduate colleges. Winter quarter ends 6:00 p.m.

Spring Quarter

March	30	Friday	Good Friday; holiday (except extension)
March	31	Saturday	Entrance tests ¹
March 31, April 2			Registration ² for new students in all colleges except the Institute of Technology
April	2	Monday	Registration for students in Institute of Technology. Spring quarter fees due for new students in all undergraduate colleges
April	3	Tuesday	Spring quarter classes begin 8:30 a.m. ³
April	14	Saturday	Last day for registration and payment of fees for the Graduate School and for teachers in service
May	17	Thursday	Cap and Gown Day Convocation; Senate meeting, 4:30 p.m.
May	30	Wednesday	Memorial Day; holiday (except extension)
June	8	Friday	Second semester extension classes close
June 8-9 and 11-15			Final examination period
June	10	Sunday	Baccalaureate service
June	15	Friday	Spring quarter ends 6:00 p.m.
June	16	Saturday	Seventy-third annual commencement

Summer Session

June	18-19		Registration, ² first term. First term fees due for students in all colleges
June	20	Wednesday	First term Summer Session classes begin 8:30 a.m. ³
July	4	Wednesday	Independence Day; a holiday
July	26	Thursday	Commencement Convocation
July	28	Saturday	First term closes
July	30	Monday	Registration, ² second term. Second term fees due for students in all colleges. Second term classes begin 8:30 a.m. ³
September	1	Saturday	Second term closes

¹ Applicants are urged to take entrance tests a month in advance of the quarter for which admission is desired. Tests may be taken at the Student Counseling Bureau. See Admission, p. 11, Bulletin of General Information.

² Registration subsequent to the date specified will necessitate the approval of the college concerned. See privilege fees for late registration or late payment of fees, page 56, Bulletin of General Information. No student may register in the University after one week from the beginning of the quarter excepting in unusual cases wherein circumstances shall justify the appropriate committee of the college concerned permitting registration at a later date.

³ First hour classes begin at 8:15 a.m. at University Farm.

⁴ This date does not refer to correspondence study courses, which may be started at any time during the year.

⁵ Extension classes continue to Saturday, December 23, and will resume Tuesday, January 2, 1945.

DIRECTORY OF ADMINISTRATIVE OFFICES

ADMINISTRATION

Walter C. Coffey, M.S., LL.D., President.....	Adm202
Malcolm M. Willey, Ph.D., Vice President, Academic Administration.....	Adm202
William T. Middlebrook, B.A., M.C.S., Vice President, Business Administration.....	Adm326
Anne Dudley Blitz, M.A., LL.D., Dean of Women.....	Adm120
William S. Carlson, Ph.D., Director of Admissions and Records (on leave)	Adm105
True E. Pettengill, M.S., Acting Director of Admissions and Records and Recorder.....	Adm105
Edmund S. Williamson, Ph.D., Dean of Students.....	Adm213

COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS

T. Raymond McConnell, Ph.D., Dean.....	Adm219
Joseph M. Thomas, Ph.D., Assistant Dean for the Senior College and Professor of English.....	F217
William H. Bussey, Ph.D., Assistant Dean for the Junior College and Professor of Mathematics.....	F106
Royal R. Shumway, B.A., Assistant Dean for Students' Work and Professor of Mathematics.....	Adm219
Horace T. Morse, Ph.D., Administrative Assistant.....	F106

COLLEGE OF EDUCATION

Wesley E. Peik, Ph.D., Dean and Professor of Education.....	Bu204
Marcia Edwards, Ph.D., Assistant Dean and Associate Professor of Education.....	Bu202
G. Lester Anderson, Ph.D., Director of Training School and Assistant Professor of Education.....	UHS105
Jean H. Alexander, M.A., Chairman of Students' Work Committee and Assistant Professor of Education.....	Bu206
Anton Thompson, Ph.D., Acting Director of the Bureau of Recommendations and Instructor.....	Bu208

COLLEGE OF AGRICULTURE, FORESTRY, AND HOME ECONOMICS

Clyde H. Bailey, Ph.D., Dean and Director of the Department of Agriculture.....	Ad(UF)201
Henry Schmitz, Ph.D., Dean of the College of Agriculture, Forestry, and Home Economics.....	Ad(UF)202

SCHOOL OF BUSINESS ADMINISTRATION

....., Dean.....	VH127
John J. Reighard, M.A., C.P.A., Assistant Dean and Professor of Accounting.....	VH104
J. Warren Stehman, Ph.D., Chairman of the Curriculum Committee and Professor of Economics and Finance.....	VH204
Bruce D. Mudgett, Ph.D., Chairman of the Graduate Committee and Professor of Economics and Statistics.....	VH320
Harry J. Ostlund, B.A., Chairman of the Students' Work Committee and Associate Professor of Accounting.....	VH104

SCHOOL OF NURSING

Harold S. Diehl, M.A., D.Sc., Dean of the Medical Sciences.....	MeS127
Katharine J. Densford, M.A., R.N., Director of the School of Nursing.....	MeS125
Ruth B. Freeman, R.N., M.A., Director of the Course of Public Health Nursing.....	MH121

DIRECTORY OF DEPARTMENTAL OFFICES

Administration (Educational) 202,224Bu	Library Methods	107Lib
Admissions and Records, Office	Linguistics and Philology	118F
of; Main campus..... Adm105	Mathematics	119F
Admissions and Records, Office	Methods and Directed Teach-	
of; University Farm..... 203dAd(UF)	ing	105UHS,220,206Bu
Agricultural Biochemistry 214SnH(UF)	Military Science and Tactics.....	106A
Agricultural Economics ..303aHH(UF)	Music	107Mu
Agricultural Education ..205Hr(UF)	Music Education	107Mu
Agricultural Engineering ..201En(UF)	Natural Science (College of	
Agronomy and Plant Genetics	Education)	15UHS
308Ag(UF)	Natural Science (College of	
Anatomy (Human)	Science, Literature, and Arts)	148Ph
201 IA	Naval Science and Tactics.....	203A
Animal and Poultry Hus-	Nursery School and Kinder-	
bandry	garten Education	100CWI
8LsPav(UF)	Nursing	125MeS
Anthropology	Nursing Education	125MeS
106WeH	Philosophy	323F
Architecture	Physical Education for Men.....	208CH
315E	Physical Education for Women	101NGW
Art Education	Physics	148Ph
201J	Physiology	318MH
Astronomy	Plant Pathology and Botany.....	
359Ph	304PP(UF)	
Bacteriology	Political Science	203Bu
228MH	Preventive Medicine and Public	
Botany	Health	121MH
209Bo	Professional Education of	
Business Administration ..127VH	Teachers	216,220Bu
Center for Continuation Study 136CCS	Psychology	112Psy
Chemistry	Public Health Nursing.....	121MH
127C	Publications and Rural Jour-	
Child Welfare	nalism	115AD(UF)
101bPt	Rhetoric	309En(UF)
Classics	Romance Languages	200dF
118F	Rural Sociology	202OD(UF)
Clinical Psychology	Russian	317F
112Psy	Scandinavian	13F
Commercial Education	School Health Work	HS
102UHS	Secondary Education	218Bu
Dairy Husbandry	Social Science (College of	
207HH(UF)	Science, Literature, and Arts)	111J
Drawing and Descriptive Ge-	Social Studies (College of Edu-	
ometry	cation)	226Bu
208E	Sociology and Social Work.....	108J
Economics	Soils	100aSo(UF)
127VH	Speech	309aF
Educational Administration	Student Counseling Bureau.....	101EdH
224Bu	Supervision (College of Edu-	
Educational Psychology	cation)	218,220Bu,105UHS
302Psy	Teachers of Subnormal Children	358Psy
Educational Sociology	Veterinary Medicine	119Ve(UF)
222Bu	Vocational Orientation	213Adm
Elementary Education	Zoology	108Z
216,220Bu		
English		
219F		
Entomology and Economic Zo-		
ology		
300Ad(UF)		
Fine Arts		
101J		
Forestry		
110GH(UF)		
Geography		
101aBu		
Geology and Mineralogy		
108P		
German		
210F		
Greek		
118F		
History		
102Bu		
History of Education		
206,226Bu		
Home Economics		
215HE(UF)		
Home Economics Education 215HE(UF)		
Horticulture		
111Hr(UF)		
How To Study		
250Psy		
Humanities		
323F		
Industrial Education		
222Bu		
Journalism		
111MurH		
Latin		
118F		

EXPLANATIONS

Course numbering—A course is designated by a department name, a number, and a letter. It has the same number in whatever quarter it is offered. The quarter is indicated by letter (f, fall; w, winter; s, spring; su, summer).

Examples:

1f-2w, a two-quarter course given in the fall and winter.

1w-2s, the same course given in the winter and spring.

3f,w,s, a one-quarter course given each quarter.

Junior College courses in the College of Science, Literature, and the Arts (primarily for freshmen and sophomores) are numbered from 1 to 49. Senior College courses in the College of Science, Literature, and the Arts are numbered as follows: courses primarily for juniors and seniors, from 50 to 99; for juniors, seniors, and graduates, from 100 to 199; for graduates only, from 200 up. This system is not uniformly followed by departments in other colleges than Science, Literature, and the Arts.

Statement of credits—The number of credits stated for two- and three-quarter courses is the number for the entire course, not the number for each quarter.

OTHER ABBREVIATIONS AND SYMBOLS

I, II, III, etc. Main campus, first hour (8:30 to 9:20), second hour (9:30 to 10:20), third hour (10:30 to 11:20), fourth hour (11:30 to 12:20), fifth hour (12:30 to 1:20), sixth hour (1:30 to 2:20), seventh hour (2:30 to 3:20), eighth hour (3:30 to 4:20), ninth hour (4:30 to 5:20).

University Farm, first hour (8:15 to 9:05), second hour (9:15 to 10:05), etc., to 1:05; sixth hour (1:30 to 2:20), etc.

Ar.	To be arranged or assigned.
Aud.	Auditorium.
Cred.	Credits.
Lab.	Laboratory.
Lect.	Lecture.
MTWThFS	Monday, Tuesday, etc.
Prereq.	Prerequisite.
Rec.	Recitation.
Sec.	Section.

† To receive credit for any part of this course, a student must complete the parts preceding the dagger.

‡ There is a fee (amount to be specified) for this course.

A parenthetical statement after the title of each course gives the following information: the number of credits the course carries, the classes to whom it is open, and the courses prerequisite to it. *Abbreviated statement:* (5 cred.; jr., sr.; prereq. 6). *Expanded statement:* This course carries five credits, is open to juniors and seniors only, and has for a prerequisite, Course 6 in the same department.

Buildings

A, Armory	AH, Appleby Hall
Ad, Administration, University Farm	BB, Bull Barn, University Farm
Adm, Administration	BCB, Beef Cattle Barn, University Farm
Ag, Agronomy, University Farm	BeH, Berry House, University Farm
AgBot, Agricultural Botany, University Farm	BFH, Botany Field House, University Farm

- Bo, Botany
 BoG, Botany Greenhouse
 Bot, Botany, University Farm
 BrH, Brewster Hall, University Farm
 Bu, Burton Hall
 C, Chemistry Bldg.
 CCS, Center for Continuation Study
 CH, Cooke Hall
 CMU, Coffman Memorial Union
 CoH, Ada Comstock Hall
 CS, Carpenter Shop, University Farm
 CSP, Cold Storage Plant, University Farm
 CWI, Child Welfare Institute
 DCB, Dairy Cattle Barn, University Farm
 DeH, Dexter Hall, University Farm
 DH, Dining Hall, University Farm
 DHD, Dining Hall Dormitory, University Farm
 E, Main Engineering
 EdH, Eddy Hall
 EE, Electrical Engineering
 En, Engineering Bldg, University Farm
 Ex, Experimental Engineering
 F, Folwell Hall
 FCFH, Farm Crops Field House, University Farm
 FdH, Field House
 G, Greenhouse (13th and University Ave. S.E.)
 GH, Green Hall, University Farm
 Gy, Gymnasium, University Farm
 HB, Horse Barn, University Farm
 HE, Home Economics, University Farm
 HH, Haecker Hall, University Farm
 HL, Hydraulics Laboratory, Hennepin Island
 HoB, Home Building, University Farm
 Hospitals
 CI, Cancer Institute
 EH, Eustis Hospital
 EMH, Elliot Memorial Hospital
 HS, Health Service
 PW, Psychiatric Ward
 TM, Todd Memorial Hospital
 UD, University Dispensary
 HP, Heating Plant
 Hr, Horticulture, University Farm
 HS, Health Service
 HS, Health Service, University Farm
 IA, Institute of Anatomy
 J, Jones Hall
 L, Law Bldg.
 Lib, Library Bldg.
 LsPav, Livestock Pavilion, University Farm
 MB, Music Bldg., University Farm
 ME, Mechanical Engineering
 MeH, Meredith Hall, University Farm
 MeS, Medical Sciences
 MEx, Mines Experiment Station
 MH, Millard Hall
 MNH, Museum of Natural History
 MS, Machinery Shop, University Farm
 MSh, Meat Shop, University Farm
 Mu, Music Bldg.
 MurH, William J. Murphy Hall
 NGW, Norris Gymnasium for Women
 NMA, Northrop Memorial Auditorium
 OD, Old Dairy, University Farm
 OSL, Oak Street Laboratories
 P, Pillsbury Hall
 Pe, Pendergast Hall, University Farm
 PG, Poultry Group, University Farm
 Ph, Physics
 PH, Power House, University Farm
 PiH, Pioneer Hall
 PoH, Louise M. Powell Hall
 PP, Plant Pathology, University Farm
 Psy, Psychology
 Pt, Pattee Hall
 S, Stadium
 SaH, Sanford Hall
 SB, Swine Barn, University Farm
 SBH, State Board of Health
 SH, Seed House, University Farm
 ShH, Shevlin Hall
 SnH, Snyder Hall, University Farm
 So, Soils, University Farm
 SS, Storehouse and Shops
 St, Stock Pavilion, University Farm
 TH, Thatcher Hall, University Farm
 UHS, University High School
 VB, Veterinary Barn, University Farm
 Ve, Veterinary, University Farm
 VH, Vincent Hall
 WeH, Westbrook Hall
 WeiH, Weigley House, University Farm
 WuH, Wulling Hall
 Z, Zoology Bldg.

LIBRARY INSTRUCTION

Library Methods 1 is not a part of the professional curriculum of the Division of Library Instruction. Library Methods 51 to 126 are professional courses open only to senior students or graduates (except as a minor open only to juniors in the College of Education). A full four-year course of preparation instead of three before taking the professional library courses is urged wherever practicable. The completion of a full year in Library Methods is accepted for graduation in the College of Science, Literature, and the Arts, the College of Education, and the University College. Senior students from other colleges may be admitted on approval by the dean of the college concerned and the director of the Division of Library Instruction.

The fees for Library Methods (51-126) are \$3.50 per credit hour or \$42 per quarter (\$4.75 per credit hour and \$56 per quarter for nonresidents). Students with programs in other colleges or divisions (except those registered in Library Methods 1), must pay the special fee for all library instruction courses taken.

A course for hospital library training is also given in the spring quarter. It includes 12 credit hours of class work, followed by six weeks of practice, or internship, in an approved hospital library. Candidates for admission to this special course must have completed satisfactorily (1) at least three years of approved college work and at least two quarters of work in an approved library school or an equivalent of approved experience in hospital library work, and (2) the following courses or their equivalents: Public Health 50, Public and Personal Health, (3 credits); Psychology 1-2, General, (6 credits); Psychology 144-145, Abnormal Psychology, (6 credits); Sociology 1, Introduction to Sociology, (5 credits); Sociology 49, Social Pathology, (3 credits); Sociology 90, Survey of Social Work, (5 credits); Zoology 1-2-3, General Zoology, (10 credits). Students are advised to register only for the entire group of courses, and no candidates for a degree or special certificate will be excused from field observation and practice.

Some minor changes in the curriculum may be made necessary by present war conditions. Candidates for admission to this course should apply for the special bulletin giving more detailed information regarding the course.

A student working for an education minor must have completed eighteen credits from the following: 52f, 54f, 62w, 71w, 57s, 58s, and 64s.

For a library endorsement by the Minnesota State Department of Education a student must have completed nine credits from the list of those subjects required for a minor.

No.	Title	Hour	Day	Bldg.	Instructor
1f, w, s*	Use of Books and Libraries (2 cred.; fr., soph. only; no prereq.) Sec. 1	II	MW	3Lib	Mr. Russell, Miss Moen
	2	IV	MW	3Lib	Mr. Shove
<i>Professional Courses</i>					
51f	Bibliography (3 cred.; no prereq.)	III	MWF	5Lib	Mr. Shove
52f†	Cataloging (3 cred.; no prereq.) Sec. 1 (Ed. students)	I	MWF	5Lib	Miss Hutchinson
	2	IV	MWF	5Lib	Miss Hutchinson

* For students in the College of Science, Literature, and the Arts. Others may obtain a special card from the Junior College office.

† Required of all candidates for a degree in library methods.

LIBRARY INSTRUCTION

No.	Title	Hour	Day	Bldg.	Instructor
53w	Advanced Cataloging (3 cred.; prereq. 52)	IV	MWF	5Lib	Miss Hutchinson
54f§	Classification (3 cred.; no prereq.)	II	TThS	5Lib	Miss Hutchinson
55w	Advanced Classification (3 cred.; prereq. 54)	II	TThS	5Lib	Miss Hutchinson
57s	Secondary School Libraries (3 cred.; prereq. 9 cred. in library methods)	IX I, IV	W S	5Lib	Miss Greer
58s	Public Library Administration (3 cred.; prereq. 9 cred. in library methods)	II	TThS	5Lib	Mr. Vitz
60f	Library Binding (1 cred.; no prereq.)	III	T	5Lib	Mr. Shove
61f,w,s§	Library Practice (3 to 4½ cred.; prereq. 15 cred. in library methods)	Ar	Ar	Ar	
62w§	Reference (3 cred.; no prereq.)	III	MWF	5Lib	Mr. Strout
63s	Advanced Reference (3 cred.; prereq. 62)	III	MWF	5Lib	Mr. Strout
64s	Selection of Books for Adolescents (3 cred.; prereq. 9 cred. in library methods)	II	MWF	5Lib	Miss Smith
67w	Library Printing (1 cred.; no prereq.)	III	T	5Lib	Mr. Shove
68s	Circulation Work (1 cred.; prereq. 9 cred. in library methods)	III	T	5Lib	Mr. Strout
69f	Current Library Problems (3 cred.; prereq. 9 cred. in library methods or with Lib. Meth. 51, 52, 54)	II	MWF	5Lib	Mr. Strout
70w	Current Library Problems (3 cred.; prereq. 69)	II	MWF	5Lib	Mr. Strout
71w	Library Work with Children (3 cred.; prereq. 9 cred. in library methods or 6 cred. and one 3-cred. course in library training with 71)	I	MWF	5Lib	Miss McGregor
72s	Library Work with Children (3 cred.; prereq. 71)	I	MWF	5Lib	Miss McGregor
73f	Selection of Books for Adults (2 cred.; no prereq.)	III	ThS	5Lib	Mr. Strout
74w	Selection of Books for Adults (2 cred.; prereq. 73)	III	ThS	5Lib	Miss Hutchinson
75s	Selection of Books for Adults (2 cred.; prereq. 73, 74)	III	ThS	5Lib	Miss Hutchinson
76s	Library Service in Hospitals (3 cred.)	I	TThS	3Lib	Miss Jones and others
77s	Book Selection for Hospital Patients (3 cred.)	IV	MWF	3Lib	Miss Methven and others
78s	Reading and the Mental Patient (2 cred.)	III	TS	3Lib	Miss Jones and others
79s	Medical Reference Work (3 cred.)	II	MWF	312Lib	Miss Ruble
80s*	Hospital Library Practice—A six-week internship in approved hospitals (4 cred.)				Miss Methven
126s	Subject Bibliography (3 cred.; prereq. sr. or grad. standing and bibliographical or research training or experience)	I	MWF	3Lib	Mr. Russell

* This practice will be a six-week internship in approved hospitals. The specific arrangements will be made by Miss Methven after the close of the class work early in June. This internship is required of all candidates for degrees or certificates.

§ Required of all candidates for a degree in library methods.

MILITARY SCIENCE AND TACTICS

(Branch Immaterial)

Basic Courses

No.	Title	Hour	Day	Bldg.	Instructor
1f,2w,3s	First Year Basic Course (1 cred.; no prereq.)	I	MWF	A	Ar
	(Other sections arranged if sufficient demand. Inquire at Military office, Armory)				
4f,5w,6s	Second Year Basic Course (1 cred.; prereq. 1, 2, 3, or equivalent in Junior ROTC)	Ar	Ar	A	Ar
	(Inquire at Military office in Armory)				

Advanced Courses§

151-152*	First Year Advanced Course (3 cred. per qtr.; prereq. 4, 5, 6) (Not offered)
153	First Year Advanced Course (3 cred.; prereq. 4, 5, 6) (Not offered)
154-155*	Second Year Advanced Course (3 cred. per qtr.; prereq. 151-152, 153) (Not offered)
156*	Second Year Advanced Course (3 cred.; prereq. 54-55) (Not offered)

NOTE.—The general rule regarding credit for the Advanced Courses is: "Three credits per quarter will be allowed for work in the advanced ROTC courses with a maximum of 18 quarter credits for the two-year course."

NAVAL SCIENCE AND TACTICS

Sixteen-Week Term—July 1, 1944 to November 1, 1944

NS 1	Seamanship (3 cred.; prereq. V-12 201)				
	Sec. 1	I	MWF	A	Ar
	2	III	MWF	A	Ar
	3	I	TThS	A	Ar
	4	III	TThS	A	Ar
NS 2	Seamanship (3 cred.; prereq. NS 1)				
	Sec. 1	II	MWF	A	Ar
	2	IV	MWF	A	Ar
	3	II	TThS	A	Ar
	4	IV	TThS	A	Ar
NS 3	Communications (3 cred.; prereq. NS 1)				
	Sec. 1	II	MWF	A	Ar
	2	IV	MWF	A	Ar
	3	II	TThS	A	Ar
	4	IV	TThS	A	Ar
NS 4	Navigation and Nautical Astronomy I (3 cred.; prereq. V-12 201)				
	Sec. 1	I	MWF	A	Ar
	2	III	MWF	A	Ar
	3	I	TThS	A	Ar
	4	III	TThS	A	Ar
NS 5	Navigation and Nautical Astronomy II (3 cred.; prereq. NS 4)				
	Sec. 1	II	MWF	A	Ar
	2	IV	MWF	A	Ar
	3	II	TThS	A	Ar
	4	IV	TThS	A	Ar
NS 6	Naval Administration and Law (3 cred.; prereq. NS 5)				
	Sec. 1	I	MWF	A	Ar
	2	III	TThS	A	Ar
NS 7	Naval Tactics and Aviation (3 cred.; prereq. NS 9)				
	Sec. 1	III	MWF	A	Ar
	2	I	TThS	A	Ar

Sixteen-Week Term—November 1, 1944 to March 1, 1945

NS 1	Seamanship (3 cred.; prereq. V-12 201)				
	Sec. 1	I	MWF	A	Ar
	2	I	TThS	A	Ar
NS 2	Seamanship (3 cred.; prereq. NS 1)				
	Sec. 1	II	MWF	A	Ar
	2	IV	MWF	A	Ar
	3	II	TThS	A	Ar
	4	III	TThS	A	Ar

* Offered on the Main campus.

§ No more Advanced Course contracts will be made for the duration of the war.

NAVAL SCIENCE AND TACTICS

No.	Title	Hour	Day	Bldg.	Instructor
NS 3	Communications (3 cred.; prereq. NS 1)				
	Sec. 1	II	MWF	A	Ar
	2	IV	MWF	A	Ar
	3	III	TThS	A	Ar
	4	IV	TThS	A	Ar
NS 4	Navigation and Nautical Astronomy I (3 cred.; prereq. V-12 201)				
	Sec. 1	I	MWF	A	Ar
	2	I	TThS	A	Ar
NS 5	Navigation and Nautical Astronomy II (3 cred.; prereq. NS 4)				
	Sec. 1	II	MWF	A	Ar
	2	IV	MWF	A	Ar
	3	II	TThS	A	Ar
	4	IV	TThS	A	Ar
NS 6	Communications (3 cred.; prereq. NS 1)				
	Sec. 1	I	MWF	A	Ar
	2	III	MWF	A	Ar
	3	I	TThS	A	Ar
NS 8	Ordnance and Gunnery (3 cred.; prereq. NS 5)				
	Sec. 1	III	MWF	A	Ar
	2	II	TThS	A	Ar
	3	IV	TThS	A	Ar
NS 10	Damage Control and Engineering (3 cred.; prereq. NS 9)				
	Sec. 1	III	MWF	A	Ar
	2	III	TThS	A	Ar
<i>Sixteen-Week Term—March 1, 1945 to July 1, 1945</i>					
NS 1	Seamanship (3 cred.; prereq. V-12 201)				
	Sec. 1	I	MWF	A	Ar
	2	I	TThS	A	Ar
NS 2	Seamanship (3 cred.; prereq. NS 1)				
	Sec. 1	IV	MWF	A	Ar
	2	IV	TThS	A	Ar
NS 3	Communications (3 cred.; prereq. NS 1)				
	Sec. 1	III	MWF	A	Ar
	2	III	TThS	A	Ar
NS 4	Navigation and Nautical Astronomy I (3 cred.; prereq. V-12 201)				
	Sec. 1	I	MWF	A	Ar
	2	I	TThS	A	Ar
NS 5	Navigation and Nautical Astronomy (3 cred.; prereq. NS 4)				
	Sec. 1	IV	MWF	A	Ar
	2	IV	TThS	A	Ar
NS 6	Communications (3 cred.; prereq. NS 1)				
	Sec. 1	II	MWF	A	Ar
	2	III	MWF	A	Ar
	3	II	TThS	A	Ar
	4	III	TThS	A	Ar
NS 8	Ordnance and Gunnery (3 cred.; prereq. NS 9)				
	Sec. 1	I	MWF	A	Ar
	2	III	MWF	A	Ar
	3	I	TThS	A	Ar
	4	III	TThS	A	Ar
NS 9	Ordnance and Gunnery (3 cred.; prereq. NS 8)				
	Sec. 1	II	MWF	A	Ar
	2	IV	MWF	A	Ar
	3	II	TThS	A	Ar
	4	IV	TThS	A	Ar
NS 11	Naval Science (3 cred.; prereq. NS 9)				
	Sec. 1	II	MWF	A	Ar
	2	II	TThS	A	Ar

NOTE: Some rearrangement of sections may be necessary to meet conditions of future enrollment. Students are cautioned to check with Department of Naval Science and Tactics before using above schedules.

PHYSICAL EDUCATION FOR MEN

Supervisor of Physical Education—Associate Professor Piper.

The courses in sports education were formerly offered for the purpose of providing instruction and practice in sports of a recreational nature in which men might participate during present and future years for more enjoyable living. The present emphasis is on the improvement of the physical fitness status of men students in order to make them better prepared for military, production, or home service. The status of these courses in the various colleges is:

1. **College of Education**—(All except majors and minors in physical education) required with credit.
2. **General College**—Required with credit.
3. **Institute of Technology**—Elective with credit.
4. **College of Agriculture, Forestry, and Home Economics**—Elective with credit.
5. **University College**—Elective with credit.
6. **College of Pharmacy**—Required of students low on fitness test. Credits as recommended by the dean.
7. **Science, Literature, and the Arts**—Required six quarters with credit.
8. **School of Business Administration**—Elective with credit.
9. **All other colleges**—Elective without credit.

A towel and locker fee of \$1.25 per quarter is charged all students using physical education facilities for activity. Uniforms for class work or recreational activity are \$1 per quarter.

The facilities of the Department of Physical Education, including the golf course, tennis courts, gymnasium, swimming pools, and playing fields, are available for use by the general student body. All men are invited to participate in some form of physical activity. For information regarding the intramural and intercollegiate athletic program see the handbook published by the Department of Physical Education for Men or inquire at Cooke Hall.

For specialized curriculum in Physical Education for Men, see College of Education Bulletin.

SPORTS EDUCATION

No. 1f,2w,3s	Title	Hour	Day	Bldg.	Instructor
	Sports Education. Includes conditioning activities plus a variety of sports (1 cred.* per qtr.; all; no prereq.)				
		II	MWF	215CH	Ar
		III	MWF		
		IV	MWF		
		V	MWF		
		VI	MWF		
		VII	MWF		

Specialized Courses

Individual Physical Education
Activities (by permission of
instructor only)

III	MWF	Mr. Osell
IV	MWF	
VIII	MWF	

Substitution of athletic team practice may be allowed by the department.

Note—For professional courses in major and minor curricula in Physical Education for Men, see page 137.

* For colleges offering credit, see list above.

PHYSICAL EDUCATION FOR WOMEN

Major adviser—Associate Professor Baker.

The General Course in Physical Education offered by the Department of Physical Education for Women provides a wide program of sports and other activities to meet the varying interests and needs of all the women students. The program offers an opportunity to take courses for the purpose of body building and physical fitness and for the acquisition of personal and recreational skills.

The status of these courses in the various colleges for which they are offered is as follows:

1. **College of Education**—Requirement: four quarters, total of 5 credits, i.e., 1½ credits each for three quarters meeting three times a week; ½ credit for one quarter meeting twice a week.
2. **General College**—Requirement: three quarters. Credits upon transferring to Education or Agriculture, Forestry, and Home Economics.
3. **College of Agriculture, Forestry, and Home Economics**—Requirement: 3 credits, 1½ credits each for two quarters meeting three times a week; or 1 credit each for three quarters meeting twice a week.
4. **School Dentistry, Dental Hygienists**—Requirement: three quarters. No credit. Two quarters meeting three times a week, one quarter meeting twice a week.
5. **Institute of Technology**—Requirement: one quarter (spring). No credit.
6. **All other colleges**—Elective without credit.

Note—For professional courses in major and minor curricula in Physical Education for Women, see page 139.

Statement of fees—A physical education fee of \$1.75 per quarter is charged for all starred courses. Maximum fee per student, \$3.50 per quarter. For Methods and Directed Teaching courses a fee of \$1 per credit is charged as indicated in the footnote.

The facilities of the Department of Physical Education for Women, including an 18-hole golf course, tennis courts, three gymnasiums, two swimming pools, large indoor sports room, outdoor playing fields, are available for use by all women students.

No.	Title	Hour	Day	Bldg.	Instructor
1f,2w,3s, 4f,5w,6s*	College Program in Physical Education				

Aquatics

Canoeing (classes limited to 15)					
	Sec. 1 (spring)	III	MWF	58NGW	Ar
	2 (spring)	II	TThS	58NGW	Ar
Swimming, Beginning‡					
	Sec. 1 (fall)	II	MWF	51NGW	Ar
	2 (fall)	III	MWF	51NGW	Ar
	3 (winter, spring)	IV	MWF	51NGW	Ar
	4 (fall, spring)	VI	MWF	51NGW	Ar
	5 (fall, spring)	II	TThS	51NGW	Ar
	6 (fall, spring)	III	TThS	51NGW	Ar
Swimming, Advanced Beginning‡					
	Sec. 1 (fall)	IV	MWF	51NGW	Ar
	2 (winter)	VIII	MWF	51NGW	Ar

* Students must report to the Norris Gymnasium for Women on either of the first two days of the quarter to be placed in the proper class section. This is in addition to the regular registration.

‡ A physical education fee of \$1.75 per quarter is charged for this course.

§ For students with no experience in swimming.

¶ For students with some experience in swimming.

No.	Title	Hour	Day	Bldg.	Instructor
<i>Aquatics—Continued</i>					
1f,2w,3s, 4f,5w,6s*‡	College Program in Physical Education—Continued				
	Swimming, Intermediate				
	Sec. 1 (fall, spring)	VIII	MWF	51NGW	Ar
	2 (winter)	II	MWF	58NGW	Ar
	3 (spring)	II	MWF	58NGW	Ar
	Swimming, Intermediate and Advanced				
	Sec. 1 (fall)	III	MWF	58NGW	Ar
	2 (winter)	VIII	MWF	58NGW	Ar
	Swimming, Advanced (fall)				
		VIII	MWF	58NGW	Ar
	Swimming, Advanced and Diving (spring)				
		VI	MWF	58NGW	Ar
	Swimming, Advanced and Synchronized (spring)				
		VIII	MWF	58NGW	Ar
	Swimming, War Functional (fall)				
		II	MWF	58NGW	Ar
	Red Cross Life Saving (fall, spring)				
		IV	MWF	58NGW	Ar
	Preliminary Water Safety Instructors' Course (winter)§				
		VII	MWF	58NGW	Ar
	Water Safety Instructors' Course (spring)				
		VII	MWF	58NGW	Ar

Body Building

	Individual Body Building				
	Sec. 1 (fall, winter, spring)	IV	MWF	153ANGW	Ar
	2 (winter, spring)	III	TThS	153ANGW	Ar
	3 (fall, winter)	VI	MWF	153ANGW	Ar
	Posture and Conditioning Exercises				
	Sec. 1 (fall)	I	MWF	153NGW	Ar
	2 (fall)	III	MWF	153NGW	Ar
	3 (winter)	VIII	MWF	153NGW	Ar
	4 (spring)	VIII	MWF	151NGW	Ar

Individual Sports

	Archery, Elementary				
	Sec. 1 (fall)	III	MWF	60NGW	Ar
	2 (fall)	VI	MWF	60NGW	Ar
	3 (winter, spring)	II	TThS	60NGW	Ar
	4 (winter, spring)	III	TThS	60NGW	Ar
	Archery, Intermediate (spring)				
		VII	MWF	60NGW	Ar
	Badminton, Elementary				
	Sec. 1 (fall, winter)	II	MWF	60NGW	Ar
	2 (fall)	IV	MWF	60NGW	Ar
	3 (winter)	VI	MWF	60NGW	Ar
	4 (fall)	III	TThS	60NGW	Ar
	5 (winter)	VIII	MWF	60NGW	Ar
	6 (spring)	I	TThS	153NGW	Ar
	7 (spring)	VIII	MWF	153NGW	Ar
	Badminton, Intermediate				
	Sec. 1 (fall)	II	TThS	60NGW	Ar
	2 (winter)	IV	MWF	60NGW	Ar
	3 (spring)	I	MWF	60NGW	Ar

* Students must report to the Norris Gymnasium for Women on either of the first two days of the quarter to be placed in the proper class section. This is in addition to the regular registration.

‡ A physical education fee of \$1.75 per quarter is charged for this course.

§ This course covers the review required by the Red Cross for all candidates for the rank of water safety instructor.

PHYSICAL EDUCATION FOR WOMEN

No.	Title	Hour	Day	Bldg.	Instructor
<i>Individual Sports—Continued</i>					
1f,2w,3s, 4f,5w,6s*†	College Program in Physical Education—Continued				
	Fencing				
	Sec. 1 (fall)	IV	MWF	153NGW	Ar
	2 (winter)	III	TThS	153NGW	Ar
	3 (spring)	III	TThS	153NGW	Ar
	Golf, Elementary‡				
	Sec. 1 (fall)	VIII	MWF	60NGW	Ar
	2 (winter)	III	MWF	60NGW	Ar
	3 (spring)	III	MWF	60NGW	Ar
	Golf, Intermediate‡				
	Sec. 1 (spring)	VI	MWF	60NGW	Ar
	2 (spring)	VIII	MWF	60NGW	Ar
	Golf, Advanced (spring)‡				
		Ar	Ar	Ar	Ar
	Skating, Plain and Figure (winter)				
	Sec. 1	VI	TTh	151NGW	Ar
	2	VII	TTh	151NGW	Ar
	3	VIII	TTh	151NGW	Ar
	Tennis, Elementary and Intermediate				
	Sec. 1 (fall)	I	TThS	151NGW	Ar
	2 (fall)	VIII	MWF	151NGW	Ar
	3 (winter, spring)	IV	MWF	151NGW	Ar
	4 (spring)	I	MWF	151NGW	Ar
	5 (spring)	I	TThS	151NGW	Ar
	6 (spring)	VI	MWF	151NGW	Ar
	7 (spring)	III	TThS	151NGW	Ar
	Tennis, Intermediate and Advanced				
	Sec. 1 (winter)	III	MWF	151NGW	Ar
	2 (spring)	III	MWF	151NGW	Ar
	3 (spring)	II	TThS	151NGW	Ar
8‡‡	Horseback Riding (fall, spring)				
	Sec. 1 (Elementary)	VIII	MW	Ar	Ar
	2 (Elementary)	VIII	TTh	Ar	Ar
	3 (Intermediate and Advanced)				
		VII	MW	Ar	Ar
	4 (Intermediate and Advanced)	VII	TTh	Ar	Ar
<i>Rhythms</i>					
1f,2w,3s, 4f,5w,6s*†	College Program in Physical Education				
	Country Dance				
	Sec. 1 (fall)	II	TThS	151NGW	Ar
	2 (winter)	I	MWF	151NGW	Ar
	3 (spring)	II	MWF	153NGW	Ar
	National Dances				
	Sec. 1 (fall, winter)	II	MWF	153NGW	Ar
	2 (spring)	III	MWF	151NGW	Ar
	Modern Dance, Elementary				
	Sec. 1 (fall)	IV	MWF	151NGW	Ar
	2 (fall)	VI	MWF	153NGW	Ar
	3 (winter)	IV	MWF	151NGW	Ar
	4 (spring)	VII	MWF	151NGW	Ar
	Modern Dance, Intermediate (fall)				
		VII	MWF	151NGW	Ar

* Students must report to the Norris Gymnasium for Women on either of the first two days of the quarter to be placed in the proper class section. This is in addition to the regular registration.

† A physical education fee of \$1.75 per quarter is charged for this course.

‡‡ See instructor for special charge for this course. No course fee is charged.

‡ Students must supply their own equipment.

No.	Title	Hour	Day	Bldg.	Instructor
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Rhythms—Continued

1f,2w,3s.

4f,5w,6s*‡

College Program in Physical Education—Continued

Modern Dance, Intermediate and Advanced

Sec. 1 (winter)	VI	MWF	153NGW	Ar
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2 (spring)	VI, VII	T	151NGW	Ar
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	VI	Th	151NGW	Ar
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Modern Dance Composition (winter)

	VI, VII	M	151NGW	Ar
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	VII	W	151NGW	Ar
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Ballroom Dance, Elementary

Sec. 1 (fall)	III	TThS	151NGW	Ar
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2 (winter)	III	TThS	151NGW	Ar
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Team Sports

Basketball (winter)

Sec. 1	I	MWF	153NGW	Ar
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2	VIII	MWF	153NGW	Ar
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Softball (spring)

	IV	MWF	60NGW	Ar
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Volleyball

Sec. 1 (fall)	I	MWF	151NGW	Ar
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2 (fall, winter)	VI	MWF	151NGW	Ar
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Speedball (spring)

	II	MWF	60NGW	Ar
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Elective Courses

54s‡

Camp Leadership (2 cred.; no prereq.)

IV	MW	201NGW	Ar
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and 1 hr. ar.

80w

Principles of Rhythm (2 cred.; prereq. some rhythm experience)

II	WF	201NGW	Ar
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Recreational Activities for Which No Registration Is Required

Archery

Fencing

Tennis

Badminton

Modern Dance

Volleyball

Basketball

Softball

Exercises for Body Building

Swimming

* Students must report to the Norris Gymnasium for Women on either of the first two days of the quarter to be placed in the proper class section. This is in addition to the regular registration.

‡ A physical education fee of \$1.75 per quarter is charged for this course.

COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS

The College of Science, Literature, and the Arts distinguishes between Junior College courses, intended primarily for freshmen and sophomores, and Senior College courses, intended primarily for juniors and seniors.

Senior College courses appear in the announcement as open to "juniors and seniors" or to "juniors, seniors, and graduates."

Some Senior College courses are regularly open to Junior College students who have an average grade of at least C in the prerequisite courses. They are listed beneath the heading *Senior College Courses* in departmental statements in the Science, Literature, and the Arts section of this Combined Class Schedule Bulletin. Other Senior College courses are open to Junior College students only by special permission of the Students' Work Committee. The committee will usually grant such permission to students who have an average grade of at least C in all their work and in the prerequisite courses. Requests for the special permission should be presented to Assistant Dean Bussey in 106 Folwell Hall. Courses which carry graduate credit may not be taken earlier than the third quarter of the student's sophomore year.

ANATOMY (HUMAN)

MEDICAL SCHOOL

For complete list of courses, see the Bulletin of the Medical School.

Students in this college may elect courses in human anatomy other than Course 3 (see the Bulletin of the Medical School) only by arrangement with the head of the Department of Anatomy.

No.	Title	Hour	Day	Bldg.	Instructor
3f,w,s	Elementary Anatomy (3 cred.; primarily for nurses; no prereq.)				
<i>Schedule for 3f (Only Section D* is open to students not registered in the School of Nursing)</i>					
Lect.	Sec. 1	II	MW	Ar	Dr. Kirschbaum
	2	IV	T	Ar	Dr. Kirschbaum
		VI	F	Ar	Dr. Kirschbaum
Lab. and Rec.	Sec. A	VI, VII	T	Ar	Dr. Kirschbaum
	B	VIII, IX	T	Ar	and others
	C	VI, VII	T	Ar	
	D	I, II	Th	Ar	
	E	VIII, IX	Th	Ar	
<i>Schedule for 3w§ (Open only to students registered in the School of Nursing)</i>					
Lect.	Sec. A,B	II	MW	Ar	Dr. Kirschbaum
Lab. and Rec.	Sec. A	VIII, IX	T	Ar	Dr. Kirschbaum
	B	VIII, IX	Th	Ar	and others
<i>Schedule for 3s (Only Section D* is open to students not registered in the School of Nursing)</i>					
Lect.	Sec. C,D	I	TTh	Ar	Dr. Kirschbaum
Lab. and Rec.	Sec. C	VI, VII	T	Ar	Dr. Kirschbaum
	D	VIII, IX	Th	Ar	and others

* Students who cannot take Section D may possibly get permission to enter one of the other sections. They should ask for written permission in the office of the School of Nursing, 125 Medical Sciences Building.

§ Under auspices of United States Public Health Service.

ANTHROPOLOGY

Major adviser in the College of Science, Literature, and the Arts—Professor Wallis.

Major sequence in the College of Science, Literature, and the Arts—At least twenty-seven credits selected from the following: Anthropology courses numbered 80 or above, Zoology 83, 170-171.

(Prerequisites: Course 40, 41, or 42, with fifteen additional credits from either the social or biological sciences.)

Modifications of this sequence will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
40f,a	Introduction to Anthropology—Man's physical and cultural development; the nature and significance of race differences; ways of life in primitive society; applications of anthropology to modern life (5 cred.; no prereq.)	VI	MTWThF	209EdH	Mr. Wilford
41w	Introduction to Anthropology—Culture areas and culture traits (5 cred.; no prereq.)	VI	MTWThF	209EdH	Mr. Wallis
42	<i>The Growth of Cultures</i> —Man's first appearance in Old and New Worlds; earliest stages in the development of civilization; discovery and invention, the formation of cultural patterns, and the spread and adaptation of culture to various environments in Asia, Africa, the South Seas, and among the American Indians; changes in the arts, beliefs, and institutions of primitive communities as observed in recent times (5 cred.; no prereq.) (<i>Not offered</i>)				

Senior College Courses

Courses 54, 56, 80, 81 are open to sophomores who have a grade of at least C in Courses 40, 41, or 42. Other Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

54s	Social Organization—An analysis and survey of forms of social life (3 cred.; jr., sr.; no prereq.)	I	MWF	6WeH	Mr. Wallis
56f	Primitive Science—The beliefs and knowledge of primitive man (3 cred.; jr., sr.; no prereq.)	VII	MWF	6WeH	Mr. Wallis
80w	The American Indian—A survey of native cultures of the New World. Physical and cultural characteristics (3 cred.; jr., sr.; no prereq.)	IV	MWF	6WeH	Mr. Wallis
81w	Archeology of North America—Prehistory of the region, with special attention to northern Mexico and the United States (3 cred.; jr., sr.; no prereq.)	II	MWF	4WeH	Mr. Wilford

Of the courses listed below, those scheduled for Mr. Cline and Mr. Mandelbaum may not be given. Those two men were on leave of absence in 1943-44 and may still be on leave in 1944-45. Students should inquire before they register.

105f	Elements of Language—A survey of speech sounds followed by practice in phonetic recording. Analysis of phonetic patterns in language. Practical work in dictation of Chippewa, Dakota, Finnish, and other languages (3 cred.; jr., sr., grad.; no prereq.)	II	TThS	6WeH	Mr. Mandelbaum
106s	European Prehistory (3 cred.; jr., sr., grad.; no prereq.)	VII	MWF	6WeH	Mr. Wilford
110f	Physical Anthropology—Man's place in the animal kingdom. Comparison of man's structure with that of the anthropoid apes; types of prehistoric men; anthropometry (3 cred.; jr., sr., grad.; no prereq.)	II	MWF	6WeH	Mr. Wilford

20 COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS

No.	Title	Hour	Day	Bldg.	Instructor
116s	Indians of the Southwest—The pueblo dwellers, Navaho, Apache, and other aborigines of New Mexico and Arizona. The ancient civilizations of the region. (3 cred.; jr., sr., grad.; no prereq.)				
		I	TThS	6WeH	Mr. Mandelbaum
118w	Indian Civilizations of Mexico and Peru (3 cred.; jr., sr., grad.; no prereq.)				
		I	TThS	6WeH	Mr. Cline
119f	The Contact of Cultures—An examination of the ways in which customs change, especially as exemplified by the impact of Western civilization on native societies (3 cred.; jr., sr., grad.; no prereq.)				
		III	TThS	6WeH	Mr. Mandelbaum
120w	Indians of the Plains—The aboriginal inhabitants of the prairies and plains. The tribes which lived between the Upper Mississippi and the Rockies, from the forests of western Canada to Texas (3 cred.; jr., sr., grad.; no prereq.)				
		VII	MWF	6WeH	Mr. Wilford
122f-123w-124s	Problems in Anthropology (Cred. ar.; jr., sr., grad.; prereq. permission of instructor)	Ar	Ar	Ar	Mr. Wallis, Mr. Cline, Mr. Mandelbaum, Mr. Wilford
130f-131w-132s*	Races and Cultures of Arabia, Egypt, and North Africa—Course 130: Pre-Muslim Culture. Courses 131, 132: Muslim Culture (9 cred.; jr., sr., grad.; no prereq.)				
		III	MWF	6WeH	Mr. Cline
133f-134w*	Races and Cultures of the Far East—This course will focus on the growth of native civilization in China and Japan. Attention will be given also to the cultures of Mongolia, Tibet, Korea, and southeastern Asia, especially in their relation to the Chinese (6 cred.; jr., sr., grad.; no prereq.)				
		I	MWF	6WeH	Mr. Cline
135-136-137†	Cultural History of Egypt from the Earliest Times to the Sixteenth Century A.D. (The same as History 135-136-137) (9 cred.; jr., sr., grad.; prereq. permission of instructor and a B average in the student's major subject) (Not offered)				
140‡	Field Trip in Archeology (1 to 8 cred.; jr., sr., grad.; no prereq.)	Ar	Ar	Ar	Ar
150-151-152†	Selected Readings in Ancient History—Early cultures of the Mediterranean Basin (The same as History 150-151-152) (9 cred.; sr., grad.; prereq. consent of instructor) (Not offered)				
161s	Primitive Religion—Beliefs and practices in primitive religion. The role of the sacred and the supernatural. Beliefs in the life after death (3 cred.; jr., sr., grad.; no prereq.)				
		II	MWF	6WeH	Mr. Wallis
163w	Ethnology of India—A survey of the primitive tribes, Hindu caste society, and Mohammedan communities in India (3 cred.; jr., sr., grad.; no prereq.)				
		III	TThS	6WeH	Mr. Mandelbaum
165w	Psychological Phases of Culture—The interplay between culture and personality (3 cred.; jr., sr., grad.; no prereq.)				
		II	MWF	6WeH	Mr. Mandelbaum
166w	History of Anthropological Theory and Method—A review of the development of anthropology from early times to the present day. Schools of anthropological thought and various approaches to the data of anthropology (3 cred.; jr., sr., grad.; no prereq.)				
		II	TThS	6WeH	Mr. Mandelbaum
167s	Primitive Mythology—Plots and motives in folklore and mythology. Mythology as a reflection of culture and interests. Explanatory tales (3 cred.; jr., sr., grad.; no prereq.)				
		II	TThS	6WeH	Mr. Wallis
168	Ethnology of Australia—Physical types and cultures (3 cred.; jr., sr., grad.; no prereq.) (Not offered)				

* Students may enter any quarter.

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ This course may be taken for credit only once.

No.	Title	Hour	Day	Bldg.	Instructor
169w	Peoples of the South Seas—A survey of the native cultures of the Pacific Islands (3 cred.; jr., sr., grad.; no prereq.)	III	TThS	4WeH	Mr. Cline, Mr. Wilford
170s	Primitive Art—The role of esthetics in primitive life, the spread of art styles, symbolism. The graphic and plastic arts and the place of the artist. Music, drama, the dance, in primitive societies (3 cred.; jr., sr., grad.; no prereq.)	IV	MWF	6WeH	Mr. Mandelbaum

For Graduate Students Only

204f-205w-206s	Seminar in Anthropology (3 cred. per qtr.; grad.)	Ar	Ar	Ar	Mr. Wallis, Mr. Cline, Mr. Mandelbaum
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ARCHITECTURE

INSTITUTE OF TECHNOLOGY

Major adviser in the College of Science, Literature, and the Arts—Professor Roy Jones.

Major sequence in the College of Science, Literature, and the Arts—Courses AD-II, 51-52-53, 57-58-59.

(Prerequisites: Courses 4-5-6, AD-I, DP-I, DP-II†)

Modifications of this sequence will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

Junior College Courses

Note—Consult the Bulletin of the Institute of Technology for program of hours, days, buildings, and instructors.

1-2-3	Introduction to Architecture (3 cred.; open only to students whose major subject is architecture; no prereq.) (Not offered)
4-5-6f,w,s	Graphic Representation (5 cred.; no prereq. The whole Course 4-5-6 is given each quarter)
DP-If,w,s†§	Drawing and Painting, Grade I (6 cred., normally 2 cred. per qtr.; no prereq.)
DP-IIIf,w,s†§	Drawing and Painting, Grade II (6 cred., normally 2 cred. per qtr.; soph., jr., sr.; prereq. DP-I.)
M-If,w,s†§	Modeling, Grade I (6 cred., normally 2 cred. per qtr.; no prereq.)
AD-If,w,s††§	Architectural Design, Grade I (10 cred., normally 5 cred. per qtr.; soph., jr.; prereq. registration in 4-5-6)

Senior College Courses

Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

Note—Consult the Bulletin of the Institute of Technology for program of hours, days, buildings, and instructors, and for additional courses.

51f-52w-53s†	History of Architecture (The same as Fine Arts 51-52-53) (9 cred.; jr., sr.; no prereq.)
57f-58f,w-59w	Building Materials and Methods (6 cred.; jr., sr.; no prereq.)
61f-62w-63s	Tutorial Work in History of Architecture (The same as Fine Arts 61-62-63) (6 cred.; jr., sr.; prereq. 53)

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$1 per quarter is charged for this course.

†† A fee of \$2 per quarter is charged for this course.

§ Completion of this course is dependent on achievement rather than time. Students will continue their registration until the course is completed and a mark reported. The number of credits earned per quarter may be larger or smaller than the amount indicated as normal.

†† This course, DP-II, may be postponed until the student's junior year, if necessary.

No.	Title	Hour	Day	Bldg.	Instructor
67-68-69	<i>Theory of Design</i> (6 cred.; jr., sr.; no prereq.) (<i>Not offered</i>)				
104f	City Planning—General survey of the economic, governmental, social, and technical phases of city planning and group housing (The same as Economics 111, Political Science 124, and Sociology 104) (3 cred.; sr., grad.; no prereq.)				
110	<i>Architectural Acoustics</i> (2 cred.; sr.; no prereq.) (<i>Not offered</i>)				
DP-III ^{f,w,s} ‡	Drawing and Painting, Grade III (6 cred., normally 2 cred. per qtr.; jr., sr.; prereq. DP-II or equiv.)				
DP-IV ^{f,w,s} ‡	Drawing and Painting, Grade IV (6 cred.; normally 2 cred. per qtr.; jr., sr.; prereq. DP-III or equiv.)				
IHP-If‡	Illustration (2 cred., normally 2 cred. per qtr.; jr., sr.; prereq. DP-I or equiv.)				
IHP-II ^{w,s} ‡	Hand Print Processes (4 cred., normally 2 cred. per qtr.; jr., sr.; prereq. DP-I or equiv.)				
M-III ^{f,w,s} ‡	Modeling, Grade II (6 cred., normally 2 cred. per qtr.; jr., sr.; prereq. M-I)				
SD-If ^w ‡	Stage Design (4 cred., normally 2 cred. per qtr.; jr., sr.; no prereq.)				
AD-III ^{f,w,s} ‡‡	Architectural Design, Grade II (15 cred., normally 5 cred. per qtr.; jr., sr.; prereq. AD-I)				

ART

Courses relating to art (drawing, painting, modeling, design and appreciation, criticism, and history of art) are to be found in this bulletin under these five headings: Architecture, Art Education, Drawing, Fine Arts, and Home Economics.

ART EDUCATION

See Education, page 38.

ASTRONOMY

Major adviser in the College of Science, Literature, and the Arts—Professor Luyten.

Major sequence in the College of Science, Literature, and the Arts—Courses 51-52-53, 101, and Mathematics 50, 51, 105.

(Prerequisites: Mathematics 6-7, or Mathematics 6 and at least five credits in chemistry, geology, or physics.)

Modifications of this sequence will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

Junior College Courses

11f*	Descriptive Astronomy (5 cred.; no prereq.)	IV	MTWF	133Ph	Mr. Luyten
		and one evening a week with the telescope, weather permitting			
11a*	Descriptive Astronomy (5 cred.; no prereq.)	IV	MTWF	133Ph	Mr. Luyten
		and one evening a week with the telescope, weather permitting			
20f ^{t,w} ‡s‡	Astronomy for Celestial Navigation (5 cred.; no prereq.)	III	MTWF	358Ph	Mr. Luyten
		and one 3-hour laboratory period to be arranged			

* No student may receive credit for both Course 11 and Course 51.

‡ A fee of \$1 per quarter is charged for this course.

‡‡ A fee of \$2 per quarter is charged for this course.

‡ Completion of this course is dependent on achievement rather than time. Students will continue their registration until the course is completed and a mark reported. The number of credits earned per quarter may be larger or smaller than the amount indicated as normal.

Senior College Courses

Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

No.	Title	Hour	Day	Bldg.	Instructor
51w*	Astronomy (3 cred.; jr., sr.; prereq. Math. 6)	IV§	MWF§	133Ph§	Mr. Luyten
52w	Astrophysics (4 cred.; prereq. 51 or 11 and Math. 6)	II§	MTWF§	Ar§	Mr. Luyten
53a	Stellar Astronomy (3 cred.; prereq. 51 or 11 and Math. 6)	II§	MWF§	Ar§	Mr. Luyten
101f	Celestial Mechanics (3 cred.; jr., sr., grad.; prereq. Math. 51)	II§	MWF§	Ar§	Mr. Luyten
140f	Least Squares (3 cred.; prereq. 51 or 11 and at least Math. 51)	II§	MWF§	Ar§	Mr. Luyten

NOTE—Courses 101 and 140 are usually offered in alternate years, and only one will be given in each year, depending largely on the demand.

BACTERIOLOGY

MEDICAL SCHOOL

Major adviser in the College of Science, Literature, and the Arts—Dr. Larson.

Major sequences in the College of Science, Literature, and the Arts—Sequence A.

For work in medical or public health bacteriology, Courses 101-102, 104, 114, 116, 120, 124, and Zoology 51.

(Prerequisites: Zoology 1-2-3 and 10 credits in chemistry.)

Sequence B. For work in industrial bacteriology, Courses 53, 103, 104, 114, 121-122, 123.

(Prerequisites: 4 credits in botany or zoology; 15 credits in chemistry; and 8 credits in biochemistry or organic chemistry.)

Modifications of these sequences will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

1f	Elements of Bacteriology (Exclusively for students in the three-year curriculum in Nursing) (4 cred.; no prereq.)				
	Lect.	III	TThS	MH	Ar
	Lab. Secs. A, B	I	MWF	MH	Ar
	C, D	I	TThS	MH	Ar
	E	IV	MWF	MH	Ar
1a	Elements of Bacteriology (Exclusively for students in the three-year curriculum in Nursing) (4 cred.; no prereq.)				
	Lect.	III	MWF	MH	Ar
	Lab.	IV	MWF	MH	Ar

Senior College Courses

Course 53 is open to Junior College students who have a grade of at least C in the prerequisite courses. Other Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

* No student may receive credit for both Course 11 and Course 51.

§ No student should register for this course without first consulting Professor Luyten.

No.	Title	Hour	Day	Bldg.	Instructor
53f,w,s††	General Bacteriology (5 cred.; soph. with a C average in the prerequisite courses, jr., sr.; prereq. 10 cred. in chem. and 4 cred. in bot. or zool.)	VII, VIII, IX	MWF	MH	Ar
101‡‡‡	Medical Bacteriology (5 cred.; jr., sr., grad.; prereq. Zool. 1-2-3 and 10 cred. in chem.)				Dr. Evans
102‡‡	Medical Bacteriology (4 cred.; jr., sr., grad.; prereq. 101)				Dr. Larson, Dr. Green
103s	Soil Microbiology (5 cred.; jr., sr., grad.; prereq. 53, and 15 cred. in chem.)	II, III, IV		TS MH	Dr. Skinner
104w	Sanitary Bacteriology (4 cred.; jr., sr., grad.; prereq. 53 and 15 cred. in chem.) (Class limited to 15 students)	II, III		Th	
114s	Molds, Yeasts, and Actinomycetes (4 cred.; jr., sr., grad.; prereq. 53 or 101)	VI, VII	MWF	MH	Dr. Skinner
116w	Immunity (3 cred.; jr., sr., grad.; prereq. 102)	VII, VIII, IX	TTh	MH	Dr. Larson
120s	Diseases of Animals Transmissible to Man (3 cred.; jr., sr., grad.; prereq. 102)	VII, VIII	TTh	MH	Dr. Skinner
121f-122w†	Physiology of Bacteria (6 cred.; jr., sr., grad.; prereq. Bact. 53 and 8 cred. in org. chem. or biochem.)	III, IV		S MH	
123s	Applied Bacteriology (3 cred.; jr., sr., grad.; prereq. 121-122)	VI	MWF	MH	Dr. Green, Dr. Evans
124f	Filterable Viruses (4 cred.; jr., sr., grad.; prereq. 102)	III	TThS	MH	Dr. Halvorson
	Lect.	III	TThS	MH	Dr. Halvorson
	Lab.	VI	TTh	MH	Dr. Green
		VII, VIII	TTh	MH	Dr. Evans

BIOSTATISTICS

See Public Health, page 94.

BOTANY

Major adviser in the College of Science, Literature, and the Arts—Associate Professor Abbe.

Major sequences in the College of Science, Literature, and the Arts—

A. In Botany, 27 credits in Senior College courses in botany, including Courses 50, 51, 52, 53, and 54.

B. In special fields, such as morphology, taxonomy, physiology, or ecology, a major will consist of the respective courses with numbers over 100 and additional approved courses to make a total of 27 credits in Senior College courses.

(Prerequisites: For sequences A and B: Courses 1-2-3 or 4-5, a beginning course in general chemistry and either Principles of Genetics (Agron. and Plant Genetics 31) or Plant Pathology (Plant Path. and Bot. 1). If possible at least one year of French or German should be completed as part of the Junior College work.)

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ Microscope required. Students may obtain use of microscope by purchasing \$1.50 microscope card from bursar.

§ For the duration of the war, the schedule for this course is uncertain. Students wishing to take it should consult the department, 228 Millard Hall.

¶ No student may receive credit for both Course 53 and Course 101.

Modifications of these sequences will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

Major adviser in the College of Education—Professor Butters.

Requirements for a teacher's certificate—Major recommendation: Courses 1-2-3 or 4-5, 10, 12, 50, 51, 52, 53, 54.

Minor recommendation: Courses 1-2-3 or 4-5, 10, 12, and three additional credits.

For a specialized curriculum in natural science see the Bulletin of the College of Education.

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
1f‡-2w†-3s*‡	General Botany (10 cred.; no prereq.)				
	Lect. Sec. 1	III	TTh	BoAud	Mr. Huff
	2	VI	TTh	BoAud	Mr. Abbe
	Lab. Sec. 1 (Limited to 100)	III, IV	WF	4,5Bo	Ar
	2 (Limited to 100)	VI, VII	WF	4,5Bo	Ar
	3 (Limited to 100)	VII, VIII	TTh	4,5Bo	Ar
4w†-5s*‡	General Botany (10 cred.; no prereq.)				
	Lect.	II	MWF	BoAud	Mr. Sharsmith
	Lab.	I, II	TThS	4,5Bo	Ar
10s‡	Minnesota Plant Life (3 cred.; no prereq.)				
	Lect.	VI	W	BoAud	Mr. Huff
		VI, VII	F	BoAud	Mr. Huff
	Lab.	VI, VII	M	4,5Bo	
12f‡	Plants Useful to Man (3 cred.; no prereq.)	VII	MWF	5Bo	Mr. Sharsmith

Senior College Courses

Courses 50, 51, 52, 53, 54 are open to sophomores who have an average grade of at least C in Course 1-2-3 or 4-5. Other Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

50f‡	General Plant Ecology (3 cred.; jr., sr.; prereq. 1-2-3 or 4-5)				
	Lect.	VI	TTh	214Bo	Mr. Cooper
	Lab.	VII, VIII	TTh	214Bo	
51w‡	General Plant Physiology (3 cred.; jr., sr.; prereq. 1-2-3 or 4-5 and one quarter of general chemistry)				
	Lect.	VI	TTh	110Bo	Mr. French
	Lab.	VII, VIII	TTh	104Bo	
52s‡	Elementary Taxonomy (3 cred.; jr., sr.; prereq. 1-2-3 or 4-5)				
	Lect.	VI	MW	110Bo	Mr. Sharsmith
	Lab.	VII, VIII	MW	110Bo	
53f‡	Morphology of Thallophytes and Bryophytes (3 cred.; jr., sr.; prereq. 1-2-3 or 4-5)				
		I, II	MWF	8Bo	Mr. Huff
54w‡	Morphology of Pteridophytes and Spermatophytes (3 cred.; jr., sr.; prereq. 1-2-3 or 4-5)				
		I, II	MWF	8Bo	Mr. Huff
108w	Pteridophytes (5 cred.; sr., grad.; prereq. 54)				
		Ar	Ar	Ar	Mr. Butters
110	<i>Gymnosperms</i> (5 cred.; sr., grad.; prereq. 54) (<i>Not offered</i>)				

* Any student who has had Course 1 given in 1942-43 and earlier years should register for 2-3. If he has had additional courses he should consult the Department of Botany before registering for any other course. He may be permitted to take any one of Courses 50, 51, 52, 53, 54.

‡ A fee of \$1 is charged for this course.

§ This course does not satisfy any part of the laboratory science requirement of the College of Science, Literature, and the Arts.

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No.	Title	Hour	Day	Bldg.	Instructor
113f-114w-115a*	Advanced Taxonomy of Flowering Plants (9 cred.; jr., sr., grad.; prereq. 52 or consent of instructor)		VI, VII, VIII TTh	202Bo	Mr. Sharsmith
117	<i>Floristic Plant Geography</i> (5 cred.; jr., sr., grad.; prereq. 52 or consent of instructor) (Not offered)				
118†	<i>Cytology I—Cytoplasmic Phenomena</i> (3 cred.; jr., sr., grad.; prereq. 1-2-3 or 4-5) (Not offered)				
119f†	<i>Cytology II—Nuclear Phenomena</i> (3 cred.; jr., sr., grad.; prereq. 1-2-3, or 4-5 and an elem. course in genetics)				
120w††	Research Methods in Histology and Cytology (3 or 5 cred.; jr., sr., grad.; prereq. 1-2-3 or 4-5 and consent of instructor)	III-IV	MWF	202Bo	Mr. Abbe
	Lect.	III	MWF	Ar	Mr. Abbe
	Lab.	Ar	Ar	Ar	
121†	<i>Morphogenesis</i> (3 cred.; jr., sr., grad.; prereq. 1-2-3 or 4-5 and consent of instructor) (Not offered)				
122†	<i>Structure and Development of Crop Plants</i> (3 cred.; jr., sr., grad.; prereq. 1-2-3 or 4-5) (Not offered)				
127f	Anatomy of Vascular Plants (5 cred.; jr., sr., grad.; prereq. 1-2-3 or 4-5)				
	Lect.	II	TThS	202Bo	Mr. Butters
	Lab.	III, IV	TS		
		III	Th		
		or			
		Ar	Ar		
131	<i>Field Ecology</i> (5 cred.; jr., sr., grad.; prereq. 50 or For. 2, 3, 4) (Not offered)				
132w†	<i>Ecological Morphology</i> (5 cred.; jr., sr., grad.; prereq. 50, 53, 54)		VI, VII, VIII MWF	214Bo	Mr. Cooper
133s	<i>Plant Geography of North America</i> (5 cred.; jr., sr., grad.; prereq. 50 or For. 2, 3, 4)		VI, VII, VIII MWF	214Bo	Mr. Cooper
134†	<i>Research Methods in Ecology</i> (5 cred.; jr., sr., grad.; prereq. 18 cred. in pl. sci. incl. 50) (Not offered)				
137†	<i>Experimental Ecology</i> (5 cred.; jr., sr., grad.; prereq. 18 cred. in pl. sci. incl. 50, 51) (Not offered)				
140	<i>Advanced Survey of Plant Physiology</i> (3 cred.; jr., sr., grad.; prereq. 51 or equiv.) (Not offered)				
141f	Physicochemical Principles and Measurements in Plant Physiology (3 cred.; jr., sr., grad.; prereq. 20 cred. in chem. or biochem.)				
	Lect.	8:00-9:20	TTh	110Bo	Mr. French
	For laboratory see 146.				
142w	Photosynthesis and Other Effects of Radiation (3 cred.; jr., sr., grad.; prereq. same as for 141)				
	Lect.	8:00-9:20	TTh	110Bo	Mr. Burr
	For laboratory see 147.				
143s	Plant Metabolism (3 cred.; jr., sr., grad.; prereq. same as for 141)				
	Lect.	8:00-9:20	TTh	110Bo	Mr. French
	For laboratory see 148.				
146f††, 147w††, 148s††	Advanced Physiology Laboratory (2 cred. per qtr.; jr., sr., grad.; to be taken with or after 141, 142, 143 respectively)				
		II, III, IV	T	110Bo	Mr. French
		II, III	Th		
		or			
		Ar	Ar		
154f††	Spectroscopy and Photochemistry Applied to Biology (3 to 5 cred.; jr., sr., grad.; prereq. 20 cred. in chem. or biochem.)				
	Lect.	VI	MW	110Bo	Mr. French
	Lab.	VII, VIII, IX	MW		

* Any quarter may be taken separately, except 115s, which requires either 113f or 114w as a prerequisite.

† A fee of \$1 is charged for this course.

†† A fee of \$3 is charged for this course.

No.	Title	Hour	Day	Bldg.	Instructor
197f†-198w†- 199s†	Problems (1 to 5 cred. per qtr.; jr., sr., grad.; prereq. 20 cred. in pl. sci. and permission of instructor)				
		Ar	Ar	Ar	Ar

For graduate courses given during 1944-45 consult the department.

PLANT PATHOLOGY AND BOTANY AND AGRONOMY
AND PLANT GENETICS

Students in this college may elect courses in "Plant Pathology and Botany" and "Agronomy and Plant Genetics" by arrangement with the departments. See the program of the College of Agriculture, Forestry, and Home Economics in this bulletin.

CHEMISTRY

INSTITUTE OF TECHNOLOGY

Major adviser in the College of Science, Literature, and the Arts—Professor Sneed.

Major sequence in the College of Science, Literature, and the Arts—Analytical Chemistry 1-2; Organic Chemistry 54-55-156, 57-58-159; Physical Chemistry 101-102-103.

(Prerequisites: Inorganic Chemistry 13 with its prerequisites; a year of college physics; mathematics through differential and integral calculus which need not be completed until the end of the student's junior year.)

Modifications of this sequence will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

Major adviser in the College of Education—Professor Palmer O. Johnson.

Requirements for a teacher's certificate—Major recommendation: Inorganic Chemistry 9-10, 12; Analytical Chemistry 7; Organic Chemistry 54-55, 57-58 and 10 additional credits in chemistry.

Minor recommendation: Inorganic Chemistry 9-10, 12; Analytical Chemistry 7 and 6 additional credits in chemistry.

For a specialized curriculum in natural science see the Bulletin of the College of Education.

Note—Analytical Chemistry 1-2 and all courses numbered above 50 count as Senior College courses.

INORGANIC CHEMISTRY

1f††-2w†††	General Inorganic Chemistry (4 cred. per qtr.; no prereq.; for architecture, pre dental, premedical, medical technology, physical education for women, agriculture, forestry, and home economics students)				
	Lect.	VI	MWF	100C	Mr. Barber
	Quiz	VII	WF	Ar	
	Lab.	VII, VIII, IX	M	210C	

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

† A fee of \$1 is charged for this course.

†† A fee of \$2 per quarter is charged for this course. The student should purchase a \$5 chemistry deposit card from the bursar, in the Administration Building. No student will be assigned a desk in the laboratory until he presents this card. The \$2 course fee, laboratory material, and breakage will be charged against the deposit.

No.	Title	Hour	Day	Bldg.	Instructor
3s*†††	Semimicro Qualitative Analysis (4 or 5† cred.; prereq. 2)				
	Lect.	VI	MWF	100C	Mr. Barber
	Lab.†	VII, VIII, IX	MW	210C	
4f†-5w††	General Inorganic Chemistry (8 cred.; primarily for preidental, premedical, medical technology, nursing education, and public health nursing students; prereq. entrance cred. in chem.)				
	Lect.	VII	MWF	100C	Mr. Maynard
	Quiz	VI	Th	100C	
	Lab.	VII, VIII, IX	Th	290C	
4f†-5w††	General Inorganic Chemistry (8 cred.; for agriculture, forestry, and home economics students; prereq. entrance cred. in chem.)				
	Lect.	VII	MWF	225C	Mr. Klug
	Quiz	Ar	Ar	100C	
	Lab.	VIII, IX	MW	110C	
6f†-7w††	General Inorganic Chemistry (10 cred.; no prereq. A continuation of this course is 12s)				
	Lect.	II	MWF	325C	Miss Cohen
	Quiz	I	Th	410C	
	Lab. Sec. 1	I, II	TS	290C	
		II	Th	290C	
	2	II, III	Th	290C	
		I, II, III	T	290C	
9f†-10w††	General Inorganic Chemistry (10 cred.; prereq. entrance cred. in chem.)				
	Lect.	III	MWF	325C	Mr. Pervier
	Lab.	VI, VII	MWF	210C	
9w†-10s†††	General Inorganic Chemistry (10 cred.; prereq.** entrance cred. in chem.)				
	Lect.	Ar	Ar	Ar	Mr. Heisig
	Quiz	Ar	Ar	Ar	
	Lab.	Ar	Ar	Ar	
10f†	General Inorganic Chemistry (2nd qtr. of 9-10. See 9f-10w)				
	Lect.	II	MWF	100C	Mr. Sneed
	Lab. Sec. 1	I, II	TThS	290C	
	2	I, II, III	ThS	290C	
11f*††	Semimicro Qualitative Analysis (4 cred.; primarily for premedical and preidental students; prereq. Course 2 or 5)				
	Lect.	IV	MWF	225C	Mr. Pervier
	Lab.	VI, VII, VIII, IX	F	210C	
11s*††	Semimicro Qualitative Analysis (4 cred.; for premedical, preidental, and medical technology students; prereq. 2 or 5)				
	Lect.	VII	MWF	225C	Mr. Maynard
	Lab.	VI, VII, VIII, IX	Th	290C	
11s*††	Semimicro Qualitative Analysis (4 cred.; for agriculture, forestry, and home economics students; prereq. 2 or 5)				
	Lect.	VII	MWF	225C	Mr. Klug
	Lab.	VIII, IX	MW	210C	
12w*††	Semimicro Qualitative Analysis (5 cred.; prereq. 7 or 10)				
	Lect. (For those who have completed Course 10)	II	MWF	100C	Mr. Sneed
	Lab.	I, II, III	ThS	290C	

* Courses 3 and 11 are substantially equivalent. Either may be substituted for the other. Course 12 may be substituted for Course 3 or Course 11 by students who have completed Courses 6-7 or 9-10. No student may receive credit for more than one of Courses 3, 11, 12.

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$2 per quarter is charged for this course. The student should purchase a \$5 chemistry deposit card from the bursar, in the Administration Building. No student will be assigned a desk in the laboratory until he presents this card. The \$2 course fee, laboratory material, and breakage will be charged against the deposit.

‡‡ A fee of \$2.40 per quarter is charged for this course. The student should purchase a \$5 chemistry deposit card from the bursar, in the Administration Building. No student will be assigned a desk in the laboratory until he presents this card. The \$2.40 course fee, laboratory material, and breakage will be charged against the deposit.

§ Students who have failed in 1f, 4f, 6f, or 9f may register for this course without further prerequisite.

¶ Six hours of laboratory are required if the course is taken for 5 credits, four hours if it is taken for 4 credits.

** Students who have not had high school chemistry may take this course, but they will be required to attend one extra lecture each week.

No.	Title	Hour	Day	Bldg.	Instructor
12s*††	Semimicro Qualitative Analysis (See 12w)	II	MWF	111C	Miss Cohen
	Lect.			210C	
	Lab.	I, II or I, II, III	TThS	210C	
13f††	Semimicro Qualitative Analysis (5 cred.; prereq. 12)	Ar	Ar	Ar	Ar
	Lect.	Ar	Ar	Ar	Ar
13s††	Semimicro Qualitative Analysis (See 13f)	VI	MW	325C	Mr. Heisig
	Lect.	VI	F	325C	
	Quiz	VII, VIII, IX	WF	290C	
	Lab.	VII, VIII	M	290C	
101a	History of Chemistry (2 cred.; sr., grad.; prereq. Org. Chem. 52 or consent of instructor)	IV	T	111C	Miss Cohen
		and one hr. ar.			
102s††	Semimicro Qualitative Analysis (3 cred.; jr., sr., grad.; prereq. Anal. Chem. 1-2)	Ar	Ar	290C	Mr. Barber
103f	The Chemistry of the Solid State (3 cred.; jr., sr., grad.; prereq. Anal. Chem. 1-2, Org. Chem. 55)	III	TThS	215C	Mr. Klug
104w	Atomic Structure and the Chemical Bond (3 cred.; jr., sr., grad.; prereq. Anal. Chem. 1-2, Org. Chem. 52)	II	TThS	115C	Mr. Reyerson
105a	Co-ordination Compounds (3 cred.; jr., sr., grad.; prereq. Anal. Chem. 1-2, Org. Chem. 52)	II	TThS	115C	Mr. Maynard
109w‡-110s‡	Synthetic Inorganic Chemistry (3 to 5 cred. per qtr.; jr., sr., grad.; prereq. Org. Chem. 54)	Ar	Ar	Ar	Mr. Heisig
117s††	Glass Blowing (1 cred.; jr., sr., grad.; no prereq.)	Ar	Ar	10C	Ar

For other courses in Inorganic Chemistry see the Bulletin of the Institute of Technology.

ANALYTICAL CHEMISTRY

1f†-2w††	Quantitative Analysis (10 cred.; soph., jr., sr.; prereq. Inorg. Chem. 13)	VI	M	325C	Mr. Geiger
	Lect.	VI	F	410C	
	Quiz	VI	W	111C	
	Rec.	VI or VII			
	Lab. Sec. 1 Any 9 hrs.				
	selected from	VI-IX	MWF	310C	
	2 (fall)	I-IV	T	310C	
		I-III	Th	310C	
		I-II	S	310C	
	2 (winter)	I-IV	T	310C	
		VII-IX	T	310C	
		I-II	S	310C	

* Courses 3 and 11 are substantially equivalent. Either may be substituted for the other. Course 12 may be substituted for Course 3 or Course 11 by students who have completed Courses 6-7 or 9-10. No student may receive credit for more than one of Courses 3, 11, 12.

† A fee of \$2 per quarter is charged for this course. The student should purchase a \$5 chemistry deposit card from the bursar, in the Administration Building. No student will be assigned a desk in the laboratory until he presents this card. The \$2 course fee, laboratory material, and breakage will be charged against the deposit.

‡ Carries credit only for juniors and seniors majoring in natural science.

†† Course 2w may precede 1f, if desired.

‡‡ A fee of \$2.40 per quarter is charged for this course. The student should purchase a \$5 chemistry deposit card from the bursar, in the Administration Building. No student will be assigned a desk in the laboratory until he presents this card. The \$2.40 course fee, laboratory material, and breakage will be charged against the deposit.

No.	Title	Hour	Day	Bldg.	Instructor
7f‡	Quantitative Analysis (4 cred.; primarily for premedical students; prereq. any course in qualitative chemistry)				
	Sec. 1 and 2				
	Lect.	VI	F	325C	Mr. Geiger
	Rec. (Limit 35 in each sec.)	VI or VII	W	111C	
	Quiz	VI	M	410C	
	Lab. Any other 8 hrs. selected from	VI-IX	MWF	310C	
	Sec. 3				
	Lect.	VI	T	325C	Mr. Sandell
	Rec.	VI	Th	325C	
	Lab.	VII, VIII, IX	TTh	310C	
		I, II, III	S	310C	
		or			
		II, III, IV	S	310C	
7s‡	Quantitative Analysis (4 cred.; primarily for premedical students; prereq. any course in qualitative chemistry)				
	Lect.	VI	T	325C	Mr. Sandell
	Rec.	VI	Th	325C	
	Lab.	VII, VIII, IX	TTh	310C	
		I, II, III	S	310C	
		or			
		II, III, IV	S	310C	
103w‡	Quantitative Inorganic Microanalysis (3 cred.; jr., sr., grad.; prereq. Anal. Chem. 1-2)				
	Ar	Ar	Ar	Ar	Mr. Sandell
104f‡	Microchemistry (3 cred.; jr., sr., grad.; prereq. Anal. Chem. 1-2)				
	Ar	Ar	Ar	Ar	Mr. Sandell
122f‡	Advanced Analytical Chemistry—A condensed review of modern fundamentals of gravimetric and volumetric analysis (1 to 2 cred.; jr., sr., grad.; prereq. quantitative chemistry; 1 lecture, 1 recitation, and 3 to 6 laboratory hours to be arranged)				
	Ar	Ar	Ar	Ar	Mr. Geiger
131f‡	Application of Indicators (3 cred.; jr., sr., grad.; prereq. Anal. Chem. 1-2 and Phys. Chem. 103)				
	Lect.	VI	MW	315C	Mr. Kolthoff
	Lab.	Ar	Ar	Ar	
132w‡	Electrometric Titrations (3 cred.; jr., sr., grad.; prereq. Anal. Chem. 1-2 and Phys. Chem. 103)				
	Lect.	VI	MW	315C	Mr. Kolthoff
	Lab.	Ar	Ar	Ar	
140w‡	Water Analysis (2 cred.; jr., sr., grad.; prereq. Anal. Chem. 1-2)				
	Ar	Ar	Ar	Ar	Mr. Sandell

ORGANIC CHEMISTRY

1f‡-2w†‡	Elementary Organic Chemistry—Discussion of important classes of organic compounds, both aliphatic and aromatic—Laboratory work includes the preparation of typical substances (8 cred.; for premedical, pre dental and pharmacy students; prereq. Inorg. Chem. 11 or equiv.)				
	Lect.	I	MWF	100C	Mr. Arnold
	Lab. conference	II	T	325C	Mr. Arnold
	Quiz	I	T	Ar	Ar
	Lab. Sec. 1	VI-IX	T	390C	
	2	VI-IX	W	390C	
	3	I-IV	S	390C	

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$2 per quarter is charged for this course. The student should purchase a \$5 chemistry deposit card from the bursar, in the Administration Building. No student will be assigned a desk in the laboratory until he presents this card. The \$2 course fee, laboratory material, and breakage will be charged against the deposit.

No.	Title	Hour	Day	Bldg.	Instructor
1w†-2st†	Elementary Organic Chemistry (See 1f-2w)				
	Lect.	IV	MWF	100C	Mr. Koelsch
	Lab. conference	V	T	100C	Mr. Koelsch
	Quiz	IV	T	410C	Ar
	Lab. Sec. 1	VI-IX	W	390C	
	2	VI-IX	Th	390C	
	3	I-IV	S	390C	
54w-55st- 156f*	Elementary Organic Chemistry, Lecture Course—Discussion of important classes of organic compounds, both aliphatic and aromatic, together with some heterocyclic compounds (3 cred. per qtr.; open to all except premedical, preidental, and pharmacy students; prereq. 15 cred. in college chemistry. Course 153 is prerequisite to all other advanced courses in organic chemistry)				
	Lect.	III	MWF	100C	Mr. Lauer(w,s) Mr. Smith(f)
	Quiz	III	Th	325C	
57w†-58st†- 159f†*	Elementary Organic Chemistry, Laboratory Course—Preparation of typical substances; some original work (2 cred. per qtr.; must be accompanied or preceded by the corresponding quarter of 54-55-156. Course 156 is prerequisite to all other advanced courses in organic chemistry)				
	Lab. conference	III	S	325C	Mr. Arnold
	Lab. Sec. 1	II, III, IV	T	390C	Mr. Smith
		VI, VII, VIII	T	390C	
	2	VI, VII, VIII	TTh	390C	Mr. Lauer
96f†-97w†-98st	Senior Thesis—This course may be taken with any member of the Organic Chemistry Division staff (5 cred. per qtr.; sr.)		Ar	Ar	Ar
105f-106w-107s	Advanced Organic Chemistry—Advanced descriptive course covering the field of organic chemistry, together with an introduction to the literature of organic chemistry—Lectures and outside reading—Ability to read German is assumed (3 cred. per qtr.; jr., sr., grad.; prereq. 156 and 159 or equiv.)				
		I	MWF	325C	Mr. Smith
110f††	Organic Qualitative Analysis—Reactions of typical functional groups, identification of pure organic compounds, separation and identification of constituents of mixtures (5 cred.; prereq. 156 and 159 or equiv.)				
	Lect.	2 hrs. ar	Ar	315C	Mr. Arnold
	Lab.	9 hrs. ar	Ar	Ar	
130st	Organic Quantitative Analysis—Methods of proximate and ultimate analysis of organic compounds, with special attention to semimicro methods (2 or 3 cred.; prereq. 156 and 159 and Anal. Chem. 1 and 2)				
	Lect.	1 hr. ar	Ar	Ar	Mr. Lauer
	Lab.	3 or 6 hrs. ar	Ar	Ar	
139f,w,st	Advanced Organic Chemistry Laboratory Work—Selected laboratory problems of an advanced nature, including some original work (2 to 5 cred.; prereq. 156 and 159. Ability to read German is assumed. Students are advised to take this course during the winter quarter. Permission of instructor is required to take it at any other time)		Ar	Ar	Mr. Arnold
140	Aromatic Compounds—Discussion of the chemistry of typical aromatic compounds including derivatives of benzene, naphthalene, anthracene, phenanthrene, and other polynuclear hydrocarbons, together with a consideration of certain heterocyclic compounds which show aromatic character. The properties of these compounds will be illustrated by examples chosen from the sterols and the alkaloids (3 cred.; prereq. 156 and 159) (Not offered—offered in alternate years)				

* Courses 54-57, 55-58, and 156-159 take the place of the Course 51-52-153 which was offered in previous years.

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$2 per quarter is charged for this course. The student should purchase a \$5 chemistry deposit card from the bursar, in the Administration Building. No student will be assigned a desk in the laboratory until he presents this card. The \$2 course fee, laboratory material, and breakage will be charged against the deposit.

†† A charge of \$10 is made to cover special chemicals in this course.

No.	Title	Hour	Day	Bldg.	Instructor
141f	Reagents in Organic Chemistry—Discussion of typical reagents used in organic reactions; their limits of applicability, methods of use, and types of substances with which they react (3 cred.; prereq. 156 and 159)	IV	MWF	315C	Mr. Koelsch
142-143	<i>The Chemistry of Natural Products</i> —Discussion of the organic chemistry of important classes of natural products (3 cred. per qtr.; prereq. 156 and 159) (<i>Not offered—offered in alternate years</i>)				
156f	Elements of Organic Chemistry (See Organic Chemistry 54w-55s-156f)				
159f	Elements of Organic Chemistry, Laboratory Course (See Organic Chemistry 57w-58s-159f)				
201f-202w-203s	Organic Chemistry Seminar (1 cred. per qtr.) (Required of all students taking graduate work in organic chemistry)	1 hr. per week	Ar	Ar	Mr. Smith, Mr. Koelsch, Mr. Lauer, Mr. Arnold
205-206	<i>Theoretical Organic Chemistry</i> —Structure, reaction mechanisms, relation of physical properties to constitution, and other topics of a theoretical nature (3 cred. per qtr.; prereq. 107) (<i>Not offered—offered in alternate years</i>)				
212a	Physico-Organic Chemistry—Contributions made to organic chemistry by kinetic and equilibrium studies of organic reactions, including mechanisms of catalytic and ionotropic reactions; and an introduction to the current electronic formulations of organic reactions. Lectures, outside reading, and a term paper are required (4 cred.; prereq. 107, Phys. Chem. 103, and calculus, or permission of instructor)	Ar	Ar	Ar	Mr. Arnold
301f-302w-303s	Research in Organic Chemistry (Cred. ar.; prereq. 110)	Ar	Ar	Ar	Mr. Smith, Mr. Lauer, Mr. Koelsch, Mr. Arnold

PHYSICAL CHEMISTRY

101w-102s-103f	Physical Chemistry—A general survey of the subject (9 cred.; jr., sr., grad.; prereq. two years college chemistry, one year college physics, and mathematics through differential and integral calculus)	Lect. Rec.	IV IV	MWF S	325C 325C	Mr. MacDougall
104w†-105s†	Physical Chemistry Laboratory (To accompany or follow Course 101-102-103) (1 or 2 cred. per qtr.)		VI, VII, VIII	MW	190C	
107s†	Elementary Physical Chemistry (6 cred.; for premedical students only; prereq. two years college chemistry, one year college physics)	Lect. Rec. Lab.	III VIII Ar	MWFS T Ar	225C ArC 190C	Mr. Crawford
116f-117w-118s	Advanced Physical Chemistry (9 or 12 cred.; jr., sr., grad.; prereq. 103 and calculus)		IV	MWF	215C	Mr. Crawford
128f-129w-130s	Colloid Chemistry (2 cred. per qtr.; sr., grad.; prereq. 103)		Ar	Ar	ArC	Mr. Reyerson
131f†-132w†	Colloid Chemistry Laboratory (Cred. ar.; sr., grad.; prereq. 129 or 130)		Ar	Ar	Ar	Mr. Reyerson

† A fee of \$2 per quarter is charged for this course. The student should purchase a \$5 chemistry deposit card from the bursar, in the Administration Building. No student will be assigned a desk in the laboratory until he presents this card. The \$2 course fee, laboratory material, and breakage will be charged against this deposit.

AGRICULTURAL BIOCHEMISTRY

Students in this college may elect courses in Agricultural Biochemistry by arrangement with the division. See the program of the College of Agriculture, Forestry, and Home Economics in this bulletin.

CHILD WELFARE

Adviser in the College of Science, Literature, and the Arts—Professor Anderson.

Major advisers in the College of Education—Professor Anderson and Mrs. Fuller.

For a specialized curriculum in Nursery School and Kindergarten Education, see the Bulletin of the College of Education.

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
10s	Introduction to Child Study (2 cred.; 3rd qtr. fr., soph.; no prereq.)	VI	TTh	100Pt	Mrs. Cummings
40f§	Child Training (3 cred.; soph., jr., sr.; prereq. Psy. 1-2)	V	MWF	202Pt	Ar
40w§	Child Training (See 40f)	IV	MWF	100Pt	Mrs. Fuller
	Sec. 1	V	MWF	202Pt	Ar
	2				
40s§	Child Training (See 40f)	I	TThS	202Pt	Ar

Senior College Courses

Course 80 is open to sophomores who have an average grade of at least C in Psychology 1-2. Other Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

80f	Child Psychology (3 cred.; jr., sr.; prereq. Psy. 1-2)	III	MWF	202Pt	Mrs. Maurer
80w	Child Psychology (See 80f)	III	MWF	202Pt	Mrs. Maurer
80s	Child Psychology (See 80f)	I	MWF	202Pt	Mrs. Maurer
90s	Home, School, and Family Relations (2 cred.; jr., sr.; prereq. 80)	VIII, IX	T	202Pt	Mr. Harris
130f	Motor, Linguistic, and Intellectual Development of the Child (3 cred.; sr., grad.; pre-req. 12 cred. in psy. or equiv.)	I	MWF	202Pt	Mrs. Maurer
131w	Personality, Emotional, and Social Development of the Child (3 cred.; sr., grad.; pre-req. 12 cred. in psy. or equiv.)	II	MWF	202Pt	Mr. Anderson
133f-134w-135s	Measurement of Child Personality (2, 4, or 6 cred.; sr., grad.; prereq. 10 cred. in psy. or ed. psy.)	VI, VII	TTh	202Pt	Mr. Anderson
140f	Behavior Problems in Younger Children (2 cred.; sr., grad.; prereq. 12 cred. in psy., ed. psy., or soc.)	I, II	S	202Pt	Miss Goodenough
140s	Behavior Problems in Younger Children (See 140f)	VIII, IX	Th	202Pt	Mr. Harris
141w	Behavior Problems in Older Children (2 cred.; sr., grad.; prereq. 12 cred. in psy., ed. psy., or soc.)	I, II	S	202Pt	Miss Goodenough

§ Not open to Home Economics students, who should take Home Economics Education 90, which is offered fall and spring on the University Farm campus. See the program of the College of Education in another part of this bulletin.

No.	Title	Hour	Day	Bldg.	Instructor
170f	Parent Education (3 cred.; sr., grad.; prereq. 15 cred. in child welfare or home econ. or educ. or psy. or soc. or prev. med.)	V	MWF	202Pt	Mrs. Faegre
182w	Later Childhood and Adolescence (3 cred.; prereq. 80 or equiv.)	I	MWF	202Pt	Mr. Harris
185s	Children in the War and Postwar Period (3 cred.; sr., grad.; prereq. 12 cred. in psy., educ., or soc.)	IV	MWF	202Pt	Mr. Harris
190f	Principles of Mental Measurement of Young Children (2 cred.; sr., grad.; prereq. 12 cred. in psy., ed. psy., or soc.)	V	TTh	100Pt	Miss Goodenough

For Graduate Students Only

220f-221w-222s	Seminar in Current Research	Ar		Ar 202Pt	Staff
225s	Seminar in Developmental Theory	Ar		Ar 202Pt	Mr. Anderson
230f-231w-232s	Seminar in Recent Literature	IX		M 202Pt	Miss Goodenough
233f-234w-235s	Research in Child Development	Ar		Ar 101Pt	Mr. Anderson and others
236f-237w-238s	Seminar in Human Development—Fall: Infant; Winter: Child; Spring: Adolescent	Ar		Ar 204EPt	Miss Good- enough
250f-251w-252s	Seminar in Nursery Education	VIII		TTh 202Pt	Mrs. Fuller
260s	Physical Growth and Development	III		MWF 204EPt	Dr. Booth
270f-271w-272s	Readings in Child Development	Ar		Ar 101Pt	Mr. Anderson and others
273w	Techniques of Parent Education	VI, VII		M 202Pt	Mrs. Faegre
274w-275s	Field Work in Parent Education	Ar		Ar 204EPt	Mrs. Faegre
280s	Psychology of Atypical Children	VIII		MWF 204EPt	Miss Good- enough
290w-291s	Mental Examination of Preschool Children	Ar		Ar 205Pt	Mrs. Maurer

Note—See also Courses Ed.T. 55-59, 75, 76A-76B-76C, 77A-77B-77C, and Ed.C.I. 130, offered by the Institute of Child Welfare, and listed under Methods and Directed Teaching and Curriculum and Instruction in the program of the College of Education.

CLASSICS

Major adviser in the College of Science, Literature, and the Arts—Professor Ogle.

Major sequences in the College of Science, Literature, and the Arts—

GREEK

The elementary course 1-2-3 and twenty-seven credits in courses numbered above 50, which may include nine credits in Latin courses numbered above 50, or nine credits in ancient history.

LATIN

Any three of the courses with numbers between 50 and 100; and one of the following combinations: (a) Any six courses numbered above 100; (b) any three courses numbered above 100, and Greek 51, 52, 53 or nine credits in ancient history.

Modifications of these sequences will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

Major adviser in the College of Education—Professor Heller.

Requirements for a teacher's certificate in Latin—Major recommendation: Course 73-74-75 and any two of the courses with numbers between 50 and 100, 111-112-113 and two courses numbered above 100.

Minor recommendation: Course 73-74-75 and any two of the courses with numbers between 50 and 100.

To secure a recommendation from the department to take Special Methods and Directed Teaching in Latin a student must make a grade of C or better in Course 73-74-75.

GREEK

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
1f-2w†	Beginning Greek (10 cred.; no prereq.)	I	MTWThF	108F	Mr. Heller
3s	Selections from Attic Prose (5 cred.; prereq. 1-2)	I	MTWThF	108F	Mr. Heller

Senior College Courses

Courses 51, 52, 53, 73 are open to Junior College students who have an average grade of at least C in the prerequisite courses. Other Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

51f	Lucian (3 cred.; jr., sr.; prereq. 1-2-3)	II	MWF	112F	Mr. Heller
52w	Homer (3 cred.; jr., sr.; prereq. 1-2-3)	II	MWF	112F	Mr. Heller
53s	Plato, Apology and Selections (3 cred.; jr., sr.; prereq. 1-2-3)	II	MWF	112F	Mr. Heller
73s	New Testament (3 cred.; jr., sr.; prereq. any two of 51,52,53)	Ar	Ar	118F	Mr. Ogle
101	<i>Tragedy</i> (3 cred.; jr., sr., grad.; prereq. any three of 51,52,53,73) (<i>Not offered</i>)				
102	<i>Comedy</i> (3 cred.; jr., sr., grad.; prereq. any three of 51,52,53,73) (<i>Not offered</i>)				
103	<i>Lyric Poetry</i> (3 cred.; jr., sr., grad.; prereq. any three of 51,52,53,73) (<i>Not offered</i>)				
111	<i>History: Herodotus</i> (3 cred.; jr., sr., grad.; prereq. any three of 51,52,53,73) (<i>Not offered</i>)				
112	<i>History: Thucydides</i> (3 cred.; jr., sr., grad.; prereq. any three of 51,52,53,73) (<i>Not offered</i>)				
113	<i>Hellenistic Literature</i> (3 cred.; jr., sr., grad.; prereq. any three of 51,52,53,73) (<i>Not offered</i>)				
121-122-123†	<i>Advanced Composition</i> (9 cred.; jr., sr., grad.; prereq. 24 credits in Greek) (<i>Not offered</i>)				
131	<i>Philosophy: Advanced Plato</i> (3 cred.; jr., sr., grad.; prereq. any two courses numbered above 100) (<i>Not offered</i>)				
132	<i>Philosophy: Aristotle's Ethics</i> (3 cred.; jr., sr., grad.; prereq. 131 or any two courses numbered above 100) (<i>Not offered</i>)				
171f,172w,173s	Independent Reading Course (3 cred. per qtr.; prereq. two courses with numbers above 100; open to students of exceptional ability with the consent of the instructor)	Ar	Ar	112F	Mr. Heller

For Graduate Students Only

201f-202w-203s	Graduate Seminar: Greek Literary Bibliography and Criticism (9 cred.)	Ar	Ar	112F	Mr. Heller
211-212-213	<i>Graduate Seminar: Greek Epic</i> (9 cred.) (<i>Not offered</i>)				
221-222-223	<i>Graduate Seminar: Greek Drama and Lyric Poetry</i> (9 cred.) (<i>Not offered</i>)				
231-232-233	<i>Graduate Seminar: Greek Philosophy</i> (9 cred.) (<i>Not offered</i>)				

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

Courses for Which No Knowledge of Greek Is Required
(See page 37)

LATIN

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
1f-2w†	Beginning Latin (10 cred.; no prereq.)	I	MTWThF	110F	Mr. Cram
3s	Intermediate Latin (5 cred.; prereq. 1-2, or 1 yr. of high school Latin)	I	MTWThF	110F	Mr. Cram
11f	Vergil I (5 cred.; prereq. 1-2, 3, or 2 yrs. of high school Latin)	III	MTWThF	110F	Mr. Cram
12w	Vergil II (5 cred.; prereq. 11, or 3 yrs. of high school Latin)	III	MTWThF	110F	Mr. Cram

Senior College Courses

Courses 51, 52, 53, 63, 73-74-75, 81-82-83 are open to Junior College students who have an average grade of at least C in the prerequisite courses. Other Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

51f	Selected Readings from Prose and Poetry (3 cred.; jr., sr.; prereq. 12, or 3 or 4 yrs. of high school Latin)	II	TThS	110F	Mr. Ogle
52w	Horace (3 cred.; jr., sr.; prereq. 51 or 63)	II	TThS	110F	Mr. Ogle
53	<i>Suetonius, Selected Lives</i> (3 cred.; jr., sr.; prereq. 51 or 52 or 63) (<i>Not offered</i>)				
63s	Plautus and Terence (3 cred.; prereq. 12, or 4 yrs. of high school Latin)	II	TThS	110F	Mr. Heller
73f-74w-75s†	Prose Composition (3 cred.; prereq. 12, or 4 yrs. of high school Latin)	Ar	Ar	Ar	Mr. Cram
81-82-83	<i>Survey of Roman Literature</i> (9 cred.; jr., sr.; prereq. any one of Courses 51, 52, 53, 63) (<i>Not offered</i>)				
111f-112w-113s†	Advanced Prose Composition (3 cred.; jr., sr., grad.; prereq. 73-74-75)	VII	T	108F	Mr. Ogle
121	<i>Advanced Vergil</i> (3 cred.; jr., sr., grad.; prereq.*) (<i>Not offered</i>)				
131	<i>Juvenal</i> (3 cred.; jr., sr., grad.; prereq.*) (<i>Not offered</i>)				
133s	Vulgar Latin (Development of Latin into Romance) (3 cred.; jr., sr., grad.; open to advanced students of Latin or a Romance language with the consent of instructor)	II	MWF	109F	Mr. Ogle
142w	Tacitus (3 cred.; jr., sr., grad.; prereq.*)	II	TThS	108F	Mr. Ogle
151f	Advanced Cicero (3 cred.; jr., sr., grad.; prereq.*)	II	TThS	108F	Mr. Ogle
152	<i>Lucretius</i> (3 cred.; jr., sr., grad.; prereq.*) (<i>Not offered</i>)				
171f, 172w, 173s	Independent Reading Course (3 cred. per qtr.; prereq.*; open to students of exceptional ability with the consent of department)	Ar	Ar	118F	Ar

For Graduate Students Only

201-202-203	Graduate Seminar: Cicero (9 cred.) (<i>Not offered</i>)				
211f-212w-213s	Graduate Seminar: The Latin Epic (9 cred.)	VIII-IX	T	108F	Mr. Ogle

* Any two of the courses with numbers between 50 and 100.

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A student who enters in the spring quarter with three years of high school Latin may, by special permission, take Course 63s.

No.	Title	Hour	Day	Bldg.	Instructor
221-222-223	Graduate Seminar: Lyric Poetry (9 cred.) (Not offered)				
231-232-233	Graduate Seminar: Latin Historiography (9 cred.) (Not offered)				
241f-242w-243s	Graduate Seminar: Introduction to Classical Philology (9 cred.)	VIII, IX	Th	110F	Mr. Cram

Courses for Which No Knowledge of Greek or Latin Is Required

24s	Greek and Latin Elements in English (The same as English 24.) (2 cred.; soph., jr., sr.; no prereq.)	III	TTh	110F	Mr. Cram
31f,32w§	Greek and Latin Drama (The same as English 31, 32) (2 cred. per qtr.; soph., jr., sr.; no prereq.)	IV	TF	109F	Mr. Ogle
42w	Greek Mythology—The origin and development of myths (2 cred.; soph., jr., sr.; no prereq.)	IV	MW	114F	Mr. Heller
43s	Ancient Mythology in Relation to Literature and Art (The same as English 43) (2 cred.; soph., jr., sr.; no prereq.)	IV	MW	114F	Mr. Heller
92-93†	Classical Literary Tradition (4 cred.; jr., sr.; no prereq.) (Not offered)				
106w	General Linguistics (3 cred.; jr., sr., grad.; prereq. any two courses numbered above 50 in a foreign language)	Ar	Ar	Ar	Mr. Ogle
107s	Cultural Aspects of Language (3 cred.; jr., sr., grad.; prereq. any two courses numbered above 50 in a foreign language)	Ar	Ar	Ar	Mr. Ogle

COMPARATIVE PHILOLOGY AND LINGUISTICS

See Linguistics and Comparative Philology, page 66.

DRAWING AND DESCRIPTIVE GEOMETRY

INSTITUTE OF TECHNOLOGY

Junior College Courses

1-2	Engineering Drawing—Elements of drafting, including an introductory course in methods of representation and constructive geometry. Graphs and formulas. Sketching, lettering, working drawings, conventions, standards, tracing, and blueprinting. (3 cred. per qtr.; prereq. solid geometry) This course may be taken for credit by students of the College of Science, Literature, and the Arts; but arrangements for their admission to the course must be made through the Junior College office, 106 Folwell Hall.				
41-42-43f,w,s	Technical Drawing—(a) General course in the theory and practice of freehand drawing. Principles of perspective, sketching, rendering, conventions, lettering, and industrial drawing. (b) Modification of the above course of particular interest to dental, medical, and scientific students (6 cred.; no prereq.)	Sec. 1 2 3	I, II VI, VII VIII, IX	MWF MWF MWF	411C Mr. Doseff
44f,w,s,su	Lettering—A practical course in plain lettering (1 cred.; no prereq.)	IV	T	21E(fall) 21E(winter) 107E(spring)	
45f,w,s	Alphabets—Construction and analysis of classic and modern roman, italic, script, and gothic styles, including Old English. Exercises in composition. Reference work (2 cred.; soph., jr., sr.; prereq. 44)	III	TS	7E	

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

§ Students may enter either quarter.

Senior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
64w	Graphic Arts—Field, development, and application in art and industry. Design and composition. Discussion of materials, style, and technique. (3 cred.; jr., sr.; prereq. 15 cred. in econ.)				
		IV	MWF	206E	Mr. Doseff
Course 64w is one of three courses related in general subject matter of special interest to students of journalism and advertising. The other two, listed elsewhere in this bulletin, are Journalism 65f, "Graphic Arts: Processes," and Business Administration 194a, "Advanced Advertising Procedure."					
81-82-83f,w,s	Advanced Drawing—Principles of design—traditional and modern. Layouts, composition, and illustration. Black and white and color. Scientific modeling. (3 cred. per qtr.; prereq. 43 or equiv.)				
		Ar		Ar Ar	Mr. Doseff
86-87f,w,s†	Anatomical Drawing (3 cred. per qtr.; prereq. 43 or equiv.)				
		Ar		Ar Ar	Mr. Doseff

Other courses offered by the Department of Drawing and Descriptive Geometry and listed in the Bulletin of the Institute of Technology are open to students of this college only by special permission of the Students' Work Committee.

ECONOMICS

For courses, major advisers, and major sequences in Economics, see the program of the School of Business Administration, in another part of this bulletin. The courses listed there under the heading "Economics" are regularly open to students of the College of Science, Literature, and the Arts. For freshmen and sophomores, there are courses in industrial history, money and banking, the principles of economics, accounting, statistics, and secretarial training, which includes typewriting, shorthand, and secretarial procedure; and for juniors and seniors there is a large variety of advanced courses. The courses under the heading "Business Administration" are announced as *Open to Business Administration Students Only*.

EDUCATION

The following courses in Education are regularly open to students in the College of Science, Literature, and the Arts:

Art Education (Courses in Design)

ArtEd.1-2-3	Fundamental Experiences in Design
ArtEd.20-21-22	Fundamental Experiences in Design (Continuation of 1-2-3)

Art Education (Courses in Representation)

ArtEd.4-6-8	Drawing from Still Life and Pose
ArtEd.24-26-28	Drawing and Painting from Still Life and Pose (Continuation of 4-6-8)
ArtEd.61,62,63	Painting
ArtEd.66,67,68	Painting (Continuation of 61,62,63)
ArtEd.124-125-126	Advanced Painting

Music Education

Mu.Ed.1	Music Orientation
Mu.Ed.63†	Band Conducting
Mu.Ed.65†	Instrumentation
Mu.Ed.68	Conducting of Instrumental Music and Survey of Materials

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$1 per credit is charged for this course.

Educational Psychology

Ed.Psy.60	Introduction to Measurements and Statistics
Ed.Psy.141	Group Aptitude Testing
Ed.Psy.142	Individual Aptitude Testing

Physical Education

See pages 13 and 14, under the headings "Physical Education for Men" and "Physical Education for Women."

For hours, days, credits, prerequisites, etc., see the Education section of this Combined Class Schedule.

Other courses in Education may be taken by students of the College of Science, Literature, and the Arts only by special permission of the Students' Work Committee and the consent of the College of Education. Requests for the special permission should be submitted by Junior College students to Assistant Dean Bussey in 106 Folwell Hall and by Senior College students to Assistant Dean Thomas in 217 Folwell Hall.

ENGLISH

Major advisers in the College of Science, Literature, and the Arts—Professor McDowell; Assistant Professors Jackson and Flanagan.

Major sequence in the College of Science, Literature, and the Arts—A total of at least 31 credits for the entire sequence, comprising the following:

A. Courses 75, Chaucer; 55-56, Shakespeare; 62, Milton.

B. Eighteen additional credits in Senior College courses, of which at least twelve must be from courses numbered 100 or above.

(Prerequisites: Courses 21-22 or 22-23)

Modifications of this sequence will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

Major advisers in the College of Education—Professors Dora Smith and McDowell.

Requirements for a teacher's certificate—

a. English as a major subject in the College of Education:

English 22-23. Introduction to Literature	10
English 55-56. Shakespeare	6
English 73-74. American Literature	6
Composition 27-28. Advanced Writing	6
Speech	6
Additional credits, all of which must be secured in courses numbered 100 or above.....	6
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Total credits	40

b. English as a minor subject in the College of Education:

English 22-23. Introduction to Literature	10
English 55-56. Shakespeare	6
English 73-74. American Literature	6
Composition 27-28. Advanced Writing	6
<hr/>	
Total credits	28

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
A-B-C	Freshman English—Two hours of composition (meets the requirement for graduation as an equivalent of Comp. 4-5-6) and three hours of literature: Readings in American and English literature selected as exemplifying the statement that "literature is an interpretation of life." For program, see p. 44. English A: The Drama of American Life English B: The Larger World English C: The Significance of the Human Drama				
21f-22w-23s**	Introduction to Literature—21f: Marlowe, Spenser, Bacon, Browne, Milton, and Bunyan; 22w: Dryden, Pope, Swift, Addison and Steele, Johnson, Boswell, Fielding, and Sheridan; 23s: Wordsworth, Byron, Shelley, Keats, Lamb, Carlyle, Brown- ing, and Arnold (15 cred.; prereq.*) Sec. 1 2	III VI	MTWThF MTWThF	301F 301F	Mr. Thomas Miss Jackson
24s	Greek and Latin Elements in English Language (The same as Classics 24) (2 cred.; soph., jr., sr.; no prereq.)	III	TTh	110F	Mr. Cram
31f,32w†	Greek and Latin Drama in English (The same as Classics 31, 32) (2 cred. per qtr.; soph., jr., sr.; no prereq.)	IV	TF	109F	Mr. Ogle
37f-38w-39s‡	Twentieth-Century Literature—Readings in British and American literature since the 1890's, arranged by types of discourse—37f: The literature of opinion, biography, travel, etc., with some reading in the short story; 38w: Poetry and drama; 39s: The novel since Thomas Hardy. This course, as a general introduction to the intelligent reading of literature, is intended for students in all colleges, and not particularly for those meaning to specialize in English (9 cred.; soph., jr., sr.; prereq.*)	VII	MWF	301F	Ar
40w-41s‡	The Bible as Literature (6 cred.; prereq.*)	IV	MWF	206F	Mr. Dunn
43s	Ancient Mythology in Relation to Literature and Art (The same as Classics 43) (2 cred.; soph., jr., sr.; no prereq.)	IV	MW	114F	Mr. Heller
45s	American Life in American Literature—This course is intended for students in all colleges, and not particularly for those who mean to specialize in English (3 cred.; soph., jr., sr.; prereq.*)	II	MWF	305F	Mr. McDowell

Attention of students is called to Humanities 1-2-3 and 5-6-7 (page 60).

Senior College Courses

Courses 52-53, 54, 55-56, 62, 73-74, 75 are open to Junior College students who have an average grade of at least C in the prerequisite courses. Other Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

52f-53w‡	The English Novel—52f: The reading of novels of Defoe, Fielding, Fanny Burney, Jane Austen, Scott, Thackeray; 53w: The reading of novels by Dickens, Charlotte and Emily Brontë, George Eliot, Trollope, Meredith (6 cred.; jr., sr.; prereq.§)	VI	MWF	204F	Mr. Hillhouse
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* English A-B-C or Composition 4-5-6 or exemption from requirement.

‡ Composition 4-5-6 and 6 additional credits, or English A-B-C, or 10 credits in 21-22-23.

† Students may enter any quarter.

** Students may enter any quarter. Two quarters are required as prerequisite for a major sequence; the second and third quarters are required for a teacher's certificate. Three quarters are recommended.

No.	Title	Hour	Day	Bldg.	Instructor
54	<i>English Prose from Morris to Shaw</i> (3 cred.; jr., sr.; prereq.§) (<i>Not offered</i>)				
55f-56w	Shakespeare—Course 55f: The reading of <i>The Comedy of Errors</i> , <i>The Two Gentlemen of Verona</i> , <i>The Taming of the Shrew</i> , <i>The Merchant of Venice</i> , <i>Much Ado about Nothing</i> , <i>Twelfth Night</i> , with collateral reading. <i>A Midsummer Night's Dream</i> , <i>The Tempest</i> , to be read independently. Course 56w: The reading of <i>Richard II</i> , <i>Henry IV</i> , 1 and 2, <i>Henry V</i> , <i>Richard III</i> , <i>Julius Caesar</i> , <i>Hamlet</i> , <i>Macbeth</i> , with collateral reading (6 cred.; jr., sr.; prereq.§)				
	Sec. 1	I	TThS	113F	Mr. Hessler
	2	II	TThS	303F	Ar
	3	VI	MWF	311F	Mr. Flanagan
	4	VII	MWF	209F	Mr. Dunn
55w-56s	Shakespeare—(See 55f-56w)				
	Sec. 1	III	TThS	124F	Miss Atkins
	2	VI	MWF	209F	Miss Atkins(w), Mr. Hill- house(s)
55s	Shakespeare (1st qtr. of 55-56. See 55f-56w)				
	I		TThS	113F	Mr. Hessler
62f	Milton (3 cred.; jr., sr.; prereq. 21-22 or 55-56)				
	IV		MWF	205F	Mr. Dunn
62s	Milton (See 62f)				
	VI		MWF	206F	Mr. Dunn
73f-74w†	American Literature—Notable authors from Jonathan Edwards to John Steinbeck (6 cred.; jr., sr.; prereq.§)				
	II		MWF	301F	Mr. McDowell
75f	Chaucer (4 cred.; jr., sr.; prereq.§)				
	III		MTWF	305F	Ar
75s	Chaucer (See 75f)				
	III		MTWF	213F	Ar
97-98-99	<i>Independent Reading Course</i> (9 cred.; jr., sr.; prereq. permission of department) (<i>Not offered</i>)				
100f	Old English (4 cred.; jr., sr., grad.; prereq. 6 cred. above 50)				
	II		TWThF	204F	Ar
102w	Old English Poetry (3 cred.; jr., sr., grad.; prereq. 100)				
	II		MWF	204F	Ar
103s	Beowulf (3 cred.; jr., sr., grad.; prereq. 100)				
	II		MWF	204F	Ar
105-106	<i>Eighteenth-Century Poetry</i> (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50) (<i>Not offered—offered in 1945-46</i>)				
107w-108s	<i>Eighteenth-Century Prose</i> (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50)				
	VII		MWF	204F	Mr. Moore
109f-110w	<i>Romantic Poets</i> —109f: Wordsworth, Coleridge, Scott; 110w: Byron, Shelley (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50)				
	III		TThS	204F	Ar
111-112	<i>Seventeenth-Century Prose</i> (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50) (<i>Not offered—offered in 1945-46</i>)				
113f	American Short Story (3 cred.; jr., sr., grad.; prereq. 73-74)				
	III		MWF	204F	Mr. McDowell
114w	The Literature of the Middle West (3 cred.; jr., sr., grad.; prereq. 73-74 or History 20-21-22)				
	II		MWF	227F	Mr. Flanagan
115f-116w	The Development of English Prose Style (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50)				
	VI		MWF	206F	Mr. Brown
117	<i>American Essay</i> (3 cred.; jr., sr., grad.; prereq. 73-74) (<i>Not offered</i>)				

‡ Composition 4-5-6 and 6 additional credits, or English A-B-C, or 10 credits in 21-22-23.

† Students may enter any quarter.

No.	Title	Hour	Day	Bldg.	Instructor
118f-119w	Nineteenth-Century Prose—118f: The familiar essay and related forms: Lamb, Hazlitt, De Quincey, Landor; 119w: The literature of opinion and social criticism: Carlyle, Newman, Ruskin, Arnold, Mill, Huxley (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50 or consent of instructor)				
		II	TThS	205F	Ar
120-121	<i>The Interpretation of Poetry</i> (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50) (<i>Not offered—offered in 1945-46</i>)				
123-124-125	<i>Technique of the Novel</i> (9 cred.; sr., grad.; prereq. 6 cred. above 50 and permission of instructor) (<i>Not offered—offered in 1945-46</i>)				
126f-127w	Drama, 1660-1900 (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50)	VII	MWF	306F	Mr. Hillhouse
129a	Modern Drama (3 cred.; jr., sr., grad.; prereq. 55-56 or 126-127)	II	MWF	206F	Ar
133	<i>Ballads</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. above 50) (<i>Not offered</i>)				
135	<i>Spenser</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. above 50) (<i>Not offered—offered in 1945-46</i>)				
136s	Advanced Shakespeare (3 cred.; jr., sr., grad.; prereq. 55-56)	I	MWF	205F	Mr. Brown
137f	Late Eighteenth-Century Poetry (3 cred.; jr., sr., grad.; prereq. 6 cred. above 50)	VII	MWF	206F	Mr. Moore
139	<i>Middle English</i> (3 cred.; jr., sr., grad.; prereq. 100) (<i>Not offered</i>)				
140s	Advanced Chaucer (3 cred.; jr., sr., grad.; prereq. 6 cred. above 50, including 75)	IV	MWF	311½F	Ar
141-142	<i>Historical Grammar</i> (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50) (<i>Not offered</i>)				
148-149	<i>Arthurian Romances</i> (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50 including 75) (<i>Not offered</i>)				
150f	Victorian Poetry (3 cred.; jr., sr., grad.; prereq. 6 cred. above 50)	II	MWF	303F	Ar
151s	Recent Poetry (4 cred.; jr., sr., grad.; prereq. 6 cred. above 50)	III	TWThF	204F	Miss Jackson
152	<i>Medieval and Early Elizabethan Drama</i> (3 cred.; jr., sr., grad.; prereq. 55-56) (<i>Not offered</i>)				
153s	Seventeenth-Century Lyricists (3 cred.; jr., sr., grad.; prereq. 6 cred. above 50)	IV	MWF	204F	Mr. Moore
154w-155s†	American Novel (6 cred.; jr., sr., grad.; prereq. 73-74 or 52-53)	III	MWF	205F	Mr. McDowell
156	<i>American Drama</i> (3 cred.; jr., sr., grad.; prereq. 73-74 or 126-127) (<i>Not offered—offered in 1945-46</i>)				
157-158	<i>Elizabethan Non-Dramatic Literature</i> (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50, including 55-56 or 170) (<i>Not offered</i>)				
159	<i>Colonial Literature in America</i> (3 cred.; jr., sr., grad.; prereq. 73-74) (<i>Not offered</i>)				
160-161	<i>History of the English Language</i> (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50, including 100) (<i>Not offered</i>)				
162	<i>Restoration Non-Dramatic Literature</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. above 50) (<i>Not offered—offered in 1945-46</i>)				
163f-164w	Restoration Drama (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50)	IV	MWF	204F	Mr. Moore
165f	The Historical Study of Modern English—an introductory course for all who major in English, both in S. L. & A. and in Education (3 cred.; jr., sr., grad.; prereq. 6 cred. above 50; not open to students who have taken 100)	VI	MWF	302F	Ar
167f-168w	English Literary Criticism (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50)	II	MWF	206F	Ar
169	<i>Browning and Tennyson</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. above 50) (<i>Not offered—offered in 1945-46</i>)				
170	<i>Elizabethan Drama—Shakespeare's later contemporaries</i> (3 cred.; jr., sr., grad.; prereq. 55-56) (<i>Not offered—offered in 1945-46</i>)				
174	<i>American Usage</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. above 50) (<i>Not offered</i>)				

† Students may enter any quarter.

No.	Title	Hour	Day	Bldg.	Instructor
175w	The History of English Verse (3 cred.; jr., sr., grad.; prereq. 6 cred. above 50)	III	MWF	305F	Miss Jackson
179-180	Social and Intellectual Backgrounds of American Literature (6 cred.; jr., sr., grad.; prereq. 6 cred. of American history, philosophy, political science, or literature) (<i>Not offered—offered in 1945-46</i>)				

Attention is also called to the following courses offered in other language departments for which no knowledge of a foreign language is required: Classics 106, 107; Scandinavian 161, 171; German 73-74-75, 118, 119, 196a.

For Graduate Students Only

250f-251w-252s	Advanced Study in English and American Literature (1 to 3 cred. per qtr.; an opportunity for either independent study or seminar work in the major fields of English and American Literature; topics for investigation will be chosen by each student in conference with his instructor)				
	a. Old and Middle English				Ar
	b. The Renaissance				Mr. Brown
	c. The Seventeenth and Eighteenth Centuries				Mr. Moore
	d. The Nineteenth Century				Ar
	e. American Literature				Mr. McDowell

See also *Composition 200-201-202 (Not offered)*

COMPOSITION

Major advisers in the College of Science, Literature, and the Arts—Professor Warren and Assistant Professor Phelan.

Major sequence in the College of Science, Literature, and the Arts—Course 67-68; 69-70-71 or 81-82-83; and 101-102-103; and 15 credits in Senior College courses in English to be chosen under the direction of a major adviser from a list of recommended courses.

(Prerequisites: Course 27 and two of the following: 28, 29, 65; also English 21-22 or 22-23.)

Modifications of this sequence will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

Important note—No student may register for any course in Freshman English without having taken a placement test. Assignment to a particular course in Freshman English will depend on the student's record in the placement test.

Freshman English is a 15-credit course consisting of 9 credits of literature and 6 credits of composition. Composition 4-5-6 is a 9-credit course in composition. Either course satisfies the requirement in English for graduation or for admission to the Senior College. Students who have already completed one or more quarters of Freshman English in another college should consult Professor Hillhouse, 221 Folwell Hall, before registering.

Any student who receives an A in composition in Course A or B or 4 or 5 may, upon recommendation of his instructor, be exempted from any further requirement in English.

Any student who receives an A or B in Course 4 or 5 may, upon recommendation of his instructor, elect the following quarter of A-B-C.

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
Af-Bw-Cs	Freshman English—Two hours of composition (meets the requirement for graduation as an equivalent of Comp. 4-5-6) and three hours of literature: Readings in American and English literature selected as exemplifying the statement that "literature is an interpretation of life." (15 cred.; prereq. placement test) English A: The Drama of American Life English B: The Larger World English C: The Significance of the Human Drama	I II III IV VI VII	MTWThF MTWThF MTWThF MTWFS MTWThF MTWThF	Ar	Ar
Aw-Bs	Freshman English (2 qtrs. of A-B-C. See Af-Bw-Cs)	I	MTWThF	Ar	Ar
Cf	Freshman English (3rd qtr. of A-B-C. See Af-Bw-Cs)	VI	MTWThF	Ar	Ar
4f-5w-6s	Freshman Composition (9 cred.; prereq. placement test)				
	Sec. 1	I	MWF	Ar	Ar
	2	II	MWF		
	3	III	MWF		
	4	IV	MWF		
	5	V	MWF		
	6	VI	MWF		
	7	VII	MWF		
	8	I	TThS		
	9	II	TThS		
	10	III	TThS		
4w-5s	Freshman Composition (2 qtrs. of 4-5-6. See 4f-5w-6s)				
	Sec. 1	II	TThS	Ar	Ar
	2	V	MWF		
4s	Freshman Composition (1st qtr. of 4-5-6. See 4f-5w-6s)				
	Sec. 1	III	TThS	Ar	Ar
	2	V	MWF		
6f	Freshman Composition (3rd qtr. of 4-5-6. See 4f-5w-6s)	VII	MWF	Ar	Ar
27f-28w‡	Advanced Writing—In the first half of this course the writing is exposition, with stress on logical organization; in the second it consists of description and narration (6 cred.; prereq. A-B-C or 4-5-6 or exemption from requirement)				
	Sec. 1	II	MWF	Ar	Mr. Hessler
	2	III	MWF	Ar	Miss Atkins
	3	III	MWF	Ar	Mrs. Phelan
	4	IV	MWF	Ar	Miss Scallon
	5	IV	MWF	Ar	Mrs. del Plaine
27w-28s‡	Advanced Writing (See 27f-28w)				
	Sec. 1	I	MWF	Ar	Mr. Briggs
	2	IV	MWF	Ar	Miss Christie
27s‡	Advanced Writing (1st qtr. of 27-28. See 27f-28w)				
	Sec. 1	I	MWF	Ar	Mr. Flanagan
	2	II	MWF	Ar	Ar
28f‡	Advanced Writing (2nd qtr. of 27-28. See 27f-28w)	II	MWF	Ar	Mr. Flanagan
29s‡	Advanced Writing—The nature of the writing is left as far as possible to the choice of the students. The instructor will divide the class into several groups according to the types of writing students wish to do (3 cred.; prereq. 27)				
	Sec. 1	II	MWF	Ar	Mr. Hessler
	2	IV	MWF	Ar	Miss Atkins
36s	Technical Writing. Consult the Bulletin of the Institute of Technology.				

‡ To receive credit for any part of this course a student must complete 27-28 or 27, 29.

Senior College Courses

Course 65 is open to Junior College students who have an average grade of at least C in the prerequisite courses.

Courses 67-68, 69-70-71, 81-82-83 are open to Junior College students who have an average of at least B in two quarters of Courses 27-28, 29, 65.

Other Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

No.	Title	Hour	Day	Bldg.	Instructor
65	<i>The Writing of Term Papers and Theses</i> (3 cred.; jr., sr.; prereq. A-B-C or 4-5-6 and 6 additional cred. in English, or 10 cred. in Eng. 21-22-23) (<i>Not offered</i>)				
67-68	<i>Problems of Style</i> (6 cred.; jr., sr.; prereq. average of B in two qtrs. of 27-28, 29, 65) (<i>Not offered—offered in 1945-46</i>)				
69f-70w-71s	Short-Story Writing (6 cred.; jr., sr.; prereq. average of B in two qtrs. of 27-28, 29, 65)	VIII, IX	M	304F	Mrs. Phelan
81-82-83	<i>Essay Writing</i> (6 cred.; jr., sr.; prereq. average of B in two qtrs. of 27-28, 29, 65) (<i>Not offered</i>)				
101f-102w-103s	Seminar in Writing (taught in alternate years by Mr. Warren and Mrs. Phelan) (9 cred.; sr., grad.; prereq. permission of instructor and for undergraduates 6 cred. in Senior College courses in composition)	VIII, IX	W	304F	Mrs. Phelan

For Graduate Students Only

200-201-202	<i>Graduate Seminar in Writing</i> (9 cred.; open to graduates and to special students not candidates for degrees on consent of instructor; credits may be counted as part of the distribution requirement in Plan B for the M.A. or as the minor in Plan A) (<i>Not offered</i>)				
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FINE ARTS

Major adviser in the College of Science, Literature, and the Arts—Professor Schmeckeber.

The courses offered by the Department of Fine Arts are planned to develop critical understanding and practical skill in the arts through the study of subject matter, the history and criticism of style, as well as practical design and studio work. They are offered not only as a field of specialized or professional training, but also are intended to serve the related fields of the humanities, i.e., history, literature, and philosophy, as well as journalism, the social sciences, and education.

The basic introductory course is Fine Arts 1-2-3 which the student is expected to take as early as possible, preferably in the freshman or sophomore year. In it are combined the elementary principles of style and technique of the arts of painting, sculpture, architecture and related arts, with a systematic survey of their development from earliest times through the present day.

Subsequent courses are arranged in two sequences in accordance with the historical or practical interests of the student:

Sequence A is concerned primarily with the historical and critical study of the various stylistic periods, artists, and important works. The selection of courses required and suggested for this sequence offers the student not only a broad acquaintance with the fields of the humanities either as an end in itself or as a foundation for further study, but also affords practical training in art criticism and writing, library, museum, and education work in the arts.

Sequence B is intended for students desiring a practical acquaintance with the various technical processes as well as artistic expression in drawing, painting, and general studio design. Special curricula in commercial art, occupational therapy, and other professional

arts are available to students of the College of Science, Literature, and the Arts through this sequence.

In both elementary and advanced courses the extensive facilities of the University and the Twin Cities are planned as an integral part of the curriculum. These include: the current exhibitions shown at the University Gallery, the collection of prints, reproductions, and art reference pamphlets in the Fine Arts Reading Room of the gallery, the original works of art on exhibit in the Minneapolis Institute of Arts, the Walker Art Center, the St. Paul Gallery of Art, and the studio facilities of the University Department of Art Education, and the Institute of Technology.

Major sequences in the College of Science, Literature, and the Arts—

Sequence A. Art History. Requirements for students majoring in the history and theory of art are Courses 1, 2, 3 (Introduction to Art) and 33 credits in courses numbered above 50. Strongly recommended, but not required, are 6 or more credits of studio work, a reading knowledge of at least one foreign language, and basic courses in history and literature.

Sequence B. Practical Studio Work. Requirements for students majoring in practical art are: Courses 1, 2, 3 (Introduction to Art) ; 9 credits in art history courses with numbers above 70; and 27 credits in practical art courses given by the School of Architecture, and the Departments of Art Education and Drawing and Descriptive Geometry. For a list of these courses see pages 21, 38, and 37 of this bulletin.

Modifications of these sequences will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
1f	Introduction to Art: Modern Art—Modern architecture, painting, and sculpture in Europe and America, with a critical analysis of the various schools, the theories, and the principal works of contemporary art. Particular emphasis is placed upon the study of important architectural monuments in St. Paul and Minneapolis as well as the original works of art in the Minneapolis Institute of Arts, the Walker Art Center, and the St. Paul Gallery of Art. These, together with the current exhibitions and art reproductions in the University Gallery, are the working laboratories of the course (3 cred.; no prereq.)	III and 1 hr. ar.	TTh	JAud	Mr. Schmeckebier
2w	Introduction to Art: Ancient and Medieval Art—A general history of painting, sculpture, and architecture from prehistoric times through the Egyptian, Greek, and Roman styles to the end of the Romanesque and Gothic periods of Medieval Europe (3 cred.; no prereq.)	III and 1 hr. ar.	TTh	JAud	Mr. Schmeckebier
3s	Introduction to Art: Renaissance and Baroque Art—The history of painting, sculpture, and architecture from the early Renaissance in Italy to the French Revolution (3 cred.; no prereq.)	III and 1 hr. ar.	TTh	JAud	Mr. Schmeckebier

Senior College Courses

Courses 51-52-53, 57-58-59, and 71-72-73 are open to sophomores who have completed 9 credits in Fine Arts, with an average grade of C. Other Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

No.	Title	Hour	Day	Bldg.	Instructor
51f-52w-53a	History of Architecture—This is the same course as Arch. 51-52-53. It is intended to present the basic elements of architecture (design, plan, elevation, decoration, and function) as illustrated in the great historic examples (9 cred.; jr., sr.; prereq. consent of instructor)				
		IV	MWF	320E	Mr. Robertson
57-58-59	<i>Art in the Americas</i> —A comprehensive study of painting, sculpture, and architecture in North and South America, treating the development of the various colonial styles, the important pre-Columbian traditions, and the significant national and regional schools of modern art, particularly in Mexico and the United States (3 cred. per qtr.; jr., sr.; prereq. 1-2-3 or 51-52-53 or consent of instructor) (<i>Not offered</i>)				
61f-62w-63a	Tutorial Work (The same as Arch. 61-62-63) (2 cred. per qtr.; for students majoring in architecture or in fine arts, Sequence A only; prereq. consent of instructor)	Ar	Ar	Ar	Mr. Schmeckebier
71f	Modern Art: Classicism and Romanticism—The development of sculpture and painting from the period of the French Revolution to about 1850 in France, Germany, Spain, and England, as well as parallel developments in America (3 cred.; jr., sr.; prereq. 1-2-3 or 51-52-53 or consent of instructor)				
		VI	MWF	2J	Miss Vincent
72w	Modern Art: Realism and Impressionism—Painting and sculpture in Europe during the second half of the nineteenth century with particular emphasis on the various schools of Paris, their influence and parallels in England, Germany, and the United States (3 cred.; jr., sr.; prereq. 1-2-3 or 51-52-53 or consent of instructor)				
		VI	MWF	2J	Miss Vincent
73s	Modern Art: Contemporary Art in Europe and America—The development of painting in Europe from Post-Impressionism (Cezanne, Van Gogh, Gauguin) through contemporary Surrealism, together with the related movements in the United States (3 cred.; jr., sr.; prereq. 1-2-3 or 51-52-53 or consent of instructor)				
		VI	MWF	2J	Miss Vincent
141	<i>Art in Egypt and the Near East</i> —The development of architecture, painting, sculpture, and the minor arts of vase painting, mosaic, and metal work in Egypt, Mesopotamia (Hittite, Sumerian, Babylonian, and Assyrian), and Persia. Particular emphasis will be placed on the history and exploitation of the various archeological sites as well as on the methods of archeological research (3 cred.; jr., sr., grad.; prereq. 9 cred. in fine arts, or 9 cred. in hist. or lit. with consent of instructor) (<i>Not offered</i>)				
142	<i>Greek Art</i> —A study of the various Aegean styles (Minoan, Helladic) and particularly the evolution of Greek architecture and sculpture from the archaic through the Classic and Hellenistic periods (3 cred.; jr., sr., grad.; prereq. 9 cred. in fine arts, or 9 cred. in hist. or lit. with consent of instructor) (<i>Not offered</i>)				
143	<i>Etruscan and Roman Art</i> —Architecture, painting, and sculpture from the early Etruscan period through Rome of the Republic and Imperial epochs and the period of Constantine (3 cred.; jr., sr., grad.; prereq. 9 cred. in fine arts, or 9 cred. in hist. or lit. with consent of instructor) (<i>Not offered</i>)				
151	<i>Early Medieval Art</i> —Painting, sculpture, and architecture from the early Christian through the Byzantine and Pre-Carolingian periods, i.e., from the third to the ninth centuries (3 cred.; jr., sr., grad.; prereq. 9 cred. in fine arts or 9 cred. in history with consent of instructor) (<i>Not offered</i>)				
152	<i>Carolingian and Romanesque Art</i> —The development particularly of painting and sculpture in Europe from the ninth to the thirteenth centuries. (3 cred.; jr., sr., grad.; prereq. same as for 151) (<i>Not offered</i>)				
153	<i>Gothic Art</i> —Painting, sculpture, and architecture of the Cathedral period in Europe from the thirteenth to the fifteenth centuries (3 cred.; jr., sr., grad.; prereq. same as for 151) (<i>Not offered</i>)				
154f	Italian Painting and Sculpture of the Early Renaissance—The development of painting and sculpture in Italy from Masaccio and Ghiberti to Donatello and the great painters of the fifteenth century in Florence, Rome, and Venice (3 cred.; jr., sr., grad.; prereq. 9 cred. in fine arts, or 9 cred. in hist. or lit. with consent of instructor)				
		IV	MWF	2J	Mr. Schmeckebier
155w	Great Masters of the High Renaissance—A study of the sources and the important works of Leonardo da Vinci, Raphael, Michelangelo, Titian, and Correggio, with a survey of their influence on the Renaissance art of Spain, France, and Flanders (3 cred.; prereq. 9 cred. in fine arts, or 9 cred. in hist. or lit. with consent of instructor)				
		IV	MWF	2J	Mr. Schmeckebier

No.	Title	Hour	Day	Bldg.	Instructor
156s	Renaissance Art in Northern Europe—The development of painting and sculpture in Flanders, Northern France, and Germany from the Van Eycks to Albrecht Dürer and Hans Holbein. Particular emphasis will be given to the evolution of the graphic arts in the fifteenth century, their influence and contribution to the culture of the Renaissance (3 cred.; jr., sr., grad.; prereq. 9 cred. in fine arts, or 9 cred. in hist. or lit. with consent of instructor)				
		IV	MWF	2J	Mr. Schmeckebier
157	<i>Baroque Art. The Classic Tradition</i> —The development of painting from the academic schools of the late Renaissance in Italy, through the art of Peter Paul Rubens in Flanders, and the classic period of French painting (Poussin, Lorrain) (3 cred.; jr., sr., grad.; prereq. 9 cred. in fine arts, or 9 cred. in history or literature with consent of instructor) (<i>Not offered</i>)				
158	<i>Baroque Art in Spain</i> —Painting during the Golden Age of Spanish culture with particular emphasis on the painting of El Greco and Velasquez (3 cred.; jr., sr., grad.; prereq. 9 cred. in fine arts, or 9 cred. in history or literature with consent of instructor) (<i>Not offered</i>)				
159	<i>Baroque Art in Holland</i> —Painting and the graphic arts in the Low Countries during the seventeenth century, with special study of Rembrandt, Frans Hals, and the minor masters of the Dutch schools (3 cred.; jr., sr., grad.; prereq. 9 cred. in fine arts, or 9 cred. in history or literature with consent of instructor) (<i>Not offered</i>)				

For Graduate Students Only

201f-202w-203s Seminar—Special problems in American Art (3 cred. per qtr.; prereq. 18 cred. in Senior College courses in fine arts or consent of instructor)

Ar

Ar Ar

Mr. Schmeckebier

FRENCH

See Romance Languages, page 95.

GEOGRAPHY

Major adviser in the College of Science, Literature, and the Arts—Professor Davis.

Major sequence in the College of Science, Literature, and the Arts—Twenty-seven credits from Geography 53, 71, 101, 102, 110, 111, 120, 133, 241, 251, 252, 253; Economics 172, 176; Geology 110; History 80-81-82; Botany 131. At least 20 credits must be in Geography.

(Prerequisites: Courses 11 and 41; Geology 1-2 and A-B or 8; Economics 6-7.)

Modifications of this sequence will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

Major adviser in the College of Education—Professor Davis.

Requirements for a teacher's certificate—Major recommendation: a minimum of 28 credits from the following courses in Geography: 11, 41, 47, 53, 71, 101, 102, 110, 111, 120, 133, 241, 251, 252, 253.

An additional 5 or 6 credits from the following courses in Geology: 1-2 or 8.

Minor recommendation: 18 credits from the following courses in Geography: 11 or 41, 53, 71, 101, 102, 110, 120.

For a specialized curriculum in social studies, see the Bulletin of the College of Education.

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
11f	Human Geography—A study of environmental factors as they limit human activities. Current problems in the use of our natural resources are used as illustrative material. Approximately five weeks are devoted to maps and a study of weather and climate, both of value as a preliminary to military training. (5 cred.; no prereq.‡)				
	Sec. 1	II	MTWThF	103Bu	Mr. Davis
	2	III	MTWThF	103Bu	Mr. Brown
11w	Human Geography (See 11f)				
	Sec. 1	II	MTWThF	103Bu	Mr. Davis
	2	III	MTWThF	103Bu	Mr. Brown
11a	Human Geography (See 11f)				
	Sec. 1	II	MTWThF	103Bu	Mr. Davis
	2	III	MTWThF	103Bu	Mr. Brown
27a	Cartography—Maps and charts and the interpretation of aerial photographs (3 cred.; prereq. high school algebra and plane geometry)				
	Lect.	VII	MW	103Bu	Mr. Dicken
	Lab.	VII, VIII	F	103Bu	
35f,w,s	Geography of the World War Theaters—A series of illustrated lectures dealing with the geography of areas of current interest (1 cred.; no prereq.)				
		I	T	103Bu	Mr. Davis and staff
41f,w,s	Geography of Commercial Production—Types of production and their geographic basis. Emphasis on the production of commodities of commercial significance (5 cred.; no prereq.‡)				
		VI	MTWThF	103Bu	Mr. Dicken
43	<i>Political Geography</i> (5 cred.; soph., jr., sr.; no prereq.) (<i>Not offered</i>)				
47	<i>Geography of Minnesota</i> (3 cred.; soph., jr., sr.; no prereq.) (<i>Not offered</i>)				

Senior College Courses

Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

53a	Historical Geography of North America (3 cred.; jr., sr.; prereq. 11, or 15 cred. in history)				
		IV	MWF	103Bu	Mr. Brown
71f	Geography of North America (3 cred.; jr., sr.; prereq. 11)				
		VII	MWF	103Bu	Mr. Dicken
101w	Geography of Europe (3 cred.; jr., sr., grad.; prereq. 8 cred. or permission of instructor)				
		VII	MWF	103Bu	Mr. Dicken
102	<i>Trade Routes and Trade Centers</i> (3 cred.; jr., sr., grad.; prereq. 41) (<i>Not offered</i>)				
110f	Geography of South America (3 cred.; jr., sr., grad.; prereq. 8 cred. or permission of instructor)				
		IV	MWF	103Bu	Mr. Brown
111	<i>Cartography and Graphic Representation</i> (3 cred.; jr., sr., grad.; prereq. 10 cred.) (<i>Not offered</i>)				
120a	Geography of Asia (3 cred.; jr., sr., grad.; prereq. 10 cred. or permission of instructor)				
		I	MWF	103Bu	Mr. Davis
133w	Climatology (3 cred.; jr., sr., grad.; prereq. 10 cred. incl. 11)				
		IV	MWF	103Bu	Mr. Brown

Primarily for Graduate Students

241	<i>Field Course</i> (<i>Not offered</i>)				
251f	Seminar	Ar	Ar	Ar	Mr. Davis
252w	Seminar	Ar	Ar	Ar	Mr. Davis and staff
253a	Seminar	Ar	Ar	Ar	Mr. Davis and staff
301f,w,s	Research Problems	Ar	Ar	Ar	Mr. Davis, Mr. Brown, Mr. Dicken

‡ There is no prerequisite for either Course 11 or Course 41; but students who intend to take both are advised to take Course 11 first.

GEOLOGY AND MINERALOGY

Major adviser in the College of Science, Literature, and the Arts—Associate Professor Thiel.

Major sequences in the College of Science, Literature, and the Arts—No major sequence in geology should be undertaken without at least two quarters of college chemistry. Trigonometry and physics (preferably Physics 7-8-9) are required. Calculus is required for advanced courses in geophysics. A course in surveying (preferably Civil Engineering 17) is required. (For courses in surveying see the Bulletin of the Institute of Technology.) Course 23 should be taken as early as possible. One field trip is required of all students majoring in geology.¶

Sequence A. For general geology, federal, and state surveys, etc. Courses 91-92-93, 101, 111, 112, 121, (124 and 125) or (144 and 145), 151-152-153.

Sequence B. For petroleum geologist. Courses 91-92-93, 101, 105, 112, 119, (144 and 145) or (124 and 125), 151-152-153.

Sequence C. For mining geologist and mineralographer. Courses 110, 111, 119, 121, 124, 125, 144, 145, 166-167.

Sequence D. For paleontologist. Courses 91-92-93, 101, 103-104, 105, 107-108, 151-152-153. (General zoology is recommended.)

Sequence E. For mineralogist. Courses 61, 105, 106, 110, 111, 121, 131-132, 166-167.

Sequence F. For petrographer. Courses 105, 106, 110, 111, 121, 124, 131-132, 140-141.

Modifications of these sequences will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

Major adviser in the College of Education—Associate Professor Thiel.

For a specialized curriculum in natural science see the Bulletin of the College of Education.

For a specialized curriculum in geophysics see the Bulletin of the Institute of Technology.

Junior College Courses

There are two beginning courses in geology: Course 1-2 (with or without the laboratory course A-B); Course 8, which is a one-quarter course, without laboratory, for those who do not take geology to meet a laboratory science requirement.

No.	Title	Hour	Day	Bldg.	Instructor
1f-2w†	General Geology (Dynamic and Historical)—A synoptical treatment of the materials of the earth and of geologic processes, together with a study of the history of the earth and its inhabitants as recorded in the rocks (6 cred.; no prereq.)				
		I	MWF	210P	Mr. Thiel
Af†-Bw†‡	General Geology Laboratory (Dynamic and Historical) (4 cred.; with or after 1-2)	I, II	TTh	220P	Ar
1w-2s†	General Geology (Dynamic and Historical) (See 1f-2w)	III	MWF	210P	Mr. Thiel
Aw†-Bs†‡	General Geology Laboratory (Dynamic and Historical) (See Af-Bw)	VI, VII	WF	220P	Ar
1s	General Geology (Dynamic) (1st qtr. of 1-2. See 1f-2w)	III	TThS	110P	Mr. Thiel
As†‡	General Geology Laboratory (Dynamic) (1st qtr. of A-B. See Af-Bw)	III, IV	TS	22P	Ar

† To receive credit for any part of this course a student must complete the parts preceding the dagger, except that students in Forestry may take 1 and A for 5 credits without completing 2 and B.

‡ A fee of \$1 is charged for this course.

§ Course A-B must be completed if geology is offered as the required laboratory science.

¶ Girls may take trip only when there are enough for a separate section. They should consult the major adviser.

No.	Title	Hour	Day	Bldg.	Instructor
8f	Introductory Geology—A short introductory course as an elective. Principles of earth sculpture; topographic changes and their causative agents; dynamic, structural, and historic geology (5 cred.; no prereq.)	II	MTWThF	210P	Mr. Thiel
8w	Introductory Geology (See 8f)	II	MTWThF	210P	Mr. Thiel
8s	Introductory Geology (See 8f)	II	MTWThF	210P	Mr. Thiel
23ft-24w††	Elements of Mineralogy (8 cred.; soph., jr., sr.; prereq. a course in chemistry)				
	Schedule for 23f Lect.	I	TThS	220P	Mr. Gruner
	Rec.	VIII	Th	110P	
	Lab. Sec. A	III, IV	TS	100P	
	B	VI, VII	TTh	100P	
	Schedule for 24w Lect.	I	TThS	220P	Mr. Gruner
	Rec.	VIII	M	110P	
	Lab. Sec. A	III, IV	TS	100P	
	B	VI, VII	MW	100P	

Senior College Courses

Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

Due to the acceleration of the program of the Institute of Technology some of the following Senior College courses may be scheduled for different terms (fall, winter, spring) than those indicated here. Students should consult the department office (108 Pillsbury Hall) before registering.

51	<i>Elements of Paleontology</i> (5 cred.; jr., sr.; prereq. 1 and Zool. 1-2-3) (<i>Not offered—offered in alternate years</i>)				
61f	Blowpipe Analysis (3 cred.; jr., sr.; prereq. 24)				
	Lect.	II	TThS	100P	Mr. Gruner
	Lab.	VII, VIII	F	100P	
		IX	Th	100P	
91-92-93	<i>Index Fossils of North America</i> (9 cred.; jr., sr.; prereq. 2 or 51) (<i>Not offered</i>)				
100	Field Work in Northern Minnesota—July 15 to 30, approximately. Students interested in this field trip should consult the department (3 cred.; jr., sr.; prereq. 105)			Ar	Mr. Gruner
101f-102w	Sedimentation (6 cred.; jr., sr., grad.; prereq. 24)				
	Schedule for 101f Lect.	VIII	MW	210P	Mr. Thiel
		IX	F	210P	
	Schedule for 102w Lect.	VI	T	208P	Mr. Thiel
	Lab.	VII, VIII	TTh	208P	
103-104	<i>Micropaleontology</i> (6 cred.; jr., sr., grad.; prereq. 51 or 91) (<i>Not offered</i>)				
105s	Rock Study (2 cred.; jr., sr., grad.; prereq. 24)				
	Lect.	I	TS	210P	Mr. Grout
	Lab.	I, II	Th	200P	
106f	Petrography (3 cred.; jr., sr., grad.; prereq. 105)				
	Sec. 1	I, II	Th	200P	Mr. Grout
		VI, VII	M	200P	
	2	VI, VII	TTh	200P	Mr. Grout
107-108-109	<i>Paleontologic Practice</i> (9 cred.; jr., sr., grad.; prereq. 91-92-93) (<i>Not offered</i>)				
110f	Principles of Economic Geology (3 cred.; jr., sr., grad.; prereq. 24)				
		I	TThS	110P	Mr. Schwartz
111w	Ore Deposits—Metallic and Non-metallic (3 cred.; sr., grad.; prereq. 2 and 105)				
		I	TThS	110P	Mr. Schwartz

† To receive credit for any part of this course a student must complete the parts preceding the dagger, except that students in Forestry may take 1 and A for 5 credits without completing 2 and B.

‡ A fee of \$1 is charged for this course.

§ A more comprehensive report will be required for Graduate School credit.

|| Not open to students who have had Course 1. Does not satisfy the Junior College requirement for science. Cannot be followed by Course 1 for credit. May be followed by Course 2 or Course A with instructor's permission.

Due to the acceleration of the program of the Institute of Technology some of the following Senior College courses may be scheduled for different terms (fall, winter, spring) than those indicated here. Students should consult the department office (108 Pillsbury Hall) before registering.

No.	Title	Hour	Day	Bldg.	Instructor
112s	Geology of Petroleum (3 cred.; sr., grad.; prereq. 111)				
		I	TThS	110P	Ar.
114	<i>Geology of Minnesota and Adjoining Areas</i> (3 cred.; jr., sr., grad.; prereq. 105) (<i>Not offered</i>)				
118	<i>Principles of Geomorphology</i> —Principles of physiography of the lands, or geomorphology. A study of the form and structure of plains-plateaus, volcanoes, and the different types of mountains. The normal or fluvial, glacial, marine, and arid cycles of erosion and the resulting land forms. (3 cred.; jr., sr., grad.; prereq. 2) (<i>Not offered—offered in alternate years</i>)				
119	<i>Geomorphology of the United States</i> —A regional study of the United States by geomorphic or physiographic units. The development of the surface features as affected by rock structure and geologic history. Discussion of the principal problems presented by each area. (3 cred.; jr., sr., grad.; prereq. 2) (<i>Not offered</i>)				
120	<i>Glacial Geology</i> —Nature and process of glacial action. Land forms resulting from alpine and continental glaciers. Characters and distribution of Pleistocene and earlier glacial deposits. (3 cred.; jr., sr., grad.; prereq. 2) (<i>Not offered</i>)				
121f	Crystallography (3 cred.; jr., sr.; prereq. Math. 7 and Inorg. Chem. 6-7-8 or 9-10)	Ar	Ar	100P	Mr. Gruner
124w	Metamorphic Geology (3 cred.; jr., sr., grad.; prereq. 2 and 105)	II	MWF	218P	Mr. Schwartz
125s	Structural Geology (3 cred.; jr., sr., grad.; prereq. 2 and 105)	II	MWF	110P	Mr. Schwartz
131w-132s	Advanced Petrology (8 cred.; jr., sr., grad.; prereq. 106)				
	Schedule for 131w Lect.	III	TThS	200P	Mr. Grout
	Rec.	VI	M	200P	
	Lab.	VI, VII	ThF	200P	
	Schedule for 132s Lect.	III	TThS	200P	Mr. Grout
	Rec.	VI	M	200P	
	Lab.	VI, VII	ThF	200P	
137	<i>Testing Economic Minerals</i> (3 cred.; jr., sr., grad.; prereq. 2 and 105) (<i>Not offered</i>)				
140w-141s	Applied Petrography (6 cred.; jr., sr., grad.; prereq. 131)				
	Schedule for 140w Lect.	II	F	200P	Mr. Grout
	Lab.	I, II	MW	Ar	
	Schedule for 141s Lect.	II	F	200P	
	Lab.	I, II	MW	Ar	
144f	Interpretation of Geologic Maps—Study and problems in construction and interpretation of various types of geologic maps. Recognition of structural and stratigraphic relations. (4 cred.; jr., sr., grad.; prereq. 2)				
		VI, VII, VIII, IX	WF	220P	Ar
145w	Interpretation of Topographic Maps—Application of the principles of geomorphology to the interpretation of topographic maps. Practice in the recognition of land forms. Determination of underground structures and evolution of topography from surface contours. (2 cred.; jr., sr., grad.; prereq. 2)				
		VI, VII, VIII, IX	W	220P	Ar
150*	Field Geology (Black Hills)—June 15 to July 15, approximately (Jr., sr., grad.; prereq. 125)				
		Ar	Ar	Ar	Mr. Schwartz
151-152-153	<i>Advanced General Geology</i> (9 cred.; jr., sr., grad.; prereq. 2) (<i>Not offered</i>)				
161w	Crystal Structure (3 cred.; jr., sr., grad.; prereq. 121, elem. phys. and anal. geom.)	Ar	Ar	Ar	Mr. Gruner
166f,w-167w,s	Mineralography (6 cred.; sr., grad.; prereq. 111, 131)	Ar	Ar	207P	Mr. Schwartz
170f,w,s	Geologic Problems (3 cred.; jr., sr., grad.; prereq. permission of major adviser)	Ar	Ar	Ar	Ar

* A maximum of 6 credits will be granted after field report is completed. The course will not be given for fewer than six students.

GEOPHYSICS

See Physics, page 78.

GERMAN

Major adviser in the College of Science, Literature, and the Arts—Professor Burkhard.

Major sequence in the College of Science, Literature, and the Arts—Eighteen credits from Group A or Group B, and 15 additional credits in courses, other than 73-74-75, numbered 50 or above.

A. Courses 50-51-52, 53-54-55, 56-57, 58, 70, 80.

B. Courses 60, 61, 62, 63, 64, 65, 68, 70, 77.

Modifications of this sequence will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

Major adviser in the College of Education—Professor Burkhard.

Requirements for a teacher's certificate—Major recommendation: Courses 50-51-52, 53-54-55, 56-57, 58, 68, and 15 additional credits in courses, other than 73-74-75, numbered 50 or above.

Minor recommendation: Courses 50-51-52, 58, and 8 additional credits in courses, other than 73-74-75, numbered 50 or above.

Sequence of courses for academic students—Without entrance German: Courses 1, 2, 3, 4, other courses numbered 50 or above. With one year of entrance German: Courses 2, 3, 4, other courses numbered 50 or above. With two years of entrance German: Courses 3, 4, other courses numbered 50 or above. With three years of entrance German: Course 4 and other courses numbered 50 or above. With four years of German: courses numbered 50 or above.

Sequence of courses for premedical students—Without entrance German: Courses 1, 2, 3, and 30-31-32 or 33-34.* With one year of entrance German: Courses 2, 3, and 30-31-32 or 33-34.* With two years of entrance German: Courses 3, and 30-31-32 or 33-34.* With three years of entrance German: Courses 30-31-32 or 33-34.

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
1f	Beginning A (5 cred.; no prereq.)	I	MTWThF	212F	Ar
		II	MTWThF	213F	Ar
		III	MTWThF	209F	Ar
		VI	MTWThF	207F	Ar
		II	MTWThF	209F	Ar
1w	Beginning A (See 1f)				
1s	Beginning A (See 1f)				
2f	Beginning B (5 cred.; prereq. 1 or one year of high school German)	II	MTWThF	125F	Ar
		III	MTWThF	212F	Ar
2w	Beginning B (See 2f)	I	MTWThF	212F	Ar
		II	MTWThF	213F	Ar
		III	MTWThF	209F	Ar
		VI	MTWThF	207F	Ar
		II	MTWThF	209F	Ar
2s	Beginning B (See 2f)				

* For the duration of the war only, Courses 30-31-32 or 33-34 are optional.

No.	Title	Hour	Day	Bldg.	Instructor
3f‡	Beginning C (5 cred.; prereq. 2 or two years of high school German)	I	MTWThF	209½F	Ar
		VII	MTWThF	207F	Ar
		II	MTWThF	209½F	Ar
	(Premed. students only)‡				
3w	Beginning C (See 3f)	III	MTWThF	212F	Ar
3s	Beginning C (See 3f)	I	MTWThF	212F	Ar
		II	MTWThF	213F	Ar
		III	MTWThF	209F	Ar
		VI	MTWThF	207F	Ar
		III	MTWThF	209½F	Ar
4f	Intermediate German (5 cred.; prereq. 3 or three years of high school German)	III	MTWThF	209½F	Ar
4w	Intermediate German (See 4f)	I	MTWThF	209½F	Ar
		VII	MTWThF	207F	Ar
4s	Intermediate German (See 4f)	III	MTWThF	212F	Ar
20f-21w-22s	Basic Military and Naval German (9 cred.; open to students in Institute of Technology, and to others by special permission of German Dept.; S.L.&A. students who want to begin the study of German should take Course 1; no prereq.)	VII	MWF	209½F	Ar
24f-25w-26s	Chemical German (9 cred.; chemists, miners; no prereq.)	IV	MWF	209½F	Ar
		2	V	MWF	209½F
24af-25aw-26as	Chemical German (12 cred.; pharmacists and agricultural students; no prereq.)	IV	MTWF	124F	Ar
27f-28w-29s	Chemical Prose (9 cred.; chemists, pharmacists, miners; prereq. two years of high school German or one year of college German)	IV	MWF	209F	Ar
30f-31w-32s	Medical German (9 cred.; premed.; prereq. 3)	II	MWF	113F	Ar
33w-34s	Medical German (10 cred.; premed.; prereq. 3)	II	MTWThF	209½F	Ar
41f-42w-43s	Readings from German Chemical Periodicals (6 cred.; sr.; prereq. 26 or equiv.)	IV	TS	209F	Ar
45f-46w-47s	Advanced Military and Naval German (9 cred.; prereq. 2 or two years of high school German)	II	MWF	110F	Ar

Senior College Courses

Senior College courses with numbers less than 100 are open to Junior College students who have an average grade of at least C in the prerequisite courses. Other Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

50f-51w-52s	Composition (6 cred.; jr., sr.; prereq. 4)	I	TTh	207F	Mr. Downs
53f-54w-55s	Conversation (3 cred.; jr., sr.; prereq. 4)	VI	TTh	304F	Mr. Holske
56f-57w	Essay Writing (6 cred.; jr., sr.; prereq. 52)	III	TThS	316F	Mr. Pfeiffer
58s	German Pronunciation (2 cred.; jr., sr.; prereq. 4)	III	TTh	316F	Mr. Meessen
59w,s	German Pronunciation and Diction (Open only to candidates for the German play.) (1 or 2 cred.; jr., sr.; prereq. 3)	Ar	Ar	Ar	Mr. Pfeiffer
60w	Narrative Prose (3 cred.; prereq. 4 or four years of high school German)	III	MWF	207F	Mr. Holske

‡ For premedical students the winter quarter continuation of 3f is 33w.

No.	Title	Hour	Day	Bldg.	Instructor
60s	Narrative Prose (See 60w)	VII	MWF	212F	Mr. Holske
62s	Nineteenth-Century Prose (3 cred.; jr., sr.; prereq. 3 cred. above 59)	III	TThS	124F	Mr. Pfeiffer
63f	Classical Drama (3 cred.; jr., sr.; prereq. 60 or 4 with a grade of B)	IV	MWF	207F	Mr. Meessen
64w	Nineteenth-Century Drama (3 cred.; jr., sr.; prereq. 3 cred. above 59)	IV	MWF	207F	Mr. Meessen
65s	Modern Drama (3 cred.; jr., sr.; prereq. 3 cred. above 59)	IV	MWF	207F	Mr. Meessen
68w	Introductory Survey of German Literature (3 cred.; jr., sr.; prereq. 6 cred. above 59)	III	MWF	209½F	Mr. Burkhardt
73f-74w-75s†	German Classics in English Translation (6 cred.; sr., grad.; no prereq.)	VI	MW	209½F	Mr. Downs, Mr. Holske, Mr. Meessen
77s	Faust I (3 cred.; jr., sr.; prereq. 63 and 3 additional cred. above 59)	III	MWF	209½F	Mr. Burkhardt
90-91-92f,w,s*	Reading in the Student's Major Field (or in Military or Naval German) (1 cred. per qtr.; jr., sr.; prereq. 4 and consent of instructor)	Ar	Ar	Ar	Ar
110-111-112	<i>Introduction to Germanic Philology</i> (9 cred.; sr., grad.; prereq. 68 and 6 cred. above 59) (Not offered)				
115-116-117	<i>Middle High German Literature</i> (9 cred.; sr., grad.; prereq. 120 and 11 cred. above 59) (Not offered)				
118s	Germanic Heroic Poetry (The same as Scandinavian 183) (3 cred.; sr., grad.; prereq. 68 and 9 cred. above 59)	Ar	Ar	Ar	Mr. Reichardt
119	<i>Germanic Mythology</i> (The same as Scandinavian 182) (3 cred.; sr., grad.; prereq. 6 cred. above 59) (Not offered)				
120f-121w-122s	History of German Literature (9 cred.; sr., grad.; prereq. 68 and 9 cred. above 59)	II	TThS	304F	Mr. Reichardt, Mr. Holske, Mr. Pfeiffer
140-141-142	<i>Early High German Literature, 1500-1700</i> (9 cred.; sr., grad.; prereq. 121 and 11 cred. above 59) (Not offered)				
143-144-145	<i>The Classical Period: Goethe and His Relations to French and English Literature</i> (9 cred.; sr., grad.; prereq. 121 and 11 cred. above 59) (Not offered)				
150-151-152	<i>Die Novelle</i> (9 cred.; sr., grad.; prereq. 122 and 11 cred. above 59) (Not offered)				
153-154-155	<i>Austrian Drama</i> (9 cred.; sr., grad.; prereq. 122 and 11 cred. above 59) (Not offered)				
160-161-162	<i>Lyric Poetry</i> (9 cred.; sr., grad.; prereq. 68 and 11 cred. above 59) (Not offered)				
163f-164w-165s	German and English Literary Relations, 17th, 18th, 19th Centuries (9 cred.; sr., grad.; prereq. 68 and 11 cred. above 59)	VIII, IX, X	F	328Lib	Mr. Pfeiffer
173-174-175	<i>The Modern Novel, 1890-1930</i> (9 cred.; sr., grad.; prereq. 122 and 11 cred. above 59) (Not offered)				
180-181-182	<i>The Romantic School in Germany</i> (9 cred.; sr., grad.; prereq. 122 and 11 cred. above 59) (Not offered)				
183-184-185	<i>Gotfried Keller and Conrad Ferdinand Meyer</i> (9 cred.; sr., grad.; prereq. 122 and 11 cred. above 59) (Not offered)				
192	<i>Gothic</i> —Introduction to Germanic linguistics (The same as Scandinavian 192) (4 cred.; sr. with completed major sequence, grad.) (Not offered)				
193	<i>Gothic Texts</i> (2 cred.; sr., grad.; prereq. 192) (Not offered)				
194	<i>Old Saxon</i> (3 cred.; sr., grad.; prereq. 192) (Not offered)				
195	<i>Introduction to Old Norse Language and Literature</i> (The same as Scandinavian 195) (4 cred.; sr., grad.; prereq. 192) (Not offered)				
196	<i>Eddic Poetry</i> (The same as Scandinavian 196) (3 cred.; sr., grad.; prereq. 195) (Not offered)				

* A student may earn 6 credits in German 90-91-92.

† This course presupposes no knowledge of the German language.

No.	Title	Hour	Day	Bldg.	Instructor
196a	<i>Old Norse Literature</i> (The same as Scandinavian 180) (4 cred.; sr., grad.; prereq. 8 cred. in literature) (<i>Not offered</i>)				
197f-198w-199s	Middle High German (9 cred.; sr. with completed major sequence, grad.)				
		Ar	Ar	Ar	Mr. Reichardt

Primarily for Graduate Students

209-210-211	<i>Old High German</i> (9 cred.; sr. with completed major sequence, grad.) (<i>Not offered</i>)				
218-219-220	<i>Seminar: Runic Inscriptions</i> (The same as Scandinavian 230-231-232) (9 cred.; grad.; prereq. two Germanic dialects) (<i>Not offered</i>)				
253f-254w-255s	Nineteenth-Century Drama: Kleist, Grillparzer, Hebbel (9 cred.; grad.; prereq. 122 and 11 cred. above 59)				

VIII, IX, X T 301Lib Mr. Burkhard

GREEK

See Classics, page 34.

HISTORY

Major advisers in the College of Science, Literature, and the Arts—Professor Krey; Associate Professors Osgood and Steefel.

Major sequence in the College of Science, Literature, and the Arts—Students will take the equivalent of at least two nine-credit courses numbered from 50 to 100. These will normally come in the junior year. In the senior year students, if they have maintained to the end of the junior year an honor point average of 1.5 in all work, will take at least one course numbered 150 or above; all other majors in history will take an additional number of courses with numbers 50 to 100 in the senior year, but will not take courses numbered 150 or above. Normally a history major will consist of Senior College courses aggregating at least 27 credits.

(Prerequisites: Courses 1-2-3 or 4-5-6 or 14-15-16, and 20-21-22.)

Modifications of this sequence will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

Major adviser in the College of Education—Professor Krey.

Requirements for a teacher's certificate—Major recommendation: a minimum of 45 credits; at least 18 credits must be in Senior College courses.

Minor recommendation: a minimum of 18 credits of which at least 9 credits must be in Senior College courses.

No major recommendation to teach history will be given unless the candidate has taken the general course in American history, History 20-21-22, or equivalent.

(Prerequisites: Courses 1-2-3 or 4-5-6 or 14-15-16, and 20-21-22.)

Students will take at least two of the courses numbered from 50 to 100. These will normally come in the junior year. In the senior year students, if they have maintained to the end of the junior year an honor point average of 1.5 in all work, will take at least one course numbered 150 or above; all other majors in history will take an additional number of survey courses in the senior year, but will not take courses numbered 150 or above.

For a specialized curriculum in social studies see the Bulletin of the College of Education.

Students planning to do advanced work in history should get a reading knowledge of French and German in their early undergraduate years.

Junior College Courses

Most of these courses are announced for f-w-s or w-s; but students may enter any quarter.

No.	Title	Hour	Day	Bldg.	Instructor
1f-2w-3s	Civilization of the Modern World (9 cred.; no prereq.)				
	Lect.	II	TTh	BuAud	Mr. Burt
	Rec. Secs.*	II	M	202EdH	
		II	W	202EdH	
		II	F	202EdH	
1w-2s	Civilization of the Modern World (2 qtrs. of 1-2-3. See 1f-2w-3s)				
	Lect.	II	MW	206Pt	Mr. Stephenson
	Rec. Secs.	II	T	202EdH	
		II	Th	202EdH	
		VI	T	112Bu	
3f	Civilization of the Modern World (3rd qtr. of 1-2-3. See 1f-2w-3s)				
	Lect.	II	MW	206Pt	Mr. Stephenson
	Rec. Secs.	II	T	202EdH	
4f-5w-6s	English History—England since prehistoric times (9 cred.; no prereq.)				
		II	MWF	209EdH	Mr. Burt
		IV	MWF	221Bu	Miss Thompson
11f-12w-13s	Medieval History—300-1648 (9 cred.; for music and architecture students only; no prereq.)				
		IV	MWF	221Bu	Miss Thompson
		VII	TTh	221Bu	Mr. Heller
14f-15w-16s	Ancient Civilization (9 cred.; no prereq.)				
	Lect.	VII	TTh	221Bu	Mr. Heller
	Rec.	VII	W	211Bu	
17s	Modern Economic and Social Problems—A historical survey of contemporary problems created by changes in the organization and methods of production and trade, in class relationships, political institutions and ideas; and of the efforts made by farmers, manufacturers, bankers, wage-earners, consumers, voluntary associations, and governments to find conservative, reformist, or revolutionary solutions (5 cred.; 3rd qtr. fr., soph., jr., sr.; no prereq.)				
	Lect.	II	TThS	206Pt	Mr. Heaton
	Rec. Secs.	III	TTh	110P	
		VIII	TTh	111Bu	
		VIII	TTh	111Bu	
20f-21w-22s	American History—20f: Colonial and Early National Period; 21w: Sectionalism and National Development; 22s: Modern America (9 cred.; soph., jr., sr.; no prereq.)				
	Sec. 1	I	MWF	211Bu	Mr. Stephenson
	2	VII	MWF	209Bu	Mr. Osgood
		VII	MWF	209Bu	Mr. Osgood

Senior College Courses

Except where otherwise stated, there are no prerequisites for the courses numbered 50 to 100. Most of these courses are announced for f-w-s or w-s, but students may enter any quarter.

Course 70-71-72 is open to prelegal sophomores who have completed Course 4-5-6 or Course 1-2-3 with a grade of at least C, and also to prelegal sophomores who have an average grade of C in all their work, even if that work includes no course in history. Senior College courses with numbers less than 100 are open to third quarter sophomores who have an average grade of at least C in 9 credits of history. Other Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

50-51-52	History of Greece to 200 B.C. (9 cred.; jr., sr.) (Not offered)
50a-51a-52a	History of Rome (9 cred.; jr., sr.) (Not offered)
50b-51b-52b	History of the Ancient Near East (9 cred.; jr., sr.) (Not offered)
53f-54w-55s	Medieval European History—53f: Decline of the Roman Empire; 54w: The Feudal Age; 55s: The Crusades, Gothic Architecture, Thomas Aquinas (9 cred.; jr., sr.)
	III MWF 112Bu Mr. Krey

* Recitation sections in Courses 1f, 2w, and 3s will not meet until after the first lecture.

No.	Title	Hour	Day	Bldg.	Instructor
53a-54a-55a	<i>Renaissance and Reformation</i> —53a: The Age of Dante and Petrarch; 54a: Italian Renaissance; 55a: The European Renaissance and Reformation (9 cred.; jr., sr.) (<i>Not offered—offered in alternate years</i>)				
56-57-58	<i>Continental Europe</i> —56: 1559-1661, the Era of the Thirty Years' War; 57: 1661-1774, the Age of Louis XIV, the "Age of Reason" and the "Enlightened Despots"; 58: 1774-1815, the French Revolution and the Napoleonic Empire (9 cred.; jr., sr.) (<i>Not offered—offered in alternate years</i>)				
56af-57aw-58as	Russia—56af: The Origins of the Slavs, the Eastward Movement and the Rise of the Principality of Moscow; 57aw: The Empire from Peter the Great to the Revolution of 1917; 58as: The Soviet Union (9 cred.; jr., sr.)	VII	MWF	111Bu	Mr. Steefel
59f-60w-61s	Continental Europe—59f: Reconstruction after the Napoleonic Wars, Liberalism and Nationalism, the Revolutions of 1820, 1830, 1848; 60w: Napoleon III, the First "Modern" Dictator; the Kingdom of Italy and the Second German Reich; 61s: 1871-1914, Forty Years of Peace and Preparation for War (9 cred.; jr., sr.)	IV	MWF	111Bu	Mr. Steefel
62-63-64	<i>European Overseas Expansion</i> —62: Voyages of Discovery and Overseas Expansion, 1400-1600; 63: Colonial Rivalries in the West Indies, East Indies, and India, 1600-1815; 64: Imperialism since 1850 (9 cred.; jr., sr.) (<i>Not offered—offered in alternate years</i>)				
65f-66w-67s	Europe in the Twentieth Century (9 cred.; jr., sr.)	I	MWF	112Bu	Ar
68w-69s	United States since Reconstruction—68w: Since Reconstruction to 1900; 69s: Since Reconstruction, 1900 to Present (6 cred.; jr., sr.)	VII	MWF	221Bu	Mr. Stephenson
70f-71w-72s	English Constitutional History—70f: The Medieval Period; 71w: Early Modern Times; 72s: In the Last Two Centuries (9 cred.; open to prelegal soph. with at least a C average in Courses 20-21-22, 1-2-3, or in all their college work, and to all jrs. and srs.)	I	MWF	111Bu	Miss Thompson, -Mr. Willson
73f-74w-75s	Modern England—73f: Tudors and Stuarts to 1640; 74w: The Later Stuarts and the Eighteenth Century, 1640-1815; 75s: England since 1815 (9 cred.; jr., sr.)	II	MWF	111Bu	Mr. Willson
76f-77w-78s	Canadian History and Canadian American Relations—76f: Rise and Fall of the French Empire in America; 77w: From British Conquest to Federation; 78s: The Dominion of Canada from Its Formation (9 cred.; jr., sr.)	III	TThS	221Bu	Mr. Burt
80f-81w-82s	Introduction to Economic History—80f: Economic Life in Ancient and Medieval Times; 81w: Economic Developments in the Early Modern World; 82s: Economic Developments since 1750 (9 cred.; jr., sr.)	I	TThS	111Bu	Mr. Heaton
83f-84w-85s	American Economic and Social History—83f: Colonial Life; 84w: From the Revolution to 1860; 85s: Developments since 1860 (9 cred.; jr., sr.) (<i>Not offered—offered in alternate years</i>)				
86f-87w-88s	American Colonies—86f: In the Seventeenth Century; 87w: In the Eighteenth Century; 88s: The Revolutionary Crisis (9 cred.; jr., sr.)	II	MWF	112Bu	Mrs. Tyler
89w	Economic History of Modern War—Economic Aspects of the French Revolution and Napoleonic Wars, and of the First and Second World Wars (3 cred.; jr., sr.)	III	TThS	209Bu	Mr. Heaton
90f-91w-92s	The American West—90f: The Colonial Frontier; 91w: Mid-America; 92s: The Far West (9 cred.; jr., sr.)	III	TThS	111Bu	Mr. Osgood
93f-94w-95s	American Diplomatic History—93f: American Diplomacy, 1776-1846; 94w: The Period of National Development; 95s: The United States as a World Power (9 cred.; jr., sr.)	III	MWF	221Bu	Mrs. Tyler
93af-94aw-95as	Survey of Latin-American History—93af: The Colonial Period; 94aw: The Latin-American Republics; 95as: Recent Latin-American History (9 cred.; jr., sr.)	VII	MWF	112Bu	Mrs. Tyler

Courses numbered 150 to 200 are open to seniors, and to graduate students upon recommendation of advisers; prerequisites are appropriate lecture courses and consent of the department.

No.	Title	Hour	Day	Bldg.	Instructor
135-136-137	<i>Selected Readings in Ancient History</i> (9 cred.; jr., sr., grad.) (The same as Anthropology 135-136-137) (<i>Not offered</i>)				
150-151-152	<i>Selected Readings in Ancient History</i> —Cultural history of Egypt (9 cred.; sr., grad.) (The same as Anthropology 150-151-152) (<i>Not offered</i>)				
153f-154w-155s	<i>Selected Readings in Medieval and Renaissance History</i> (9 cred.; jr., sr., grad.)	VIII, IX	W	328Lib	Mr. Krey
156-157-158	<i>Selected Readings in Modern European History</i> (9 cred.; sr., grad.) (<i>Not offered</i>)				
170f-171w-172s	<i>Selected Readings in English History</i> —Tudor and Stuart periods (9 cred.; sr., grad.)	VIII, IX	Th	314Lib	Mr. Willson
176f-177w-178s	<i>Selected Readings in Canadian History</i> (9 cred.; sr., grad.)	Ar	Ar	219Bu	Mr. Burt
180f-181w-182s	<i>Selected Readings in European Economic History since 1700</i> (9 cred.; sr., grad.)	VI, VII	T	111Bu	Mr. Heaton
183-184-185	<i>Selected Readings in American Economic History</i> (9 cred.; sr., grad.) (<i>Not offered</i>)				
190f-191w-192s	<i>Selected Readings in American History</i> (9 cred.; sr., grad.)				
	Third Party Movements since the Civil War	VI, VII	T	328Lib	Mr. Stephenson
	Civil War and Reconstruction (<i>Not offered</i>)				
	The Far West	VIII, IX	W	339Lib	Mr. Osgood
	Social Aspects of American History with Special Reference to the Northwest (<i>Not offered</i>)				

HOME ECONOMICS

COLLEGE OF AGRICULTURE, FORESTRY, AND HOME ECONOMICS

The program of courses in Home Economics (with course numbers and titles, credits, prerequisites, schedule of hours and days, etc.) is given in the College of Agriculture, Forestry, and Home Economics section of this bulletin.

A statement at the beginning of that program tells which courses are open to students of the colleges on the Minneapolis campus and under what conditions the students may register for them.

Science, Literature, and the Arts students who want to take Courses 1, 2, 10, 20, 30, 31, 34, 56A-56B, 120 may register for them on their regular registration days provided they get written permission in 106 Folwell Hall.

Science, Literature, and the Arts students who want other courses in home economics should inquire at 106 Folwell Hall as to how and when they may register for those courses.

HOW TO STUDY

1f§	How To Study (2 cred.; prereq. permission of instructor. See § footnote.)				
	Sec. 1	I	MWF	104J	Mr. Stacey
	2	II	MWF	104J	and others
1w§	How To Study (See 1f)				
	Sec. 1	I	MWF	104J	Mr. Stacey
	2	II	MWF	104J	and others
1s§	How To Study (See 1f)				
		I	MWF	104J	Mr. Stacey and others

§ Registration is limited. Written permission from the instructor is necessary for admission. For Course 1f, students should inquire at 106 Folwell Hall; for Courses 1w and 1s, at 112 Psychology Building.

HUMAN ANATOMY

See Anatomy (Human), page 18.

HUMAN PHYSIOLOGY

See Physiology, page 81.

HUMANITIES

No.	Title	Hour	Day	Bldg.	Instructor
1f	Humanities in the Modern World I—The intellectual, political, and economic revolutions which gave humanity its modern world. Period: from about 1776 to about 1800. Authors: Voltaire, Rousseau, Burke, Paine, Burns, Blake, Adam Smith, Malthus. One historical novel. (5 cred.; no prereq.)				
	Sec. 1	III	MTWThF	311F	Mr. McClosky
	2	VII	MTWThF	2P	Mr. Castell
2w	Humanities in the Modern World II—Europe versus Napoleon; the romantic movement; critics of laissez-faire; liberalism and nationalism. Period: from about 1800 to about 1870. Authors: Goethe, Wordsworth, Schopenhauer, Dickens, Marx, Mill, Browning, Whitman. One historical novel. One biography (5 cred.; no prereq.)				
	Sec. 1	III	MTWThF	311F	Mr. McClosky
	2	VII	MTWThF	2P	Mr. Castell
3s	Humanities in the Modern World III—The impact of evolution; socialism and imperialism; religion and morals in a changing world; the wars and totalitarianisms. Period: from about 1870 to the present. Authors will be chosen from among the following: Darwin, Marx, Renan, Nietzsche, Freud; Dostoievsky, Zola, Butler, Tolstoy; Anatole France, Ibsen, Shaw, O'Neill; Kipling, Sandburg, T. S. Eliot (5 cred.; no prereq.)				
	Sec. 1	III	MTWThF	311F	Mr. McClosky
	2	VII	MTWThF	2P	Mr. Castell
5f-6w-7s	The European Heritage: from Homer to Molière—Great books as ideal representations of civilized man by himself, taken in association with notable works of fine art. Stress will be laid on ideals and forces of continuing importance for us in present-day civilization.				
5f	The Greek Heritage—The heroic age of legend—"Men like gods"; the golden age of Athens—tragedy, the concepts of goodness and beauty, the struggle for the state; the age of reason—the concepts of reason, justice, order. Selected readings in the historians and Aristotle; longer readings in Homer, Plato, the dramatists. Greek architecture and sculpture (5 cred.; no prereq.)	III	MTWThF	322F	Mr. Beach
6w	The Roman and the Medieval Heritage—Roman jurisprudence and organization; epicureanism and stoicism. Selections from Lucretius, Epicetetus, Marcus Aurelius. Medieval faith, theocracy, chivalry, monasticism. Selections from St. Augustine, St. Thomas Aquinas, the Rule of St. Benedict. Longer readings from Dante, Chaucer. Early religious painting, ecclesiastical and feudal architecture (5 cred.; no prereq.)	III	MTWThF	322F	Mr. Beach
7s	The Renaissance Heritage—Humanism; magnificence and individualism; secularism, scepticism, political realism; the protestant strain; modern science and scientific method. Selected readings in Machiavelli, Castiglione, Valla, Petrarch, More, Luther, Calvin; longer readings in Montaigne, Cervantes, Shakespeare, Milton, Bunyan, Molière. Renaissance architecture, sculpture and painting: Dürer, Raphael, Michelangelo, Leonardo, Velasquez, Rubens, Rembrandt (5 cred.; no prereq.)	III	MTWThF	322F	Mr. Beach

ITALIAN

See Romance Languages, page 95.

JOURNALISM

Major advisers in the College of Science, Literature, and the Arts—Professors Casey, Barnhart, Charnley, and Nafziger; Assistant Professors Ford and Kildow.

Major sequence in the College of Science, Literature, and the Arts—Courses 51, 52 (for all except women students with advertising minors), 55, 69 or 73, 101 (for all except women students with advertising minors), 109-110, 112, 140-141, and 9 additional credits to be chosen in conference with the adviser. Students of marked ability may substitute for these 9 additional credits in journalism Senior College courses in other departments with the approval of the major adviser in journalism. Women students who do not take Courses 52 and 101 must substitute other journalism courses of equivalent hours.

Modifications of this sequence will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

The additional credits will be arranged to prepare students for the following types of journalistic work: (1) metropolitan journalism—news, editorial, business management, advertising, circulation, or press association work; (2) small daily and weekly journalism—editing and management; (3) journalism-advertising; (4) magazine writing, magazine editing; editorial direction and business management of trade, technical, and professional journals; (5) radio news processing and radio script writing; (6) public relations; (7) agricultural journalism—consult minor sequence requirements below and the Bulletin of the College of Agriculture, Forestry, and Home Economics; (8) teacher training in journalism—consult minor sequence requirements below and the Bulletin of the College of Education.

For students with major interest in radio news editing, radio script writing, radio advertising and like work, a special sequence of journalism courses, supplemented by selected speech courses, is provided.

Freshmen who are interested in journalism or those who think that they may enter the school at a later time are urged to discuss their course programs with members of the journalism staff.

Students must have maintained a C average in all work to enter any journalism course, except by consent of the director of the school.

(Prerequisites: Courses 13, 14-15, or 12, 15; and Composition 27-28.) In addition to these prerequisites, selections from among the following Junior College courses are recommended as providing, in most cases, a sound foundation for a major in journalism: Political Science 1-2-3, 7 and 25; Sociology 1 and 6; Psychology 1-2; History 20-21-22 or 1-2-3; Social Science 1-2-3; Natural Science 1-2-3; Humanities (two or more quarters); Geography 11 and 35; English 37-38-39; Economics 6-7 (especially recommended for students specializing in journalism-business management and journalism-advertising).

Minor sequence in advertising—For journalism majors interested in supplementing their journalism-advertising courses, the following minor sequence is recommended: B.A. 77, 88, and 194; Psychology 56; Journalism 65 and Drawing 64. Junior College prerequisites for these courses are Psychology 1-2 and Economics 5 and 6-7. Some modification of this minor sequence is permitted on consent of the director of the School of Journalism, altho a minimum of 15 hours of Senior College work in this minor is required.

Several courses offered by the School of Journalism give special attention to war-time problems. Among them are 92, 111, and 130-131. Other courses of general interest are 5 and 103.

Adviser for students in all colleges—Professor Casey.

Accelerated sequence—For the duration of the war, the School of Journalism offers an accelerated program to prepare selected students for work in journalism. It will give such students a necessary minimum of specialized training for junior positions in newspaper and magazine writing and editing, advertising, and radio writing.

The program will be open to three classes of applicants: (1) Men and women more mature than the average undergraduate, either with or without college training; (2) Students now enrolled in the University; (3) High school graduates with special aptitudes. Students may qualify for enrolment in the program on the basis of special tests. Those interested should consult an adviser in the School of Journalism.

Courses open to students in the accelerated program are marked with an asterisk in the class schedule below.

Minor sequence—For students in the College of Agriculture, Forestry, and Home Economics, the Institute of Technology, and the School of Business Administration: Courses 13, 41, 69, and 6 additional credits in Senior College journalism courses, to be chosen in conference with the adviser. Courses 66, 78, 92, 110, and 111 are recommended.

Minor sequence in the College of Education—Courses 13, 41, 69, 82, and at least 6 additional credits in Senior College journalism courses.

Course Ed.T. 74 offered by the School of Journalism and listed under "Methods and Directed Teaching" in the program of the College of Education (in this bulletin) is also required in this sequence.

Fees—Students registered for any journalism course, except Course 5, are required to pay a general fee of \$1 a quarter, regardless of the number of courses pursued. Courses 41, 51-52, 55, 58, and 66 require laboratory fees in addition to the equipment fee of \$1.

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
5s*	The American Newspaper—A survey of the history, organization, and methods of contemporary journalism and an analysis of the relation of newspapers to their readers (3 cred.; 3rd qtr. fr., soph., with average of C, jr., sr.; not open to journalism majors; no prereq.)	II	TThS	420MurH	Mr. Ford
12w*†	Newspaper Reporting (5 cred.; substantially equivalent to 13, 14; soph., jr., sr., with average of C; prereq. Eng. A-B-C or Comp. 4-5-6 or exemption from English requirement, and consent of instructor)	Lect. VI Lab. VI, VII, VIII	MW	308MurH	Mr. Kildow
13f*	Introduction to Reporting (for majors) (3 cred.; soph., jr., sr., with average of C; prereq. Eng. A-B-C or Comp. 4-5-6 or exemption from English requirement)	Sec. 1 VI, VII, VIII 2 I, II, III	MW	212MurH	Mr. Kildow Mr. Charnley
13s*	Introduction to Reporting (for majors) (See 13f)	VII, VIII, IX	TTh	212MurH	Mr. Mickelson
13f	Introduction to Reporting (for minors in the College of Agriculture, Forestry, and Home Economics, College of Education, Institute of Technology, and School of Business Administration) (3 cred.; soph., jr., sr., with average of C; prereq. Eng. A-B-C or Comp. 4-5-6 or Rhetoric 1-2-3 or exemption from English requirement)	I	MWF	308MurH	Mr. Ford

* Open to students enrolled in the accelerated program.

† This course is intended only for winter quarter transfer students and others who for exceptional reasons cannot take 13 and 14. It should be followed by 15.

No.	Title	Hour	Day	Bldg.	Instructor
14w-15s*†	Newspaper Reporting (for majors) (6 cred.; soph., jr., sr.; prereq. for 14, C average in 13 and in all work, or consent of instructor, and Comp. 27-28‡; for 15, C average in 13-14 or 12 and in all work, or consent of instructor, and Comp. 27-28‡)				
	Sec. 1 (winter)	VII, VIII, IX	MW	212MurH	Mr. Mickelson
	2 (winter)	I, II, III	TTh	212MurH	Mr. Charnley
	Sec. 1 (spring)	VI, VII, VIII	MW	212MurH	Mr. Nafziger
	2 (spring)	I, II, III	TTh	212MurH	Mr. Charnley
15f*	Newspaper Reporting (for majors) (See 14w-15s)	VII, VIII, IX	TTh	212MurH	Mr. Mickelson
41w†††	Editing for Nonmajors (not open to S. L. and A. students without permission of the director of the School of Journalism) (3 cred.; jr., sr.; prereq. 12 or 13)				
	Lect.	IV	MW	420MurH	Mr. Ford
	Lab. Sec. 1	VI, VII	Th	206MurH	
	2	VIII, IX	M	206MurH	
	3	I, II	F	206MurH	
<i>Senior College Courses</i>					
Senior College courses in the School of Journalism are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.					
51f*†-52w‡	News Editing (6 cred.; jr., sr.; prereq. 15)				
	Lect.	IV	T	308MurH	Mr. Kildow
	Lab. (Fall quarter)				
	Sec. 1	VIII, IX	M	206MurH	Mr. Nafziger
	2	VII, VIII	T	206MurH	Mr. Kildow
	3	VII, VIII	Th	206MurH	Mr. Wilson
	Lab. (Winter quarter)				
	Sec. 1	VIII, IX	TTh	206MurH	Mr. Mickelson
	2	VII, VIII	WF	206MurH	Mr. Nafziger
51s*†	News Editing (3 cred.; jr., sr.; prereq. 12 or 14)				
	Lect.	IV	M	308MurH	Mr. Kildow
	Lab. Sec. 1	VII, VIII	M	206MurH	Mr. Wilson
	2	II, III	T	206MurH	Mr. Wilson
	3	VII, VIII	Th	206MurH	Mr. Nafziger
55f,w,s*††	Advertising and Newspaper Typography (3 cred.; jr., sr.; prereq. 15, or 13 and 41)				
	Lect. (Fall and winter)	VII	M	311MurH	Mr. Barnhart
	Lect. (Spring)	II	M	311MurH	Mr. Barnhart
	Lab. Sec. 1	VIII, IX	MW	315,320MurH	
	2	VI, VII	TTh	315,320MurH	
58w‡	Advanced Typography (2 cred.; jr., sr.; prereq. 55 and consent of instructor)	Ar	Ar	315,320MurH	Mr. Barnhart
60-61-62	<i>The Weekly Newspaper</i> (9 cred.; jr., sr.; prereq. 15) (Not offered)				
63f*	Development of Radio Broadcasting—Historical and economic growth of broadcasting; government regulation; radio and the press; radio as a social factor; aspects of listenership; broadcasting in other countries (2 cred.; jr., sr. journalism majors and speech-radio majors; prereq. 15 for journalism majors, 13 for speech-radio majors)	VII	TTh	302MurH	Mr. Charnley

* Open to students enrolled in the accelerated program.

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$2 is charged for this course.

†† A fee of \$1 per credit is charged for this course.

††† A fee of \$1 is charged for this course.

§ May be taken at the same time.

No.	Title	Hour	Day	Bldg.	Instructor
65f*‡	Graphic Arts: Processes—Discussion of reproduction processes—letter press, planography, intaglio; also engravings, inks, paper stock, binding, and miscellaneous printing operations (3 cred.; jr., sr.; prereq. consent of major adviser in the School of Journalism or in the School of Business Administration)	IV	MWF	105MurH	Mr. Barnhart
66s*‡	News Photography—The analysis, use, and influence of the news picture, with elementary instruction in the use of the news camera (3 cred.; jr., sr.; prereq. consent of instructor)	VII	M	308MurH	Mr. Kildow
	Lect.	VII, VIII	WF	20MurH	
67f,w,s*	Radio News Writing (3 cred.; jr., sr.; prereq. 15)	VII	WF	302MurH	Mr. Mickelson
	Lect.	Ar	Ar	202MurH	Mr. Charnley
68s*	Problems in Radio Writing (3 cred.; jr., sr.; prereq. 52 for men, 51 for women, and consent of instructor)	VI	MWF	302MurH	Mr. Charnley
69s*	Newspaper and Magazine Articles (3 cred.; jr., sr.; prereq. 15 or 41)	I	MWF	311MurH	Mr. Kildow
70	<i>Business and Specialized Journalism</i> (3 cred.; jr., sr.; prereq. 15 or 69, or consent of instructor) (<i>Not offered</i>)				
73f*-74w	Magazine Writing and Editing (6 cred.; jr., sr.; prereq. for 73, 15; for 74, 73 and consent of instructor)	VI	MWF	302MurH	Mr. Charnley
EdT74	Teachers Course in Journalism (This course is listed among the College of Education courses on page 135 of this bulletin. It is not regularly open to Science, Literature, and Arts students.)				
76f	Critical Writing (3 cred.; jr., sr.; prereq. consent of instructor)	II	TThS	311MurH	Mr. Ford
77	<i>Legal Regulations Affecting the Press</i> (3 cred.; jr., sr.; prereq. 51-52) (<i>Not offered</i>)				
78f	Public Relations (3 cred.; jr., sr.; prereq. 15)	I	MWF	311MurH	Mr. Kildow
82s	Supervision of School Publications (3 cred.; jr., sr.; prereq. 41 or 51-52)	VI	MWF	420MurH	Mr. Kildow
92s	Wartime Propaganda and Censorship—The purpose, structure, and functioning of the wartime public relations and propaganda agencies of the national government, the armed forces, etc. Restrictions on naval, military, and other information; wartime legal restrictions on freedom of expression (2 cred.; jr., sr. of all colleges who have not completed 130 or 131; no prereq.)	VII	TTh	105MurH	Mr. Casey, Mr. Charnley
93f*	Weekly Editorial Administration (3 cred.; jr., sr.; prereq. 51 or concurrent registration in 51)	II	TThS	308MurH	Mr. Barnhart
94w*	Newspaper Advertising (3 cred.; jr., sr.; prereq. 51)	II	TThS	308MurH	Mr. Barnhart
95s	Circulation and Newspaper Management (3 cred.; jr., sr.; prereq. 51)	II	TThS	308MurH	Mr. Barnhart
96	<i>The Journalism of Finance and Commerce</i> (3 cred.; jr., sr.; prereq. 15 and 10 cred. in economics or business administration) (<i>Not offered</i>)				
99f,w,s	Readings in Journalism (Cred. ar., not to exceed 3; jr., sr.; prereq. consent of the director of the school)	Ar	Ar	Ar	Staff
101w	The Reporting of Public Affairs (3 cred.; jr., sr., grad.; prereq. 51-52 and 9 cred. in political science)	III	TThS	311MurH	Mr. Nafziger
103s	Literary Aspects of Journalism (3 cred.; jr., sr., grad.; prereq. consent of instructor)	IV	MWF	311MurH	Mr. Ford

* Open to students enrolled in the accelerated program.

‡ A fee of \$5 is charged for this course.

§ This course is one of the three related courses of special interest to students of journalism and advertising. The other two, listed elsewhere in this bulletin, are Drawing 64w, Graphic Arts, and Business Administration 194s, Advanced Advertising Procedure.

LIBRARY METHODS

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No.	Title	Hour	Day	Bldg.	Instructor
104s	Advanced Newspaper Advertising (2 cred.; jr., sr., grad.; prereq. 52, 94, and consent of instructor)	VIII	TTh	420MurH	Mr. Barnhart
109w-110s	History of Journalism (6 cred.; jr., sr., grad.; prereq. 15)	III	MWF	105MurH	Mr. Ford
111f	International Communications and the Foreign Press—How the world's peace and war news is gathered and disseminated; the press and foreign affairs; the foreign press (3 cred.; jr., sr., grad.; prereq. 51 and a history or political science course in international relations, or consent of instructor)	III	MWF	311MurH	Mr. Nafziger
112s	Current Newspaper Problems (3 cred.; sr., grad.; prereq. 140-141)	VI	TTh	105MurH	Mr. Casey
114w	The Influence of the Newspaper (3 cred.; jr., sr., grad.; prereq. 15 or 41)	VII	T		and staff
115s	Communication Media Analysis—Methods developed in recent years by professional media analysts and government experts for the analysis of the content of newspapers, radio broadcasts, periodicals, and motion pictures. Reader and audience-interest survey techniques (3 cred.; jr., sr., grad.; prereq. 51 or consent of instructor)	II	TThS	311MurH	Mr. Ford
130f-131w	Communication Agencies and Public Opinion (6 cred.; jr., sr., grad.; prereq. 15 cred. in the social studies and psychology)	III	MWF	311MurH	Mr. Nafziger
140f-141w†	Interpretation of Contemporary Affairs (6 cred.; sr., grad.; prereq. 109-110 and 20 cred. in the social studies or consent of major adviser in journalism)	II	MWF	311MurH	Mr. Casey
	Lect.	VI	TTh	105MurH	Mr. Casey, Mr. Charnley, Mr. Nafziger
	Rec. Sec. 1	IV	T	302MurH	Mr. Casey
	2	IV	T	311MurH	Mr. Charnley
	3	VII	T	311MurH	Mr. Nafziger

For Graduate Students Only

205f,w,s	Topics in International News Communications (3 cred.; seminar for grad. students; prereq. consent of director of the school)	Ar	Ar	405MurH	Mr. Nafziger
210f,w,s	Research in Newspaper Problems (2 cred.; seminar course for grad. students; prereq. consent of director of the school)	Ar	Ar	405MurH	Mr. Casey, Mr. Nafziger

LATIN

See Classics, page 34.

LIBRARY METHODS

Note—For the special course in library training see the Bulletin of the College of Science, Literature, and the Arts. For professional courses in library instruction see the program of the Division of Library Instruction, page 9.

1f, w‡	Use of Books and Libraries—Use of catalog, reference books, indexes, and bibliographies, for personal and class purposes. Preparation of reference lists (2 cred.; fr., soph. only; no prereq.)	II	MW	3Lib	Mr. Russell
1s‡	Use of Books and Libraries (See 1f)	II	MW	3Lib	Miss Moen

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ For students in the College of Science, Literature, and the Arts. Others must obtain a special card from the Junior College office, 106 Folwell Hall.

LINGUISTICS AND COMPARATIVE PHILOLOGY

Major adviser in the College of Science, Literature, and the Arts—Professor Ogle.
Major sequence in the College of Science, Literature, and the Arts—Normally a major will consist of 27 credits in the courses carrying Senior College credit, listed below, chosen after consultation with adviser.

ANTHROPOLOGY

No.	Title	Hour	Day	Bldg.	Instructor
105f	Elements of Language—A survey of speech sounds followed by practice in phonetic recording. Analysis of phonetic patterns in language. Practical work in dictation of Chippewa, Dakota, Finnish, and other languages (3 cred.; jr., sr., grad.; no prereq.)	II	TThS	6WeH	Mr. Mandelbaum

CLASSICS

106w	General Linguistics (3 cred.; jr., sr., grad.; prereq. any two courses numbered above 50 in a foreign language)	Ar	Ar	Ar	Mr. Ogle
107s	Cultural Aspects of Language (3 cred.; jr., sr., grad.; prereq. any two courses numbered above 50 in a foreign language)	Ar	Ar	Ar	Mr. Ogle
133s	Vulgar Latin (Development of Latin into Romance) (3 cred.; jr., sr., grad.; open to advanced students of Latin or a Romance language with the consent of the instructor)	II	MWF	109F	Mr. Ogle

ENGLISH

100f	Old English (4 cred.; jr., sr., grad.; prereq. 6 cred. above 50)	II	TWThF	204F	Ar
102w	Old English Poetry (3 cred.; jr., sr., grad.; prereq. 100)	II	MWF	204F	Ar
103s	Beowulf (3 cred.; jr., sr., grad.; prereq. 100)	II	MWF	204F	Ar
160-161	<i>History of the English Language</i> (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50, including 100) (<i>Not offered</i>)				
165f	The Historical Study of Modern English (3 cred.; jr., sr., grad.; prereq. 6 cred. above 50)	VI	MWF	302F	Ar
174	<i>American Usage</i> (3 cred.; jr., sr.; prereq. 6 cred. above 50) (<i>Not offered</i>)				

FRENCH

171f-172w-173s†	History of French Language (3 cred.; jr., sr., grad.; prereq. one year of Latin or permission of instructor)	Ar	Ar	203F	Mr. Brackney
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GERMAN

110-111-112	<i>Introduction to Germanic Philology</i> (9 cred.; sr., grad.; prereq. 68 and 6 cred. above 59) (<i>Not offered</i>)				
192	<i>Gothic</i> —Introduction to Germanic linguistics (The same as Scandinavian 192) (4 cred.; sr. with completed major sequence, grad.) (<i>Not offered</i>)				
193	<i>Gothic Texts</i> (2 cred.; sr., grad.; prereq. 192) (<i>Not offered</i>)				
194	<i>Old Saxon</i> (3 cred.; sr., grad.; prereq. 192) (<i>Not offered</i>)				
197f-198w-199s	Middle High German (9 cred.; sr. with completed major sequence, grad.)	Ar	Ar	Ar	Mr. Reichardt

SCANDINAVIAN

185	<i>History of Scandinavian Languages</i> (3 cred.; sr., grad.; prereq. Scand. 4-5-6 or 10-11-12 or at least one Germanic language) (<i>Not offered</i>)				
195	<i>Introduction to Old Norse Language and Literature</i> (The same as German 195) (4 cred.; sr., grad.; prereq. 192 or permission of instructor) (<i>Not offered</i>)				
196	<i>Eddic Poetry</i> (The same as German 196) (3 cred.; sr., grad.; prereq. 195) (<i>Not offered</i>)				

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

LINGUISTICS

No.	Title	Hour	Day	Bldg.	Instructor
121-122-123†	<i>Introduction to Arabic Grammar and Reading</i> (9 cred.; jr., sr., grad.; prereq. two courses above 50 in any foreign language) (<i>Not offered</i>)				
131-132	<i>Introduction to Sanscrit</i> (4 cred.; sr. with permission of instructor, grad.; prereq. at least two Senior College courses in any Indo-European language) (<i>Not offered</i>)				
134-135-136	<i>Introduction to Old Irish Language and Literature</i> (9 cred.; sr. with permission of instructor, grad.; prereq. at least two Senior College courses in any Indo-European language) (<i>Not offered</i>)				

Primarily for Graduate Students

CLASSICS

242w	Historical Latin Grammar (3 cred.)	VIII, IX	Th	110F	Mr. Cram
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FRENCH

201f-202w-203s	Old French Phonology and Morphology (6 cred.)				
	Ar		Ar	203F	Mr. Brackney
204f-205w-206s	Reading in Old French Literature (6 cred.)				
	Ar		Ar	203F	Mr. Brackney

GERMAN

209-210-211	<i>Old High German</i> (9 cred.; sr. with completed major sequence, grad.) (<i>Not offered</i>)				
218-219-220	<i>Seminar: Runic Inscriptions</i> (9 cred.; grad.) (The same as Scandinavian 230-231-232) (<i>Not offered</i>)				

SPANISH

241-242-243	<i>Old Spanish Philology</i> (6 cred.) (<i>Not offered</i>)				
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MATHEMATICS

Major advisers in the College of Science, Literature, and the Arts—Professors Brink, Hart, and Jackson.

Major sequence in the College of Science, Literature, and the Arts—Courses 50, 51, 62, 105; and either 15 additional credits in Senior College courses, other than 70, or 6 additional credits in Senior College courses, other than 70, together with 10 credits of Physics 101-103-105 or 9 credits of Biostatistics (Public Health 110, 120, 130, 140).
(Prerequisites: Mathematics 6, 7, 30.)

Modifications of this sequence will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

Major adviser in the College of Education—Associate Professor Underhill.

Requirements for a teacher's certificate—Major recommendation: entrance credit in solid geometry or its equivalent; Courses 50, 51, and 8 additional credits in courses numbered above 51.

Minor recommendation: entrance credit in solid geometry or its equivalent. Course 50 and 3 additional credits in courses numbered above 50.

Mathematics 20 is strongly recommended as an elective, to be taken preferably in the freshman or sophomore year, in connection with either a major or minor recommendation.

Placement tests—In each of Courses 1, 6, 8, and 15 a placement test will be given at some time within the first two weeks of the quarter. Any student who fails in the test in Course 1 may be required to drop the course and to review his elementary mathematics before taking college mathematics. Any student who offers less than one

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

year of high school higher algebra as a substitute for Course 1 and who fails the placement test given in Course 6, 8, or 15 will be required to take Course 1 before taking more advanced mathematics. A student who has had a complete year of elementary algebra, and a corresponding course in higher algebra for one-half year, should be able to pass the placement test in Course 6, 8, or 15.

Prerequisites for any course in mathematics may be waived if a petition for registration in the course is approved by the department chairman.

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
1f*	Higher Algebra (5 cred.; prereq. one yr. of elem. algebra§; open for credit to any student offering not more than one-half yr. of high school higher algebra for entrance)				
	Sec. 1	I	MTWThF	209EdH	Ar
	2	III	MTWThF	213F	Ar
	3	VI	MTWThF	105F	Ar
In choosing one of the sections of the above course the student should be guided by the schedule of hours for its winter quarter continuation. The fall-winter sequences are: At I hour, 1f-6w, 1f-8w, and 1f-15w; at III hour, 1f-6w; at VI hour, 1f-6w.					
1w*	Higher Algebra (See 1f)				
	Sec. 1	IV	MTWFS	102F	Ar
	2	VI	MTWThF	105F	Ar
1s*	Higher Algebra (See 1f)				
	Sec. 1	I	MTWThF	301F	Ar
	2	VII	MTWThF	101F	Ar
6f**	Trigonometry (5 cred.; prereq. plane geometry and Course 1 or high school higher algebra§; open for credit even to students offering high school trigonometry for entrance)				
	Sec. 1	II	MTWThF	101F	Ar
	2	III	MTWThF	125F	Ar
6w**	Trigonometry (See 6f)				
	Sec. 1	I	MTWThF	124F	Ar
	2	III	MTWThF	213F	Ar
	3	VI	MTWThF	104F	Ar
6s**	Trigonometry (See 6f)				
	Sec. 1	IV	MTWFS	102F	Ar
	2	VI	MTWThF	105F	Ar
7f††	College Algebra (5 cred.; prereq. 6, or high school trigonometry if approved by the department chairman)				
	Sec. 1	II	MTWThF	124F	Ar
	2	VII	MTWThF	102F	Ar
7w†††	College Algebra (See 7f)				
	Sec. 1	II	MTWThF	101F	Ar
	2	III	MTWThF	125F	Ar
7s†††	College Algebra (See 7f)				
	Sec. 1	III	MTWThF	102F	Ar
	2	VI	MTWThF	102F	Ar
8f†††	Commerce Algebra—College algebra including logarithms (5 cred.; primarily for pre-business students* but open also to others; prereq. 1, or high school higher algebra§)				
		VII	MTWThF	209EdH	Ar
8w*††	Commerce Algebra (See 8f)				
		I	MTWThF	209EdH	Ar
8s*††	Commerce Algebra (See 8f)				
		VI	MTWThF	104F	Ar
10s	Spherical Trigonometry (2 cred.; prereq. 6 or high school trigonometry if approved by the department chairman, and solid geometry or registration in solid geometry)				
		IV	WF	104F	Ar

* Prebusiness students who elect mathematics to meet the requirement of 10 credits in mathematics or laboratory science, should take 1 and 8 if they have not had high school higher algebra, and 8 and 20 if they have had high school higher algebra.

§ Read the announcement about placement tests which precedes the heading Junior College Courses.

† No student may receive credit for both Courses 7 and 8.

†† No student may receive credit for both Course 6-7 and Course 15-16. If a student has taken Course 6 and wants more mathematics, he should take Course 7; if he has taken Course 15-16 and wants more mathematics, he should consult the chairman of the department, Room 119 Folwell Hall.

No.	Title	Hour	Day	Bldg.	Instructor
14w	Solid Geometry (3 cred.; prereq. plane geometry and higher algebra)	IV	MWF	102F	Ar
15f-16w**	Elementary Mathematical Analysis—A course for premedical and other students who desire a survey of college mathematics including trigonometry, algebra, and calculus with emphasis on fundamental ideas rather than on technical preparation for more advanced courses in mathematics (10 cred.; prereq. plane geometry and Course 1 or high school higher algebra§)	III	MTWThF	105F	Ar
15w-16s**	Elementary Mathematical Analysis (See 15f-16w)-	I	MTWThF	102F	Ar
20w*	Mathematics of Investment (5 cred.; prereq. 8, or 6 and 7, or 15 and 16)	VII	MTWThF	209EdH	Ar
20s*	Mathematics of Investment (See 20w)	I	MTWThF	209EdH	Ar
21	<i>Introduction to the Mathematics of Life Insurance</i> (3 cred.; prereq. 20) (<i>Not offered</i>)				
30f	Analytic Geometry (5 cred.; prereq. 6 and 7 or 6 and 8, or 15 and 16)	I	MTWThF	101F	Ar
30w	Analytic Geometry (See 30f)	II	MTWThF	124F	Ar
30s	Analytic Geometry (See 30f)				
	Sec. 1	II	MTWThF	101F	Ar
	2	III	MTWThF	105F	Ar
G.E.70f,w,s	The Slide Rule (1 cred.; prereq. Math. 6 or 8, or 15 and 16) (For the schedule of hours and days see General Engineering 70 in the Bulletin of the Institute of Technology)				

Senior College Courses

Courses 50, 51, 105 are open to Junior College students who have an average grade of at least C in the prerequisite courses. Other Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

50f	Calculus I—Differential Calculus (5 cred.; jr., sr.; prereq. 30)	III	MTWThF	104F	Ar
50w	Calculus I—Differential Calculus (See 50f)	I	MTWThF	101F	Ar
50s	Calculus I—Differential Calculus (See 50f)	II	MTWThF	102F	Ar
51w	Calculus II—Integral Calculus (5 cred.; jr., sr.; prereq. 50)	III	MTWThF	104F	Ar
51s	Calculus II—Integral Calculus (See 51w)	I	MTWThF	101F	Ar
60f	Synthetic Metric Geometry (3 cred.; jr., sr.; prereq. 30)	VII	MWF	104F	Ar
62w	Introduction to the Theory of Equations (3 cred.; jr., sr.; prereq. 50 or registration in 50 and consent of instructor)	VII	MWF	104F	Ar
70	<i>History of Elementary Mathematics</i> (3 cred.; jr., sr.; prereq. 30) (<i>Not offered</i>)				
102f-103w	Advanced Analytic Geometry (6 cred.; jr., sr., grad.; prereq. 51)	VI	MWF	108F	Mr. Bussey
105f	Intermediate Calculus (5 cred.; jr., sr., grad.; prereq. 51)	II	MTWThF	102F	Ar
105s	Intermediate Calculus (See 105f)	III	MTWThF	104F	Ar
106f	Differential Equations (3 cred.; jr., sr., grad.; prereq. 51)	IV	MWF	101F	Mr. Underhill
107w-108s	Advanced Calculus (6 cred.; jr., sr., grad.; prereq. 105)	IV	MWF	101F	Mr. Underhill

* Prebusiness students who elect mathematics to meet the requirement of 10 credits in mathematics or laboratory science, should take 1 and 8 if they have not had high school higher algebra, and 8 and 20 if they have had high school higher algebra.

§ Read the announcement about placement tests which precedes the heading Junior College Courses.

** No student may receive credit for both Course 6-7 and Course 15-16. If a student has taken Course 6 and wants more mathematics, he should take Course 7; if he has taken Course 15-16 and wants more mathematics, he should consult the chairman of the department, Room 119 Folwell Hall.

No.	Title	Hour	Day	Bldg.	Instructor
109	<i>Theory of Numbers</i> (3 cred.; jr., sr., grad.; prereq. 51) (Not offered)				
110f,w,s	A Tutorial Course in Advanced Mathematics. Qualified students whose needs are not met by courses offered may make special arrangements for obtaining, through reading and conferences, the content of other graduate courses regularly offered by the department (3 to 6 cred.; jr., sr., grad.; prereq. 51)				
		Ar	Ar	Ar	Ar
113	<i>Mathematics of Exterior Ballistics</i> (3 cred.; jr., sr., grad.; prereq. 105 or 106 or equiv.) (Not offered)				
115	<i>Differential Geometry</i> (3 cred.; jr., sr., grad.; prereq. 136) (Not offered)				
118-119-120	<i>Vectors and Matrices</i> (9 cred.; jr., sr., grad.; prereq. 51) (Not offered)				
121f-122w-123s	<i>Mathematical Theory of Statistics</i> (9 cred.; jr., sr., grad.; prereq. 51)	VIII	MWF	105F	Mr. Jackson
125	<i>Theory of Geometrical Constructions</i> (3 cred.; jr., sr., grad.; prereq. 30) (Not offered)				
131	<i>Advanced Algebraic Theory</i> (3 cred.; jr., sr., grad.; prereq. 62 or 105) (Not offered)				
136a	<i>Solid Analytic Geometry</i> (3 cred.; jr., sr., grad.; prereq. 50 or registration in 50)	VI	MWF	108F	Mr. Bussey
137a	<i>Advanced Theory of Equations</i> (3 cred.; jr., sr., grad.; prereq. 51, 62)	VII	MWF	104F	Ar
140	<i>Projective Geometry</i> (3 cred.; jr., sr., grad.; prereq. 51 or consent of instructor) (Not offered)				
142	<i>Theory of Invariants</i> (3 cred.; jr., sr., grad.; prereq. 131 or 137) (Not offered)				
144-145-146	<i>Topics in Analysis</i> (9 cred.; jr., sr., grad.; prereq. 51) (Not offered)				
149	<i>Introduction to Group Theory</i> (3 cred.; jr., sr., grad.; prereq. 51, 62) (Not offered)				

For Graduate Students Only

-206f-207w-208s	<i>Theory of Functions</i> (9 cred.; grad.; prereq. 108)	II	MWF	104F	Mr. Hart
245-246-247	<i>Advanced Theory of Functions</i> (9 cred.; grad.; prereq. 208) (Not offered)				
271f-272w-273s	<i>Theory of Linear Differential and Integral Equations</i> (9 cred.; grad.; prereq. 206 or registration in 206)	II	TThS	104F	Mr. Brink

NOTE—Some of the courses listed in the Graduate School Bulletin are open to properly qualified juniors and seniors. For further information consult the chairman of the Department of Mathematics.

MILITARY SCIENCE AND TACTICS

See the program of Military Science and Tactics, page 11.

MUSIC

To secure the degree of bachelor of arts with major in music, a student must fulfill the requirements of both the Junior and Senior Colleges as stated in the Bulletin of the College of Science, Literature, and the Arts, securing 144 credits in courses other than practical music (piano, voice, etc., Courses 11 to 27). During the first two years he will register for English A-B-C or Composition 4-5-6, unless exempt from the requirement in English; foreign language; History 11-12-13; Psychology 1-2 and 4-5; and the following courses in music: 1T-2T-3T, 4T-5T-6T, 7-8, 34-35-36.*

He must earn thirty credits in practical music selected from Courses 11 to 27,§ the number of credits in his major instrument to be determined by the department. At the end of the sophomore year a comprehensive examination must be taken to insure that the student is prepared for Senior College work.

Major advisers in the College of Science, Literature, and the Arts—Professors Oberg and Ferguson; Associate Professor Hull.

* All students majoring in organ or piano who took the Ear Training and Harmony offered prior to fall, 1944 will be required to take Keyboard Harmony, 37-38-39.

§ Students may not take special examinations in practical music (Music 11-27) for work done elsewhere while they are in residence at the University.

Major sequences in the College of Science, Literature, and the Arts—

- A. Courses 50-51-52, 53-54-55, 56-57-58, 60-61-62 or 63-64-65, 76.
 B. Courses 56-57-58, 60-61-62 or 63-64-65, 73-74-75, 76, 77-78-79.
 C. Courses 56-57-58, 60-61-62 or 63-64-65, 70-71-72, 80-81-82.

Modifications of these sequences will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

Courses recommended for students who have a minor rather than a major interest in music—**A. Practical Music**

Courses 1T-2T-3T, 34-35-36, and twelve credits in practical music (Courses 11 to 27) in the Junior College plus ten credits in practical music (Courses 11 to 27) in the Senior College.

B. History and Criticism

Courses 1T-2T-3T, 34-35-36, 76, and 50-51-52 or 53-54-55 or 56-57-58.

C. Ensemble

Two years work (12 credits) or equivalent in practical music (Courses 11 to 27), Courses 34-35-36, 76, 60-61-62 or 63-64-65, 40-41-42 or 43-44-45.

For a special curriculum in Music Education see the College of Education Bulletin. For courses in Music Education see the program of the College of Education in this bulletin.

Entrance requirements, according to the instrument selected—

Piano: Any major or minor scale in octaves, thirds, sixths, or tenths, in sixteenth notes at M.M., quarter note = 108; Bach Invention or dance from one of the suites; a sonata by Haydn or Mozart; a modern composition of equal difficulty with the sonata.

Voice: Sing on pitch with correct phrasing and musical intelligence standard songs in good English (the simpler classics recommended). Demonstrate ability to read a simple song at sight and have a knowledge of the rudiments of music. Have a promising voice. Some knowledge of piano is urgently recommended.

Violin: Major and minor scales, arpeggios; the simpler Kreutzer Etudes; a sonata by Handel, Haydn, Mozart, or Schubert; a more modern work displaying special technique peculiar to the violin.

Organ: Same as for piano.

To register in the music course a student must meet the entrance requirements in practical music before a committee of the faculty of the Music Department. This applies also to academic students who wish to elect courses in practical music for credit.

Fees—

Music 11 to 27 inclusive, Mu.Ed.225:

- | | |
|--|---------|
| 1. One individual lesson per week, 2 credits..... | \$25.00 |
| 2. Two individual lessons per week, 4 credits..... | 50.00 |
| 3. Class lessons in Courses 11C, 12C, 2 credits..... | 15.00 |

Music A-B-C and D-E-F:

- | | |
|---|-------|
| 1. One individual lesson per week, no credit..... | 25.00 |
|---|-------|

Practical music—Students may enter courses in practical music (private lessons) any quarter.

Courses numbered from 11 to 27,* inclusive, carry either 2 or 4 credits a quarter. The first twelve credits in any one of these courses count as credits in Junior College courses; additional credits count as credits in Senior College courses.

No student may count for graduation more than 36 credits in practical music.

* Students may not take special examinations in practical music (Music 11-27) for work done elsewhere while they are in residence at the University.

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
1Tf-2Tw-3Ts	Music Theory—A correlated course including Ear Training, Sight Singing, Melodic and Harmonic Dictation, Keyboard and Written Harmony (9 cred.; primarily for music majors and minors. Students must make arrangements for a placement test in the office of the Department of Music)				
	Sec. 1	II	MTWThF	3Mu	Miss Malcolm
	2	VII	MTWThF	3Mu	Miss Malcolm
4Tf-5Tw-6Ts	Music Theory—Continuation of Music Theory 1T-2T-3T (12 cred.; prereq. 3T)				
		VI	MTWThF	3Mu	Miss Malcolm
1w,s	Ear Training (2 cred.; for non-music majors; no prereq.)				
		I	MTWTh	3Mu	Miss Malcolm
6f	Harmony (3 cred.; prereq. 4-5, which was offered in 1943-44)				
		III	MWF	103Mu	Miss Malcolm
7w-8s	Counterpoint (6 cred.; soph., jr., sr.; prereq. 4-5-6)				
		III	MWF	103Mu	Mr. Ferguson
31f-32w-33s†	Music Appreciation—Cultivation of better understanding of music heard today. The course is designed for students with a general interest in music rather than for those majoring in music (6 cred.; no prereq.)				
		VII	TTh	MuAud	Mr. Oberg, Mr. Killeen, and others
34f-35w-36s‡	History of Music (6 cred.; soph., jr., sr.; no prereq.)				
	Lect.	II	MW	MuAud	Mr. Ferguson
	Rec.	II	F		
37f-38w-39s	Keyboard Harmony (3 cred.; prereq. 4-5)				
		II	TTh	103Mu	Mr. Jennings

Courses in Practical Music§

For a statement about credits and prerequisites for courses in practical music other than Courses 40-41-42 and 43-44-45, see page 71.

The first twelve credits in any one of Courses 11 to 27 count as credits in Junior College courses; additional credits count as credits in Senior College courses.

Af-Bw-Cs‡‡	Piano (No cred.; for students without entrance requirements for piano; no prereq.)				
		VIII	Th	MuAud	Ar
Df-Ew-Fs‡‡	Voice (No cred.; for students without entrance requirements in voice; no prereq.)				
		VIII	Th	MuAud	Ar
11f,w,s‡	Piano—Individual Lessons				
		VIII	Th	MuAud	Ar
					and lesson hrs. to be ar.
11Cf,w,s‡	Piano—Class Lessons*				
		VIII	Th	MuAud	Ar
					and one of the following sections
	Sec. 1	II	TTh	Mu	Ar
	2	III	TTh	Mu	Ar
	3	VI	TTh	Mu	Ar
12f,w,s‡	Voice—Individual Lessons				
		VIII	Th	MuAud	Ar
					and lesson hrs. to be ar.
12Cf,w,s‡	Voice—Class Lessons*				
		VIII	Th	MuAud	Ar
					and one of the following sections
	Sec. 1	VI	MWF	Mu	Ar
	2	VII	MWF	Mu	Ar

* Science, Literature, and the Arts major students must take individual rather than class lessons in their major instrument. Music Education majors will take individual lessons in their major and class lessons in their minor instrument. No student may take class lessons for more than 6 credits. Classes in piano will be composed of 4 students; classes in voice may be composed of 6 students.

‡ See statement of fees, page 71.

§ May be taken only with the consent of director.

¶ Students may enter any quarter.

No.	Title	Hour	Day	Bldg.	Instructor
13f,w,s†	Violin	VIII and lesson hrs. to be ar.	Th	MuAud	Ar
14f,w,s†	Viola	VIII and lesson hrs. to be ar.	Th	MuAud	Ar
15f,w,s†	Cello	VIII and lesson hrs. to be ar.	Th	MuAud	Ar
16f,w,s†	Double Bass	VIII and lesson hrs. to be ar.	Th	MuAud	Ar
17f,w,s†	Flute	VIII and lesson hrs. to be ar.	Th	MuAud	Ar
18f,w,s†	Oboe	VIII and lesson hrs. to be ar.	Th	MuAud	Ar
19f,w,s†	Clarinet	VIII and lesson hrs. to be ar.	Th	MuAud	Ar
20f,w,s†	Bassoon	VIII and lesson hrs. to be ar.	Th	MuAud	Ar
21f,w,s†	Trumpet	VIII and lesson hrs. to be ar.	Th	MuAud	Ar
22f,w,s†	French Horn	VIII and lesson hrs. to be ar.	Th	MuAud	Ar
23f,w,s†	Trombone	VIII and lesson hrs. to be ar.	Th	MuAud	Ar
24f,w,s†	Tuba	VIII and lesson hrs. to be ar.	Th	MuAud	Ar
25f,w,s†	Percussion	VIII and lesson hrs. to be ar.	Th	MuAud	Ar
26f,w,s†	Harp	VIII and lesson hrs. to be ar.	Th	MuAud	Ar
27f,w,s†	Organ	VIII and lesson hrs. to be ar.	Th	MuAud	Ar
40f-41w-42s†§§	Orchestra (6 cred.; prereq. consent of director)	IX and 7:00 p.m.	MWF	5NMA	Mr. Oberg
43f-44w-45s†**	University Chorus (3 cred.; prereq. consent of director) On the Minneapolis campus††	7:00-9:00 p.m.	T	NMA	Mr. Oberg
46f-47w-48s*†	Concert Band (3 cred.; prereq. consent of director)	4:25-5:30 p.m.	MTTh	4NMA	Mr. Killeen
					Mr. Martino

* Students may receive credit for two years of Concert Band.

† See statement of fees, page 71.

‡ Students may enter any quarter.

** Students may receive credit for two years of chorus.

†† A course entitled "University Farm Music Ensembles," which is sponsored by the College of Education and is exclusively for students of the College of Agriculture, Forestry, and Home Economics, is listed under Music Education in another part of this bulletin (page 136).

§§ Students majoring in music may earn twelve credits in orchestra.

Senior College Courses

Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

No.	Title	Hour	Day	Bldg.	Instructor
50f-51w-52s	Music of the Eighteenth Century (6 cred.; jr., sr.; prereq. 35)	VIII	MW	104Mu	Mr. Oberg
53f-54w-55s	Romantic Movement (6 cred.; jr., sr.; prereq. 35)	VII	WF	104Mu	Miss Kendall
56f-57w-58s	Bach and Beethoven (9 cred.; sr.; prereq. 34-35-36)	VI, VII	TTh	104Mu	Mr. Ferguson
59s	Technique of Voice (2 cred.; jr., sr.; prereq. 4-5 and 6 cred. in Course 12 or 12C)	VI	TTh	4Mu	Mr. Killeen
60f-61w-62s	Instrumental Ensemble (6 cred.; jr., sr.)	VI and III	TTh	103Mu	Mr. Stephens
63f-64w-65s	Vocal Ensemble (6 cred.; jr., sr.; prereq. 6 cred. in Course 12 or 12C)	II	TTh	104Mu	Miss Hull
66f-67w-68s	Advanced Vocal Ensemble (6 cred.; jr., sr.; prereq. consent of instructor)	Ar	Ar	104Mu	Mr. Killeen
70f-71w-72s	Normal Piano (6 cred.; jr., sr.; prereq. 2 years of piano)	I	MWF	103Mu	Miss Kendall
73f-74w-75s	Advanced Harmony (6 cred.; jr., sr.; prereq. 4-5-6)	IV, V	T	103Mu	Ar
76f	Form and Analysis (3 cred.; jr., sr.; prereq. 4-5 and Psy. 1-2)	II	MWF	103Mu	Mr. Stephens
77f-78w-79s	Composition-Orchestration (6 cred.; jr., sr.; prereq. 4-5-6, 7-8)	Ar	Ar	Ar	Mr. Ferguson
80f-81w-82s	Advanced Normal Piano (6 cred.; sr.; prereq. 70-71-72)	VIII	MWF	103Mu	Miss Kendall
83f-84w-85s	Advanced Composition (6 cred.; sr.; prereq. 77-78-79)	Ar	Ar	Ar	Mr. Ferguson
90f-91w-92s	Advanced Instrumental Ensemble (6 cred.; sr.; prereq. 60-61-62)	VI	MWF	104Mu	Mr. Stephens

For Graduate Students Only

200f-201w-202s	Basis of Musical Expression (9 cred.; grad.; prereq. 56-57-58)	VII, VIII	M	104Mu	Mr. Ferguson
	Conference hour	Ar	Ar	Ar	
205f-206w-207s	Composition in Larger Forms (9 cred.; grad.; prereq. 83-84-85)	Ar	Ar	Ar	Mr. Ferguson
209f-210w-211s	Advanced Topics in Musical Analysis (9 cred.; grad.; prereq. 76)	Ar	Ar	Ar	Mr. Oberg

MUSIC EDUCATION—See Education, page 38.

NATURAL SCIENCE

1f-2w-3s* Orientation in the Natural Sciences—An integrated survey course in which the student is introduced to the subject matter and methods of the physical and biological sciences. 1f: Astronomy and certain phases of physics; 2w: Chemistry, geology and the biological sciences; 3s: Some phases and applications of the biological sciences, such as the infectious and communicable diseases, and public health; readings in anthropology and psychology. The entire course (15 credits), but not a 5- or 10-credit part of it, fulfills the group "D" requirement in the natural sciences for admission to the Senior College of Science, Literature, and the Arts, the College of Education, or the School of Business Administration. The individual quarters (1f,2w,3s) may be taken as elective courses (15 cred.; fr., soph.; no prereq.).

Lect.	III	Th	150Ph	Mr. Buchta
Sec. 1	I	MTWF	145Ph	Mr. Buchta
2	III	MTWF	209EdH	Mr. Haun
3	III	MTWF	311½F	Miss Shaw
4	IV	MTWF	210P	Mr. Thiel
5	VII	MTWF	210P	Ar

* Students may enter any quarter.

NAVAL SCIENCE AND TACTICS

See the program of Naval Science and Tactics, page 11.

NORWEGIAN

See Scandinavian, page 100.

PHILOSOPHY

Major advisers in the College of Science, Literature, and the Arts—Professors Conger and Feigl; Associate Professor Castell.

Major sequence in the College of Science, Literature, and the Arts—Courses 50-51-52 and others, to make a total of at least 27 credits in Senior College courses. Students who take Courses 50-51-52 and 50A-51A-52A must complete at least six credits in courses numbered above 100; those who take 50-51-52 alone must complete at least twelve credits in courses numbered above 100.

(Prerequisite for major sequence, Course 1; Course 1A will not be accepted for this requirement.)

Modifications of this sequence will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College. In particular, Pol. Sci. 164-165-166 may be offered to make up a major in philosophy if the major adviser approves.

Most of the courses in philosophy are designed to be in one way or another "integrative"—to take data from other courses and from various fields of interest and ask how they fit together and what their significance is for man and his work. For a list of recommended related courses in other departments consult philosophy instructors or see the bulletin board outside 323 Folwell Hall.

Courses 1, 2, 3, 1A, 2A, and 3A are introductory. They may be taken singly or in any order, but no student may receive credit for both 1 and 1A, or 2 and 2A, or 3 and 3A. The sections of these courses are scheduled so that one may be taken at almost any hour and so that, if another of the courses is elected, it may be taken at the same hour in the following quarter.

Students who, because of sequences or other interests, desire courses marked "Ar" are invited to consult the instructors with regard to possible organization of seminars to cover such work.

Students intending to enter theological seminaries or other institutions for training in religious work should note the special curriculum in liberal arts which is indicated in the Bulletin of the College of Science, Literature, and the Arts (not in this Combined Class Schedule). Philosophy advisers may be consulted with regard to this curriculum.

For Mr. Castell's course, Humanities in the Modern World, see page 60.

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
2f-1w-3s	Logic, Problems of Philosophy, Ethics—A special sequence of courses in philosophy especially for prelegal freshmen, but open to other students. Only by special permission of the instructor will prelegal students be admitted to 1w-3s without 2f, or to 3s without 1w (5 cred. per qtr.; open to prelegal fr., some other fr.* and to soph., jr., sr.; no prereq.)				
		VI	MTWThF	322F	Mr. Feigl
1f	Problems of Philosophy—An introductory course dealing with man's most important attempts to understand the world and himself. Brief survey of great philosophies; methods of obtaining knowledge; chief data of the sciences; doctrines of evolution, especially in their bearing on ethics and religion (5 cred.; open to some fr.* and to soph., jr., sr.; no prereq.)				
		VII	MTWThF	321F	Mr. Phillips

* Courses 1, 2, 3 and 1A, 2A, 3A are open in any quarter to a limited number of freshmen with the approval of the Junior College office, 106 Folwell Hall.

No.	Title	Hour	Day	Bldg.	Instructor
1Af	Selected Problems of Philosophy—An abbreviated treatment of some material of Course 1 (3 cred.; open to some fr.* and to soph., jr., sr.; no prereq.)	IV	MWF	322F	Mr. Phillips
1w	Problems of Philosophy (See 1f)	III	MTWThF	321F	Mr. Conger
1s	Problems of Philosophy (See 1f)	II	MTWThF	322F	Miss Shaw
1As	Selected Problems of Philosophy (See 1Af)	VIII	MWF	322F	Mr. Conger
2f	Logic—A study of the difference between logical and fallacious reasoning; types of fallacies; rules of a good definition; syllogisms; proof; hypothesis; generalization; probability (5 cred.; open to some fr.* and to soph., jr., sr.; no prereq.)	II	MTWThF	322F	Miss Shaw
2w	Logic (See 2f)	VIII	MTWThF	322F	Mr. Conger
2Aw	Selected Problems of Logic—An abbreviated treatment of some material of Course 2 (3 cred.; open to some fr.* and to soph., jr., sr.; no prereq.)	IV	MWF	322F	Mr. Phillips
2s	Logic (See 2f)	III	MTWThF	321F	Miss Shaw
	Sec. 1	VII	MTWThF	321F	Mr. Phillips
	2				
3f	Ethics—Problems of life treated in terms of (1) contemporary social, political, and economic forces, and (2) the character of the individual; psychological and philosophical foundations of morality; the reconstruction of morality (5 cred.; open to some fr.* and to soph., jr., sr.; no prereq.)	III	MTWThF	321F	Mr. Conger
3Af	Selected Problems of Ethics—An abbreviated treatment of some material of Course 3 (3 cred.; open to some fr.* and to soph., jr., sr.; no prereq.)	VIII	MWF	322F	Mr. Conger
3w	Ethics (See 3f)	II	MTWThF	322F	Miss Shaw
	Sec. 1	VII	MTWThF	321F	Mr. Phillips
	2				
3As	Selected Problems of Ethics (See 3Af)	IV	MWF	322F	Mr. Phillips
10f	Science and Religion (2 cred.; soph., jr., sr.; no prereq.)	VI	TTh	321F	Mr. Conger
20f	Social Philosophy—A study of conflicting social philosophies of today; liberalism vs. authoritarianism; evaluation of various social, political, and economic institutions in terms of ethical ideals; other problems of social morality; social reconstruction; social utopias (3 cred.; soph., jr., sr.; no prereq.)	IV	MWF	303F	Miss Shaw
20s	Social Philosophy (See 20f—This spring quarter section is particularly designed for pre-education students but not limited to them.)	VI	MWF	311F	Mr. Brameld

Senior College Courses

Course 70 is open to sophomores who have an average grade of at least C in all their work and in the prerequisite courses. Other Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

50f-51w-52s§	General History of Philosophy (9 cred.; jr., sr.; no prereq.)	III	MWF	304F	Mr. Castell
50Af-51Aw-52As§	Readings in Philosophical Classics (6 cred.; jr., sr.; no prereq.)	III	TTh	304F	Mr. Castell
59	<i>Esthetics</i> —A study of modern theories of art. Topics include the nature and status of art standards; the relation of art theories to the social background, to current psychological theories, and to art practice (3 cred.; jr., sr.; no prereq.) (<i>Not offered</i>)				

* Courses 1, 2, 3 and 1A, 2A, 3A are open in any quarter to a limited number of freshmen with the approval of the Junior College office, 106 Folwell Hall.

§ Students may enter any quarter.

No.	Title	Hour	Day	Bldg.	Instructor
70w†	Philosophies of Social Reform I: from the French Revolution to 1848—Social criticism in the period of rising industrialism. A consideration of the philosophical bases of liberalism, utopian socialism, and democracy (3 cred.; jr., sr.; no prereq.)	VI	MWF	321F	Miss Shaw
73	<i>Philosophy of Law</i> —A survey of the classical philosophies of law from Plato through the nineteenth century. The nature and method of law, justice, and the judicial process in the light of contemporary thought (3 cred.; soph., jr., sr.; prereq. 6 cred.) (Not offered)				
101f-102w-103s	Principles of Philosophy—Topics for the fall quarter include knowledge, meaning, and truth; for the winter quarter, reality, mind, and nature; for the spring quarter, human values and action (2 cred. per qtr.; open only to seniors and graduates who have not had Course 1 or Course 2; no prereq.)	VII-VIII	T	302F	Mr. Feigl
106f-107w	Philosophy of Plato (6 cred.; jr., sr., grad.; prereq. 6 cred. including Course 50)	VIII	MWF	321F	Mr. Phillips
110	<i>Rationalism</i> —The philosophies of Descartes, Spinoza, and Leibniz (3 cred.; jr., sr., grad.; prereq. 6 cred.) (Not offered)				
111	<i>Empiricism</i> —Philosophies of Locke, Berkeley, Hume (3 cred.; jr., sr., grad.; prereq. 6 cred.) (Not offered)				
111As	Eighteenth Century Philosophy—A study of the main philosophic trends of the eighteenth century. Empiricism and idealism in England (Locke, Berkeley, and Hume); rationalism and materialism in France (Voltaire, Diderot, d'Alembert, Holbach); criticism in Germany (Kant). The course is designed not only for majors in philosophy but also in history, English literature, French, and German (3 cred.; jr., sr.; no prereq.)	VI	MWF	321F	Miss Shaw
112	<i>Kant</i> (3 cred.; jr., sr., grad.; prereq. 6 cred.) (Not offered)				
113	<i>Kierkegaard and Scandinavian Philosophy</i> (3 cred.; jr., sr., grad.; prereq. 6 cred.) (Not offered)				
114	<i>American Philosophy from Puritanism to Pragmatism</i> —A study of Puritanism, the Revolutionary period, transcendentalism, evolutionism, idealism, and pragmatism (3 cred.; jr., sr., grad.; especially for students of American history and literature) (Not offered)				
115s	Contemporary Philosophy—A study of current systematic and critical philosophies, especially realism, pragmatism, and positivism, as represented by their principal exponents (3 cred.; jr., sr., grad.; prereq. 6 cred.)	Ar	Ar	Ar	Ar
116	<i>Philosophy of John Dewey</i> —A survey of the ethical, social, educational, and logical contributions made to modern thought by this distinctively American thinker (3 cred.; jr., sr., grad.; prereq. 6 cred.) (Not offered)				
123s	Comparative Philosophy—A survey of the principal Oriental philosophies, Hindu, Buddhist, Taoist, and Confucian, with special attention to comparisons and contrasts with Western systems (3 cred.; jr., sr., grad.; prereq. 6 cred.)	III	MWF	316F	Mr. Conger
135s	Philosophy in Modern Literature—Philosophical ideas and their expression in recent literature. Lectures on Schopenhauer, Darwin, Marx, Freud, and others. Readings from Samuel Butler, Emile Zola, Thomas Hardy, Anatole France, Bernard Shaw, and Aldous Huxley (3 cred.; jr., sr., grad.; prereq. consent of instructor)	I	MWF	321F	Mr. Phillips
143	<i>Theory of Knowledge</i> —An analysis of the logical structure and the experiential roots of knowledge. The topics include meaning, validity, truth, reason and experience, induction, criteria of objectivity and reality (3 cred.; jr., sr., grad.; prereq. 6 cred.) (Not offered)				
147f	Elements of Symbolic Logic and Semantics—A systematic introduction to modern mathematical logic and the logical analysis of language. The topics include the dimensions of language; calculus of propositions, classes, and relations; applications to foundations of mathematics (3 cred.; jr., sr., grad.; no prereq.)	VII	MWF	302F	Mr. Feigl

† No student may receive credit for both Philosophy 70 and Political Science 162.

No.	Title	Hour	Day	Bldg.	Instructor
153s	Philosophy of Science—An attempt to provide a clear understanding of the meaning, methods, and implications of modern science through the examination of basic concepts, presuppositions, and procedures. The topics include description, explanation, prediction, experimentation; space, time, number, matter, energy; causality, probability, statistics; organic life, evolution, mind (3 cred.; jr., sr., grad.; no prereq.)	VII	MWF	302F	Mr. Feigl
155	<i>Metaphysics</i> (5 cred.; jr., sr., grad.; prereq. 6 cred.) (<i>Not offered</i>)				
164	<i>Ethical Theory</i> —Distinguishing characteristics of a moral judgment; applications of moral judgments to motives, acts, consequences, and persons; moral freedom and responsibility; moral relativity, scepticism, and unity; ethical monism and pluralism; paternalism and individualism in ends and means; theory of knowledge as basis of morality; examination of representative systems (3 cred.; jr., sr., grad.; prereq. 6 cred., including Course 3 or 52) (<i>Not offered</i>)				
165	<i>Political and Social Ethics</i> (3 cred.; jr., sr., grad.; prereq. 6 cred.) (<i>Not offered</i>)				
170	<i>Philosophy of History</i> —A survey of the mythological, religious, naturalistic, totalitarian, and economic interpretations of history, and a critical analysis of the historical categories: time, succession, causality, continuity, freedom, revolution, and progress (3 cred.; jr., sr., grad.; prereq. 6 cred. in phil. or 10 cred. in hist.) (<i>Not offered</i>)				
180f	History of Religions (3 cred.; jr., sr., grad.; prereq. 6 cred.)	VI	MWF	304F	Mr. Conger
181w	Psychology of Religion (3 cred.; jr., sr., grad.; prereq. 6 cred.)	VI	MWF	304F	Mr. Conger
182s	Philosophy of Religion (3 cred.; jr., sr., grad.; prereq. 6 cred.)	VI	MWF	304F	Mr. Conger
191f-192w-193s	Seminar in Philosophy—Topics to be arranged, e.g., see courses marked Ar (9 cred.; sr., grad.; prereq. 9 credits or consent of instructor)	Ar	Ar	Ar	Mr. Feigl, Mr. Conger, Mr. Castell, Mr. Phillips, Miss Shaw

Courses Primarily for Graduate Students

241-242-243	<i>Seminar: Philosophy of the Physical Sciences</i> (3 cred. per qtr.; no prereq.) (<i>Not offered—offered in alternate years</i>)				
244-245-246	<i>Seminar: Philosophy of Biology and Psychology</i> (3 cred. per qtr.; no prereq.) (<i>Not offered—offered in alternate years</i>)				
247f-248w-249s	Seminar: Logic of the Exact Sciences (3 cred. per qtr.; no prereq.) (Offered in alternate years)	Ar	Ar	Ar	Mr. Feigl
250f-251w-252s	Seminar: Philosophy of the Social Sciences (3 cred. per qtr.; no prereq.) (Offered in alternate years)	VIII, IX	Th	302F	Mr. Feigl

PHYSICAL EDUCATION FOR MEN

See the program of Physical Education for Men, page 13.

PHYSICAL EDUCATION FOR WOMEN

See the program of Physical Education for Women, page 14. Of the courses listed there, Course 54 "Camp Leadership" (2 credits, no prerequisite) is regularly open to S. L. & A. students for credit. The other courses are elective without credit.

PHYSICS

Major adviser in the College of Science, Literature, and the Arts—Professor Valasek.

Major sequence in the College of Science, Literature, and the Arts—Courses 101-103-105, plus 6 additional credits in Senior College courses, and Mathematics 50, 51, and 105.

Modifications of this sequence will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

The physics included in specialized curriculum leading to the degree "B.S. in physics," offered in the Institute of Technology, will be accepted as a major sequence in this college.

Major adviser in the College of Education—Professor Buchta.

Requirements for a teacher's certificate—Course 7-8-9. This is a general course in physics extending through three quarters.

Major recommendation: The above general course and in addition Courses 107-109-111 and nine credits selected from 110-112, 124, 134, 136, 144.

Minor recommendation: The above general courses plus six credits selected from Courses 107-109-111, 134, 136, 144.

For a specialized curriculum in natural science see the Bulletin of the College of Education.

Prerequisites for any course in physics may be waived if a petition for registration in the course is granted by the department chairman.

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
1f-2w†-3s	Introduction to Physical Science—Lectures and experimental demonstrations of the principles underlying physical phenomena (9 cred.; prereq. high school algebra and plane geometry)	III	MWF	166Ph	Mr. Rassweiler
1af-2aw†-3as‡	Introduction to Physical Science—with laboratory included. Fulfills the laboratory-science group requirement in Science, Literature, and the Arts (12 cred.; prereq. high school algebra and plane geometry)	III	MWF	166Ph	Mr. Rassweiler
	Lect.	III	MWF	166Ph	Mr. Rassweiler
	Lab. Sec. 1	I, II	Th	Ar	Mr. Wall
	2	VI, VII	F	Ar	
4f-5w-6s†	General Physics (primarily for premedical students)—Mechanics and heat (Physics 4); sound and light (Physics 5); electricity (Physics 6). Laboratory work is an integral part of course (15 cred.; prereq. Math. 15-16, Elementary Mathematical Analysis; or with permission of department chairman Math. 6, Trigonometry, and either Math. 7 or 8, which are courses in college algebra. Premedical students should take Math. 15-16)	I	MTWThF	150Ph	Mr. Wall
	Lect. and quiz	VI, VII	M	Ar	Mr. Wall
	Lab. Sec. 1	VIII, IX	M		and assistants
	2	VIII, IX	T		
	3	VI, VII	Th		
	4	VIII, IX	F		
	5	III, IV	S		
	6	III, IV	S		
6f-5w†	General Physics (See 4f-5w-6s) This course is for students who have had Physics 4 or equivalent. The order of topics is Electricity (Physics 6) and Sound and Light (Physics 5).	III	MTWThF	133Ph	Mr. Buchta
	Lect. and quiz	VIII, IX	M	Ar	Mr. Wall
	Lab. Sec. 1	VI, VII	Th		and assistants
	2	VIII, IX	F		
	3	I, II	S		
	4	III, IV	S		
	5	III, IV	S		

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$2 per quarter is charged for this course.

No.	Title	Hour	Day	Bldg.	Instructor
7f-9w-8s‡	General Physics (primarily for students majoring in physics, mathematics, or chemistry and for students in the Institute of Technology)—Mechanics and heat (Physics 7); electricity (Physics 8); sound and light (Physics 9). Laboratory work is an integral part of course (15 cred.; prereq. § Math. 15-16 or equivalent or registration in differential calculus)				
	Lect.	I	MTWThF	150Ph	Mr. Wall
	Lab. Sec. 1	VI, VII	M	Ar	Mr. Wall
	2	VIII, IX	M		and assistants
	3	VIII, IX	T		
	4	VI, VII	Th		
	5	VIII, IX	F		
	6	III, IV	S		
8f-9w‡	General Physics (See 7f-9w-8s)				
	Lect.	III	MTWThF	133Ph	Mr. Buchta
	Lab. Sec. 1	VIII, IX	M	Ar	Mr. Wall
	2	VI, VII	Th		and assistants
	3	VIII, IX	F		
	4	I, II	S		
	5	III, IV	S		
29f	Introduction to Meteorology—A presentation of the fundamental physical principles underlying meteorological phenomena, accompanied by instrumental observations and weather map study (3 cred.; prereq. high school physics or equiv.)				
		II	TThS	133Ph	Mr. Valasek

Senior College Courses

Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

52‡	<i>Laboratory Arts</i> (3 cred.; jr., sr.; prereq. 15 cred. in physics and approval of dept.) (Not offered)				
100f-102w-104s	Intermediate Physics—Discussion of selected problems in classical physics. Solution of problems (9 cred.; jr., sr., grad.; prereq. calculus and 15 cred. in physics)				
		Ar	Ar	Ar	Mr. Wall
101f-103w-105s	Theoretical Physics (15 cred.; jr., sr., grad.; prereq. 15 cred. in physics, Math. 106 or registration in 106)				
		III	MTWThF	145Ph	Mr. Hill
107f-109w-111s	Modern Physics (9 cred.; jr., sr., grad.; prereq. 15 cred. in physics, Math. 50)				
		Ar	Ar	Ar	Mr. Hill
110w-112s‡¶	Modern Experimental Physics (3 or 4 cred. per qtr.; jr., sr., grad.; prereq. 144)				
		VI-IX	TTh	145Ph	Mr. Vaughan
113	<i>Intermediate Acoustics</i> (3 cred.; jr., sr., grad.; prereq. Math. 51, 15 cred. in physics) (Not offered)				
114f-116w-118s¶	Elementary Physical Investigation (9 cred.; jr., sr., grad.; prereq. 15 cred. in physics, Math. 51)				
		Ar	Ar	Ar	Ar
131f	Geometrical and Physical Optics (3 cred.; jr., sr., grad.; prereq. 15 cred. in physics, Math. 51)				
		Ar	Ar	Ar	Mr. Valasek
134f,w‡	Experimental Optics (3 or 4 cred.; jr., sr., grad.; prereq. 15 cred. in physics)				
		VII, VIII, IX	MF	348Ph	Mr. Valasek
136w,s‡	Spectrum Analysis (3 or 4 cred.; jr., sr., grad.; prereq. 15 cred. in physics)				
		VII, VIII, IX	MF	348Ph	Mr. Valasek
144w‡	Electricity Measurements (3 cred.; jr., sr., grad.; prereq. 15 cred. in physics, Math. 51)				
	Lect.	III	TThS	133Ph	Mr. Wall
	Lab. Sec. 1	VI, VII, VIII, IX	Th	231Ph	
	2	VI, VII, VIII, IX	T	231Ph	

‡ A fee of \$2 per quarter is charged for this course.

§ See note about prerequisites on page 79.

¶ Students may enter any quarter.

No.	Title	Hour	Day	Bldg.	Instructor
146a†	Physics of Vacuum Tubes—Thermionics (3 cred.; prereq. 144 and permission of instructor)	Ar	Ar	232Ph	Ar
152a	X Rays (3 cred.; jr., sr., grad.; prereq. 15 cred. in physics)	Ar	Ar	166Ph	Mr. Valasek
154‡	X-Ray Spectroscopy (3 cred.; prereq. Math. 51, and permission of instructor) (Not offered)	Ar	Ar	Ar	Mr. Bardeen
181f-183w-185s	Atomistic and Elementary Quantum Mechanics—Atomic structure, X rays, spectrum analysis and an introduction to wave mechanics (3 cred. per qtr.; sr., grad.; prereq. 101-103-105 or registration in that course)	Ar	Ar	Ar	Mr. Bardeen

PHYSIOLOGY

MEDICAL SCHOOL

Major adviser in the College of Science, Literature, and the Arts—Dr. King.

Major sequences in the College of Science, Literature, and the Arts—

Sequence A. Physiology. Course 103-104; 15 credits in approved Senior College courses in related fields.

Sequence B. Physiological Chemistry. Course 100-101; 15 credits in approved Senior College courses in related fields of chemistry, physics, or biology.

Sequence C. Biophysics. Courses will be arranged by Professor Stenstrom with interested students, subject to the approval of the assistant dean for the Senior College.

Modifications of these sequences will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

Junior College Courses

1f*	Elements of Physiological Chemistry (4 cred.; primarily for students of nursing‡; no prereq.)	Lect. and quiz	VII	MWF	Ar	Dr. Barnum and others
	Lab. Sec. A		I, II	T	310MH	
	B		VIII, IX	M	310MH	
	C		I, II	F	310MH	
1s*	Elements of Physiological Chemistry (See 1f)	Lect. and quiz	II	MWF	Ar	Dr. Barnum and others
	Lab.		VI, VII	WTh	310MH	
2f*	Elements of Physiology (4 cred.; primarily for students of nursing‡; no prereq.)	Lect. and quiz	III	MWF	Ar	Mrs. Coe and others
	Lab. Sec. A		I, II	Th	301MH	
	B		VIII, IX	Th	301MH	
	C		VIII, IX	T	301MH	
2s*	Elements of Physiology (See 2f)	Lect. and quiz	VIII	TTh	Ar	Mrs. Coe and others
	Lab.		III	S		
			II, III	Th	301MH	
4f*	Human Physiology (4 cred.; prereq. 1 qtr. zool., 1 qtr. chem.)	Lect.	III	MWF	301MH	Staff
	Conference		IV	F		
4s*	Human Physiology (See 4f)	Lect.	VIII	T	301MH	Staff
			VII, VIII	Th		
	Conference		VII	T	Ar	

* Will not count for credit for admission to the Medical School except by permission of the dean of that school.

† A fee of \$2 per quarter is charged for this course.

‡ Others may be admitted by special permission.

Senior College Courses

Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

No.	Title	Hour	Day	Bldg.	Instructor
50f	Physiological Chemistry (4 cred.; primarily for phys. ed. students; jr., sr.; prereq. inorganic chemistry)	VI	MTWThF	Ar	Dr. Barnes and others
51s*	Human Physiology (6 cred.; primarily for phys. ed. students; jr., sr.; prereq. Zool. 1-2-3; Inorg. Chem. 1-2-3, or 4-5, or equiv.; Physiol. 50; Human Anatomy or Comp. Anatomy)	IV VI, VII, VIII, IX	MTWF T	MH MH	Dr. Keys and others
56f	Physiological Chemistry (2 cred.; primarily for dental students; jr., sr.; prereq. org. chem.)	I	WS	Ar	Dr. Armstrong and others
57w	Physiological Chemistry (6 cred.; jr., sr.; prereq. 56)	I II VI, VII, VIII II, III, IV	WFS S T F	Ar	Dr. Armstrong and others
58s*	Human Physiology (5 cred.; primarily for dental students; sr.; prereq. zool. and Physiol. 56, 57)	I II II, III, IV	TThS S T	Ar Ar Ar	Dr. King and others
59f*	Human Physiology (5 cred.; sr.; prereq. 58 or equiv.)	I II II, III, IV	TThS S T	Ar Ar Ar	Dr. King and others
60s	Human Physiology (6 cred.; primarily for Medical Technology and 5-year nursing students)	IV II VII, VIII, IX II, III	MTWF S F Th	Ar	Dr. Lorber and others
100f	Physiological Chemistry (7 cred.; jr., sr.; prereq. org. chem. and physics)	IV I VII, VIII, IX	MTWF F WF	Ar F 310MH	Dr. Burr, Dr. Armstrong, Dr. Barnum and others
100w	Physiological Chemistry (See 100f)	IV II I, II, III I, II, III	MTWF F MW ThS	Ar F 310MH 310MH	Dr. Burr, Dr. Armstrong, Dr. Barnum, and others
101w	Physiological Chemistry (6 cred.; jr., sr.; prereq. 100)	IV VI VI VII, VIII, IX	TS F T WF	Ar F T 310MH	Dr. Burr, Dr. Armstrong, Dr. Barnum, and others
101s	Physiological Chemistry (See 101f)	IV VI VI I, II, III I, II, III	TS F T MW ThS	Ar F T 310MH 310MH	Dr. Burr, Dr. Armstrong, Dr. Barnum, and others

* Will not count for credit for admission to the Medical School except by permission of the dean of that school.

‡ Others may be admitted by special permission.

No.	Title	Hour	Day	Bldg.	Instructor
103ff	Physiology of Circulation, Respiration, etc. (9 cred.; jr., sr.; prereq. zool. and org. chem.)				
	Lect.	I	MTWThFS		Dr. Visscher,
	Conference	III	TS		Dr. Keys,
	Lab.				Dr. King,
	Div. A	VI, VII, VIII	MW		and others
	B	II, III, IV	MW		
104w	Physiology of Endocrines, Nervous System, etc. (6 cred.; lect. only, 4 cred.; jr., sr.; prereq. 103 or org. chem. and neurology)				
	Lect.	IV	MTWF	Ar	Dr. Visscher,
	Conference	VII	F		Dr. Gellhorn,
	Lab.				Dr. King,
	Div. A	9:00-11:20	M		and others
		1:30- 4:00	W		
	B	1:30- 4:00	M		
		9:00-11:20	W		
114	<i>Physiology of Muscular Activity</i> (1 or 2 cred.; jr., sr., grad.; prereq. 103 or 51 with grade of A or B) (<i>Not offered</i>)				
115	<i>Measurements in Human Physiology</i> (1 cred.; jr., sr., grad.; prereq. 114 which may be taken concurrently) (Limited to 10 students) (<i>Not offered</i>)				

For other courses see the bulletin and programs of the Medical School.

POLITICAL SCIENCE

Major advisers—Professors Anderson, Quigley, and Short; Associate Professor Kirkpatrick.

Preparation for Senior College work—Nine credits, including 6 in Course 1-2, and 3 in one of the following: Courses 3, 7, 10, 15, and 25, except as otherwise noted in the prerequisites for particular Senior College courses.

Preparation for a major sequence and for the major in international relations—Twelve credits, which must include Course 1-2 (6 credits) and at least 3 credits in 7, 10, 15, or 25; plus suitable preparation in History (1-2-3, 4-5-6, or 20-21-22), Economics (6-7 and 5) or Sociology (1 and 45). In addition, students are advised to take one or more of the following: Philosophy 2, Geography 43, Psychology 1-2.

Major sequence—The preparatory work noted above is designed to provide a general knowledge of (1) the American system of government, and (2) the principal terms and concepts of political science. To this knowledge the major sequence should add the following: (3) a knowledge of the works of a number of great contributors to political ideas; (4) fairly exact and thoro knowledge of some extensive part of three of the following fields of political science: (a) American government, politics, and administration; (b) public law; (c) comparative modern government; (d) political theory; (e) local government and administration; (f) international law, organization, and relations; and (5) development of the ability to study independently in at least one of the three chosen fields.

To these ends the student shall take in each of his selected fields at least one 9-credit course or a three-quarter sequence of related courses totaling 9 credits. Thus the requirement for the major is at least 27 credits in Senior College courses in political science, distributed among three selected fields and constituting, along with other parts of the student's program, an integrated and co-ordinated plan of study.

Major in international relations (training for the foreign service)—A special program taking the place of a major sequence will be arranged for students of good standing who desire a general introduction to this field. Courses are drawn from Political Science,

† Students may register for lectures without laboratory.

Economics, History, Geography, and related departments. Those intending to take the examinations for the American foreign service are advised to follow this program and to prepare themselves adequately in modern foreign languages. Consult Mr. Quigley.

Major in foreign area study—A program of area study, preparing for various fields of professional work in foreign lands is being prepared and will probably be available for students in the fall quarter, 1944. Consult Mr. Quigley.

Special readings and honors courses—Students who are capable of doing better than average work and who wish to specialize or to study for graduation honors are advised to take Course 91-92-93. This course may be elected for independent work in any of the six fields noted above in the description of the major sequence.

Major adviser in the College of Education—Professor Kirkpatrick.

Requirements for a teacher's certificate—Major recommendation: At least 36 credits in political science including 1-2-3, either 7, 10, 15, or 25, and at least 12 credits in Senior College courses.

Minor recommendation: At least 18 credits in political science, including 1-2-3, either 7, 10, 15, or 25, and 3 credits in Senior College courses.

For a comprehensive curriculum in social studies, see College of Education Bulletin.

Note for graduate students—Courses in political science that are indicated as being open to juniors, seniors, and graduates may be taken by graduate students for full credit, subject to the requirement of additional work over and above that assigned to undergraduates, or they may be taken by graduate students for reduced credit.

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
1f-2w†-3s	American Government and Politics—An explanation and analysis of the principles, organization, procedures, and functions of American government—national, state, and local. Attention will be given throughout to the impact of the war and the postwar world upon American government and politics (9 cred.; no prereq.)	IV	MWF	BuAud	Mr. Kirkpatrick
1w-2s†	American Government and Politics (6 cred.; no prereq.)	III	MWF	206Pt	Mr. Hawkins
5s‡	American Government and Politics (5 cred.; no prereq.)	I	MTWThF	206Pt	Mr. Hawkins
7s	Comparative European Government—The governments of Great Britain, France, Italy, Germany, and Russia. Constitutions; governmental organization; parties and elections (3 cred.; no prereq.)	II	TThS	211Bu	Mr. McClosky
10w	Fundamentals of Government and Politics—An introduction to the nature of political authority; a comparison of the major features of American government with governmental organization of other nations, and an analysis of the conflict between democracy and dictatorship (3 cred.; no prereq.)	VI	MWF	211Bu	Mr. Hawkins
11s	Special Readings in American Government and Politics (2 cred.; prereq. 1 or 5)	II	MW	204EdH	Mr. Christensen
12s	Special Readings in American Government and Politics (2 cred.; prereq. 1 or 5)	II	TTh	204EdH	Mr. Hawkins
15f	Elements of Political Science—The nature and functions of the state; sovereignty and liberty; constitutions, forms of government (3 cred.; no prereq.)	II	TThS	211Bu	Mr. Hawkins

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ This course covers most of Political Science 1-2. No student will be given credit for both courses 1-2 and 5. Course 5 may be substituted for 1-2 whenever 1-2 is required.

No.	Title	Hour	Day	Bldg.	Instructor
25f,w	World Politics—Introduction to contemporary international relations; the policies of the great powers; nationalism; imperialism; internationalism (3 cred.; no prereq.)				
	Fall	II	MWF	211Bu	Mr. Mills
	Winter	II	TThS	211Bu	Mr. Mills

Senior College Courses

Senior College courses in this department are open to Junior College students who have an average grade of C in the prerequisite courses, subject to the general rule that courses which carry graduate credit may not be taken earlier than the third quarter of the student's sophomore year.

85a	Problems of World Politics (3 cred.; jr., sr.; prereq. 25 or Hist. 1-2-3 or consent of instructor)	II	MWF	211Bu	Mr. Mills
91f-92w-93s	Honors Work in Selected Fields (Cred. ar.; jr., sr.; prereq. 18 cred.; consult major advisers)	Ar	Ar	Ar	Ar
97	<i>American and European Colonies of Today</i> (3 cred.; jr., sr.; prereq. 6 cred. in pol. sci. or 12 cred. in soc. sci.) (<i>Not offered</i>)				
101f	Principles of the American Constitution—The nature of constitutions, judicial review, national, state, and interstate relations (3 cred.; jr., sr., grad.; prereq. Pol.Sci. 1-2 or equiv.)	I	MWF	209Bu	Mr. Anderson
102w	Principles of the American Constitution—Organization and powers of the national government (3 cred.; jr., sr., grad.; prereq. 101 or equiv.)	I	MWF	209Bu	Mr. Anderson
103a	Principles of the American Constitution—Constitutional rights, due process and equal protection of the law (3 cred.; jr., sr., grad.; prereq. 101 or 102 or equiv.)	I	MWF	209Bu	Mr. Anderson
104-105-106	<i>American Constitutional Development</i> (9 cred.; jr., sr., grad.; prereq. 9 cred. or Hist. 20-21-22) (<i>Not offered</i>)				
108w	Legislative Organization and Procedure—A study of congress and the state legislatures at work (3 cred.; jr., sr., grad.; prereq. 6 cred.)	IV	MWF	211Bu	Mr. Short
116w	Local Government: Areas and Organization (3 cred.; jr., sr., grad.; prereq. 9 cred. or consent of instructor)	III	MWF	202EdH	Mr. Anderson
117	<i>Local Government: Politics, Major Functions, Administration, and Central Supervision</i> (3 cred.; jr., sr., grad.; prereq. 116) (<i>Not offered</i>)				
118	<i>Local Government: Legal Status, Powers, and Responsibilities</i> (3 cred.; jr., sr., grad.; prereq. 116) (<i>Not offered</i>)				
120f	Municipal Functions (3 cred.; jr., sr., grad.; prereq. 6 cred.)	II	TThS	209Bu	Mr. Ludwig
121w	Municipal Administration (3 cred.; jr., sr., grad.; prereq. 120 or consent of instructor)	II	TThS	209Bu	Mr. Ludwig
122s	Municipal Problems (3 cred.; jr., sr., grad.; prereq. 121 or consent of instructor)	II	TThS	209Bu	Mr. Ludwig
124f	City Planning—General survey of the economic, governmental, social, and technical phases of city planning and group housing (The same as Architecture 104, Economics 111, and Sociology 104) (3 cred.; sr., grad.; no prereq.)	III	MWF	320E	Mr. Jones, Mr. Anderson, Mr. Filipetti, Mr. Vaile, Mr. Sletto
125f	Recent Social Legislation—With special reference to the fields of social security, labor, housing, and health (3 cred.; jr., sr., grad.; prereq. 6 cred.)	IV	MWF	211Bu	Mr. Short
126-127	<i>Government and the Economic Order</i> (6 cred.; jr., sr., grad.; prereq. 9 cred.) (<i>Not offered</i>)				

No.	Title	Hour	Day	Bldg.	Instructor
131f	Public Administration: Organization and Areas, Administrative Responsibility (3 cred.; jr., sr., grad.; prereq. 6 cred.)	II	MWF	221Bu	Mr. Short
132w	Public Administration: Personnel Administration (3 cred.; jr., sr., grad.; prereq. 131 or consent of instructor)	II	MWF	221Bu	Mr. Short
133s	Public Administration: Financial Administration (3 cred.; jr., sr., grad.; prereq. 131 or consent of instructor)	II	MWF	221Bu	Mr. Short
135s	Problems of Public Planning (2 cred. without term paper, 3 cred. with term paper; jr., sr., grad., and soph. with consent of instructor; prereq. 9 cred.)	I	TTh	209Bu	Mr. Anderson
137f	American Political Parties (3 cred.; jr., sr., grad.; prereq. 6 cred. or 12 cred. in soc. sci.)	III	TThS	209Bu	Mr. Hawkins
138	<i>American Political Campaigns and Elections</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. or 12 cred. in soc. sci.) (<i>Not offered</i>)				
141f	European Democracies: Institutions and Politics (3 cred.; jr., sr., grad.; prereq. 6 cred. or 12 cred. in soc. sci.)	I	MWF	202EdH	Mr. McClosky
142w	European Democracies: Political Parties (3 cred.; jr., sr., grad.; prereq. 6 cred. or 12 cred. in soc. sci.)	I	MWF	202EdH	Mr. McClosky
148s	European Dictatorships (3 cred.; jr., sr., grad.; prereq. 6 cred. in pol. sci. or 12 cred. in soc. sci.)	I	MWF	202EdH	Mr. McClosky
149f	Government and Politics of the British Empire—India and the tropical colonies (3 cred.; jr., sr., grad.; prereq. 6 cred. or consent of instructor)	III	MWF	211Bu	Mr. Mills
150w	Government and Politics of the British Empire—Development of Dominion Status (3 cred.; jr., sr., grad.; prereq. 6 cred. or consent of instructor)	III	MWF	211Bu	Mr. Mills
151s	British Problems of Closer Union—Problems of unity within the British Dominions; regional unions with adjacent states (3 cred.; jr., sr., grad.; prereq. 149-150 with grade of C+ or better, or consent of instructor)	III	MWF	211Bu	Mr. Mills
153s	Far Eastern Governments (3 cred.; jr., sr., grad.; prereq. 6 cred. or consent of instructor)	II	MWF	209Bu	Mr. Quigley
155s	Government in Latin America (3 cred.; jr., sr., grad.; prereq. 6 cred. or consent of the instructor)	VI	MWF	209Bu	Mr. Christensen
160f	American Political Thought (3 cred.; jr., sr., grad.; prereq. 6 cred. in pol. sci. or 12 cred. in soc. sci. or consent of instructor)	III	MWF	111Bu	Mr. Kirkpatrick
161w	Problems of Democracy (3 cred.; jr., sr., grad.; prereq. 6 cred. in pol. sci. or 12 cred. in soc. sci. or consent of instructor)	III	MWF	111Bu	Mr. Kirkpatrick
162s†	Recent Political Thought (3 cred.; jr., sr., grad.; prereq. 6 cred. in pol. sci. or 12 cred. in soc. sci. or consent of instructor)	III	MWF	111Bu	Mr. Kirkpatrick
164-165-166†	<i>Development of Political Thought</i> (9 cred.; jr., sr., grad.; prereq. 9 cred. in pol. sci. or 18 cred. in soc. sci.) (<i>Not offered</i>)				
167-168-169†	<i>Readings in the Classics of Politics</i> (9 cred.; jr., sr., grad.; prereq. 15, or 164-165 with which it may be taken simultaneously, or consent of instructor) (<i>Not offered</i>)				
171s	Political Psychology (The same as Psychology 141) (3 cred.; jr., sr., grad.; prereq. Psy. 140)	III	TThS	206Pt	Mr. Bird
180-181-182†	<i>International Law</i> (9 cred.; jr., sr., grad.; prereq. 9 cred.) (<i>Not offered</i>)				

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ No student may receive credit for both Political Science 162 and Philosophy 70.

No.	Title	Hour	Day	Bldg.	Instructor
184f	International Organization (3 cred.; jr., sr., grad.; prereq. 6 cred. or consent of instructor)				
		IV	MWF	209Bu	Mr. Quigley
185w	Problems of International Reconstruction (3 cred.; jr., sr., grad.; prereq. 6 cred. or consent of instructor)				
		IV	MWF	209Bu	Mr. Quigley
186	<i>War in International Relations</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. or consent of instructor) (<i>Not offered</i>)				
187s	International Administration (3 cred.; jr., sr., grad.; prereq. 6 cred. or consent of instructor)				
		IV	MWF	209Bu	Mr. Quigley
192f	International Relations in the Far East (3 cred.; jr., sr., grad.; prereq. 6 cred. or consent of instructor)				
		II	MWF	209Bu	Mr. Quigley
193w	Problems of the Pacific (3 cred.; jr., sr., grad.; prereq. 6 cred. or consent of instructor)				
		II	MWF	209Bu	Mr. Quigley
195	<i>Colonial Government and the Problems of Imperialism</i> —Motives of American, British, Dutch, French, and Spanish colonization; ancient and modern imperialism (3 cred.; jr., sr., grad.; prereq. 6 cred. in pol. sci. or 12 cred. in soc. sci.) (<i>Not offered</i>)				
196	<i>Colonial Government and the Problems of Imperialism</i> —Varieties of Colonial Rule in Contemporary Empires (3 cred.; jr., sr., grad.; prereq. 195 or consent of instructor) (<i>Not offered</i>)				

Courses Primarily for Graduate Students

The following courses may be taken by seniors majoring in political science with consent of the instructor:

204f-205w-206s†	Topics in Administrative Law (3 cred.; grad.; prereq. 18 cred. in pol. sci. and consent of instructor)				
		IV	T	201Bu	Mr. Anderson
210f-211w-212s†	Special Seminar in Public Administration (9 cred.; grad.; admission only with consent of the staff)				
		3:30-5:00	TTh	13Lib	Mr. Anderson, Mr. Short, Mr. Ludwig
229f-230w-231s	Scope and Methods of Political Science (3 cred.; grad.; prereq. admission to graduate major, or consent of instructor)				
		Ar	Ar	Ar	Mr. Anderson
239	<i>Topics in American Political Parties</i> (3 cred.; sr. with consent of instructor, grad.; prereq. 137 or 138) (<i>Not offered</i>)				
242-243-244†	<i>Topics in Colonization</i> (9 cred.; grad.; prereq. 195-196 or consent of instructor) (<i>Not offered</i>)				
280-281-282	<i>Topics in International and Maritime Law</i> (3 cred. each qtr.; sr. with consent of instructor, grad.; prereq. 180-181-182, or consent of instructor) (<i>Not offered</i>)				

PREVENTIVE MEDICINE AND PUBLIC HEALTH

See Public Health, page 91.

PSYCHOLOGY

Major advisers in the College of Science, Literature, and the Arts—Professors Bird, Elliott, Paterson, and Tinker.

Major sequences in the College of Science, Literature, and the Arts—

A. Experimental psychology. Courses 101-102-103; 125-126; and 12 additional credits in Senior College courses.

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

B. Human and animal behavior. Courses 114; 148; 151-152-153; and 12 additional credits in Senior College courses either in psychology or zoology.

C. Differential psychology. Courses 125-126-127; 160; 6 credits chosen from Educational Psychology 120, 140, 141, 142; and 12 additional credits in Senior College courses.

(Prerequisites: For Sequence A, 1-2 and 4-5. Course 55 is recommended. For Sequence B, 9 credits. For Sequence C, 1-2 and 4-5. Course 3 is recommended. All students majoring in psychology are strongly urged to elect courses in mathematics, especially Math. 15-16.

Modifications of these sequences will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

Honors course—Students interested in the work of an honors course should consult the chairman of the department.

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
Af,w,s†	Elementary Psychology—An introduction to psychology with special attention to its applications (5 cred.; fr.,* soph.; no prereq.)	VI	MTWThF	101W&H	Mr. Longstaff
1f-2w†‡	General Psychology—A general introduction to the study of human behavior with emphasis on the development of the individual (6 cred.; fr.,* soph., jr., sr.; no prereq.)				
	Sec. 1	I	MWF	BuAud	Mr. Elliott
	2	III	MWF	BuAud	and others
1w-2s†‡	General Psychology (See 1f-2w)	VIII	MWF	206Pt	Mr. Heron
1s-2s†‡	General Psychology (6 cred.; fr.,* soph., jr., sr.; no prereq.)	II	MTWThFS	JAud	Mr. Bird
3s	Psychology Applied to Daily Life—A course in the uses of psychological methods in solving such problems as come up in the treatment of ill health, in the courtroom, reformatory, and prison, in business offices and factories, in advertising, in education, in social and political life, in artistic creation and esthetic enjoyment, and in everyday life (3 cred.; prereq. A or 1-2)	III	MWF	BuAud	Mr. Paterson and others
4f†-5w†	Introductory Laboratory Psychology—Simple experiments illustrating the subject matter of contemporary psychology. Included are human and animal learning, visual experience, differences in artistic, musical, and other kinds of abilities, measurement of each student's personality traits, and reactions to advertisements (4 cred.; fr.,* soph., jr., sr.; prereq. A, or may be taken with or after 1-2). (Sections limited to 48)				
	Sec. 1	I, II	TTh	211Psy	Mr. Tinker
	2	VI, VII	TTh	211Psy	and others
	3	VIII, IX	TTh	211Psy	
	4	VI, VII	MW	211Psy	
4w†-5s†	Introductory Laboratory Psychology (See 4f-5w)	I, II	MW	211Psy	Ar
4s†-5s†	Introductory Laboratory Psychology (See 4f-5w)				
	Sec. 1	VI, VII	MTThF	211Psy	Mr. Tinker
	2	VIII, IX	MTThF	211Psy	and others

* This course is open to a limited number of first and second quarter freshmen with the approval of their advisers and to third quarter freshmen with a C average.

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$1 per quarter is charged for this course.

§ Psychology 1-2 is intended to be the normal beginning course in psychology and is the course prerequisite to Business, Education, Law, and Medicine, but see footnote to Psy. A. Psychology 1-2, together with Psy. 4-5, meets the natural science requirement for entrance to the Senior College.

¶ Psychology A is intended primarily for students in home economics, nursing, and dental hygiene. Not for students who expect to take Senior College courses in psychology later. Psychology A may not be counted toward meeting the natural science requirement for entrance to the Senior College.

Senior College Courses

In this department courses numbered between 50 and 99 are open to sophomores who have an average grade of at least C in all their courses and an average of B in the prerequisite courses. Senior College courses numbered above 100 are open to third quarter sophomores only when they have at least a C average in all their work and an average of B in the prerequisite courses and when they secure the consent of the instructor.

No.	Title	Hour	Day	Bldg.	Instructor
52s	Genetic Psychology (3 cred.; jr., sr.; prereq. A or 1-2)	IV	MWF	115Psy	Mr. Heron
55s	Psychology of Sensation (3 cred.; jr., sr.; prereq. A or 1-2)	IV	MWF	211Psy	Mr. Tinker
56w	Psychology of Advertising—Psychological analysis of the basic principles underlying advertising and selling. Consumer research is stressed. Research techniques for investigating advertising problems and the analysis of consumer wants are considered in detail (3 cred.; jr., sr.; prereq. A or 1-2 and Principles of Economics)	VII	MWF	206Pt	Mr. Longstaff
65f	Advanced General Psychology—An advanced treatment, with demonstrations, of motivation, emotion, perception, thinking, and learning, developing the relations of psychology to other fields such as the medical and social sciences (3 cred.; jr., sr.; prereq. A or 1-2)	II	TThS	115Psy	Mr. Heron
72	<i>The Psychology of the Fine Arts</i> —An analysis of the production and enjoyment of works of art from the standpoint of psychology, with emphasis on experimental data (3 cred.; jr., sr.; prereq. 1-2) (<i>Not offered</i>)				
74	<i>The Psychology of Literature</i> —The processes involved in the creation and enjoyment of literature. The descriptive and emotive uses of language, the bases of style, metaphor, word-play, the role of unconscious language processes, modern trends toward psychological subject matter (3 cred.; jr., sr.; prereq. 1-2) (<i>Not offered</i>)				
84f	Psychology of Learning (3 cred.; jr., sr.; prereq. 9 cred. in psy.)	III	TThS	109Psy	Mr. Heron
86s	Biographical Psychology—Human personalities in relation to their ancestries, their bodies, and their environments, physical and social (3 cred.; jr., sr.; prereq. 6 cred. in psy.)	II	TThS	115Psy	Mr. Elliott
90f,91w,92s	Readings in Psychology—Tutorially directed reading and preparation of reports on special topics, usually supplementing an advanced course already completed (Cred. ar.; jr., sr.; prereq. 1-2 and 3 additional cred., and written permission of instructor)	Ar	Ar	Ar	Mr. Elliott, Mr. Bird, Mr. Paterson, Mr. Tinker, Mr. Heron, Mr. Longstaff, Mr. Skinner
101f-102w-103s	Experimental Psychology (3 cred. per qtr.; cred. ar. for honors students; jr., sr., grad.; prereq. 1-2; and 4-5 or equiv. in another science)	VII VIII	MWF WF	116Psy	Mr. Tinker
108f	Systems of Psychology—A reading course (3 cred.; jr., sr., grad.; prereq. 1-2 and consent of instructor)	Ar	Ar	Ar	Mr. Elliott
114w	Human Behavior (3 cred.; jr., sr., grad.; prereq. 1-2; 4-5 or Zool. 1-2-3, or Phil. 1)	II	TThS	115Psy	Mr. Elliott
118	<i>Psychology of Language</i> —The nature and forms of verbal behavior; motivational and emotional influences in the emission of speech; the problem of reference or meaning; internal language processes; etc. Emphasis upon experimental data and analyses of written materials (3 cred.; jr., sr., grad.; prereq. 9 cred. in psy. or 6 cred. and permission of instructor) (<i>Not offered</i>)				
120	<i>Psychology of Thought</i> —A psychological, as opposed to a logical, treatment of the processes involved in thinking. Experimental investigations of verbal and nonverbal thinking are surveyed, and the resulting principles are applied to everyday life (3 cred.; jr., sr., grad.; prereq. 9 cred. in psy. or 6 cred. in psy. and a course in philosophy) (<i>Not offered</i>)				

No.	Title	Hour	Day	Bldg.	Instructor
125f-126w	Psychology of Individual Differences (6 cred.; cred. ar. for honors students; jr., sr., grad.; prereq. 1-2; 4-5 or 5 cred. in statistics)	II	MWF	115Psy	Mr. Paterson
127s	Projects in the Psychology of Individual Differences (3 cred.; jr., sr., grad.; primarily for majors in Sequence C; prereq. 125-126)	Ar	Ar	Ar	Mr. Paterson
130w†	Vocational and Occupational Psychology (3 cred.; jr., sr., grad.; prereq. 9 cred. in psy.)	IV	TS	211Psy	Mr. Paterson
	Lect.	V, VI	F	211Psy	
	Lab. Sec. 1	II, III	S	211Psy	
	2				
130s†	Vocational and Occupational Psychology (See 130w)	IV	TS	211Psy	Mr. Paterson
	Lect.	VI-VII	W	211Psy	
	Lab. Sec. 1	VIII-IX	W	211Psy	
	2				
140w	Social Psychology (3 cred.; jr., sr., grad.; prereq. 9 cred. in psy.; or 6 cred. in psy. and either Zool. 1-2-3 or 12 cred. in soc. sci.)	III	TThS	206Pt	Mr. Bird
141s	Political Psychology (The same as Political Science 171) (3 cred.; jr., sr., grad.; prereq. same as 140)	III	TThS	206Pt	Mr. Bird
144f-145w	Abnormal Psychology (6 cred.; jr., sr., grad.; prereq. 9 cred. in psy.; or 6 cred. in psy. and either Zool. 1-2-3 or 12 cred. in soc. sci.)	IV	MWF	206Pt	Mr. Bird
148w	Physiological Psychology—The topics treated and illustrated by demonstrations will include the elements of neural anatomy and physiology, tonus, neuromuscular set, integration, and the neural basis of learning. The treatment of these topics will stress their importance for psychology (3 cred.; jr., sr., grad.; prereq. 1-2; 4-5 or Zool. 1-2-3, or consent of instructor)	III	MWF	115Psy	Mr. Hathaway
151f	Animal Psychology—The history of the subject and its philosophical and biological foundations; consciousness and its criteria; sensory processes (3 cred.; jr., sr., grad.; prereq. 1-2; 4-5 or equiv. in another science)	VI	MWF	109Psy	Mr. Heron
152w	Animal Psychology—Emphasis upon the motivation of behavior; learning; conditioning; insight; reasoning; thinking; judgment; social influences (3 cred.; jr., sr., grad.; prereq. 1-2; 4-5 or equiv. in another science)	VI	MWF	109Psy	Mr. Heron
153s	Individual Investigations in Animal Psychology (3 cred.; jr., sr., grad.; prereq. 151 or 152)	Ar	Ar	Ar	Mr. Heron
160f	Psychology in Personnel Work (3 cred.; jr., sr., grad.; prereq. 1-2, and Principles of Economics or 9 cred. in political science)	III	MWF	206Pt	Mr. Longstaff
171w-172s	Introduction to Clinical Psychology—A survey of the methods of clinical psychology in relation to mental deficiency, special abilities and disabilities, behavior problems, personality disorders, and psychosomatic disturbances in adults and children (6 cred.; sr., grad.; prereq. 144 and 9 additional cred. in psy. or child welfare, or ed. psy., and permission of instructor)	VI	MWF	115Psy	Mr. Meehl, Mr. Hathaway

For Graduate Students Only

- 200-201-202 History of Psychology I
- 203-204-205 History of Psychology II
- 210-211-212 Research Problems
- 215-216-217 Basic Seminar in Psychology
- 225 Seminar in Contemporary Research
- 250-251-252 Topics in Psychology

† A fee of \$1 is charged for this course.

No.	Title	Hour	Day	Bldg.	Instructor
256	Advanced Psychology of Advertising				
260-261-262	Seminar in the Applications of Psychological Methods to the Study of Nervous and Mental Diseases				
286	Advanced Biographical Psychology				
295-296-297	Seminar in Individual Differences and Applied Psychology				

PUBLIC HEALTH

MEDICAL SCHOOL

Advisers in the College of Science, Literature, and the Arts—Professors Anderson and Boynton; and Associate Professor Treloar for Biostatistics.

Major advisers in the College of Education—Professors Anderson and Boynton; Associate Professors Freeman and Grout.

Major sequence in Biostatistics in the College of Science, Literature, and the Arts—Courses 110, 111, 120, 121, 130, 131, and 18 credits in Senior College courses approved by the adviser.

Modifications of this sequence will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

Minor sequence in Public Health in the College of Education—Courses 50, 51, 57, 59, 102, Bact. 53, and Physiology 2, 4, or 51.

Major sequence in Public Health Nursing—P.H. 53, 62, 63, 65, 66, 67, 81, 133; additional P.H. courses, 8 credits. (Ed.T. 50 and H.E. 76 may be counted as P.H. courses to satisfy this requirement of 8 credits.)

Additional requirements—Social science (other than sociology), 9 credits; Freshman English or exemption from the requirement; Bact. 53 or 101; Psy. 1-2; Soc. 1, 49, 50, 91, or 129, and 3 additional credits in Child Welfare; natural science courses, 14 credits.

Note—The sequence leads to a B.S. degree with a major in public health nursing, the nine-month certificate course having been discontinued except for students already holding a B.A. or B.S. degree.

For additional details of courses of study in public health consult the Bulletin of the School of Public Health.

Junior College Courses

3f§	Personal Health (2 cred.; fr., soph.; no prereq.; not open to students who have taken Human Biol. G.C. 10C in the General College)	VI	MW	BuAud	Dr. O'Brien
3w§	Personal Health (See 3f)	VII	TTh	BuAud	Dr. O'Brien
3s§	Personal Health (See 3f)	VI	MW	BuAud	Dr. O'Brien
4w,s§	Health Problems of Adult Life (2 cred.; prereq. 3; not open to students who have taken Human Biol. G.C. 10C in the General College)	VI	TTh	*	Dr. Potthoff

Senior College Courses

Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

50w§	Public and Personal Health (3 cred.; open to jrs. and srs. who have not taken Courses 3, 4, 52, 53, or Human Biol. G.C. 10C in the General College; no prereq.)	III	MWF	*	Dr. Potthoff
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* Classroom schedule will be posted on bulletin board outside of Room 121 Millard Hall at the beginning of each quarter.

§ No credit is granted for this course in the major sequence in Public Health Nursing.

No.	Title	Hour	Day	Bldg.	Instructor
50s‡	Public and Personal Health (See 50f)	II	MWF *		Dr. Potthoff
51f‡	Community Hygiene (3 cred.; jr., sr.; prereq. 3, or Human Biol. General College; not open to students who have taken 4, 52, or 53)	II	MWF *		G.C. 10C in the Dr. Potthoff
51w‡	Community Hygiene (See 51f)	VII	MWF *		Dr. Potthoff
52w,s‡	Health Care of the Family (3 cred.; jr., sr.; prereq. Bact. 53, Physiol. 4; not open to students who have taken Course 50) (Lab. sections limited to 20)				
	Lect.	VI	MW	313HE,	Dr. Todd,
	Lab.			01McH(UF)	Miss Bestul
	Sec. 1	VI-VII	F		
	2	VII-VIII	T		
	3	VII-VIII	Th		
53f,s	Elements of Preventive Medicine and Public Health (For nurses and students in medical social work and others by permission) (5 cred.; prereq. 3 or 50, or equiv., and a course in bacteriology)				
	Lect.	II	MWF *		Dr. Cowan
	Rec. Sec. 1	III	TTh *		
	2	VI	TTh *		
55w	Nursing and Social Problems in the Control of Gonorrhoea and Syphilis (2 cred.; prereq. 53 and 62. Soc. 90 or 109 may be substituted by medical social service students. Course 55 may be taken concurrently with any of these prerequisites)				
		III	MW *		Miss Freeman
56s	First Aid and Safety for Nurses (3 cred.; nurses only)	VI, VII, VIII	TTh *		Dr. Weaver
57w‡	Health of Infant and Preschool Child (2 cred.; jr., sr.; prereq. 4, 50, 52, or 53)	II	MF *		Dr. Boynton
58w	Maternal and Child Hygiene (For nurses only) (3 cred.; prereq. 53, 62)	II	MF *		Dr. Boynton
					and 1 hr. ar.
59f,s**	Health of the School Child (3 cred.; jr., sr.; prereq. 3 and 4, 50, 52, or 53; will be waived for teachers and school nurses, but credit granted only after completion of prereq.)	II	MWF *		Miss Groat, Miss Bestul
60f,s	Tuberculosis and Its Control (For nurses; others may be admitted by special permission) (2 cred.; prereq. 4, 50, 52, or 53 and 62 which may be taken concurrently)	IV	TS *		Dr. Myers
62f-63w†‡‡	Principles of Public Health Nursing (For nurses only) (3 cred. per qtr.; jr., sr.)	IV	MWF *		Ar
	Sec. 1¶	IV	MWF *		Ar
	2¶	VI	MWF *		Miss Freeman
63s	Principles of Public Health Nursing (See 62f-63w)	IV	MWF *		Miss Freeman
65,66,67f,w,s††	Field Practice in Public Health Nursing†† (For public health nurses only) (Cred. ar.; jr., sr.; prereq. 53, 62) The credits are to be allowed, according to experience, to these special fields:				
	P.H. 65—School Nursing (prereq. 67)				
	P.H. 66—Rural Nursing (prereq. 67)				
	P.H. 67—Family Health Agency				
		Ar	Ar *		Miss Freeman and associates

* Classroom schedule will be posted on bulletin board outside of Room 121 Millard Hall at the beginning of each quarter.

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡‡ A fee of \$50 a month is charged for this course.

§ No credit is granted for this course in the major sequence in Public Health Nursing.

¶ Sec. 1 is for students who have not had practical experience in public health nursing; Sec. 2 is for students who have had such experience.

** A student cannot receive credit for both Course 59 and Course 69.

†† Students must maintain a C average in theory completed before they are admitted to field work.

‡‡‡ During 1944-45 will also be given in winter and spring quarters if sufficient demand exists; hours to be arranged.

No.	Title	Hour	Day	Bldg.	Instructor	
69‡	<i>School Nursing</i> (2 cred.; prereq. 53, and 62, 63 and 65, 66 or some field experience, but may be taken simultaneously with 63) (<i>Not offered</i>)					
70w,‡	Practice Teaching in Home Nursing for Public Health Nurses (Cred. ar.; jr., sr.; prereq. 67, 81, or permission of instructor) (Enrolment is limited)	Ar	Ar	*	Miss Bestul, Miss Grout	
76f	Nutrition in Public Health Nursing (The same as Home Economics 76) (3 cred.; jr., sr.; prereq. 62 which may be taken concurrently)	II	TThS	*	Miss Donelson	
102w	Environmental Sanitation I (3 cred.; sr., grad.; prereq. 50 or 53 or 100 or permission of instructor. This course may be taken concurrently with any of these prerequisites)	I	MWF	*	Mr. Pierce,‡ Mr. Whit- taker	
103f,w,§	Public Health Bacteriology (Cred. ar.; jr., sr., grad.; prereq. Bact. 101-102, 116 and permission of instructor)	Ar	Ar	*	Dr. Heathman	
104f	Epidemiology I (3 cred.; sr., grad.; prereq. 53 or 100 and consent of instructor)	I	TThS	*	Ar	
105	<i>Epidemiology II</i> (3 cred.; sr., grad.; prereq. 104) (<i>Not offered</i>)					
106f	Public Health Administration (3 cred.; physicians, engineers, nurses, social workers, and others by arrangement; prereq. 53, 100, 109 or equiv. Course 106 may be taken concurrently with any of the prerequisites)	I	TThS	*	Ar	
107	<i>Child and Adult Hygiene</i> (3 cred.; physicians; graduate students in public health nursing and social work admitted by permission of instructor) (<i>Not offered</i>)					
108w	Care of the Handicapped Child (For physicians and nurses) (2 cred.; prereq. 53, 57, 58 or 100 or permission of instructor)	VI	TTh	*	Ar	
109	<i>Epidemiology III</i> (3 cred.; sr., grad.; prereq. 104 and 105) (<i>Not offered</i>)					
122f	Public Health Administration Problems (Cred. ar.; prereq. 106)	Ar	Ar	*	Ar	
125w	The Community Health Education Program (3 cred.; prereq. 53 or 104, and 106 or to be taken concurrently with 106 or permission of instructor)	Ar	Ar	*	Miss Grout	
126s	Industrial Health Problems (3 cred.; prereq. 53, Chem. 1-2 or equiv., or by permission of department)	Ar	Ar	*	Ar	
133w	Mental Hygiene Aspects of Public Health Nursing (The same as Medicine 133) (3 cred.; jr., sr., grad.; prereq. 62 or experience)	Lect.	II	TTh	*	Dr. Clarke
	Rec. Sec. 1	II	S	*	Miss Shalit	
	2	III	S	*	Miss Shalit	
135s	Conservation of Hearing (For nurses only) (1 cred.; jr., sr., grad.; prereq. 53 and 62 or to be taken concurrently)	I	M	*	Dr. Boies and associates	
136s	Sight Conservation (For nurses only) (1 cred.; jr., sr., grad.; prereq. 53 and 62 or to be taken concurrently)	I	W	*	Dr. Hanson and associates	
137s	Dental Hygiene (For nurses only) (1 cred.; jr., sr., grad.; prereq. 53 and 62 or to be taken concurrently)	I	F	*	Dr. Lasby and associates	
170s	Supervision in Public Health Nursing (For public health nurses only) (3 cred.; sr., grad.; prereq. 53, 61 or 133, 63 and experience in public health nursing or by permission of instructor)	III	TThS	*	Miss Freeman	

* Classroom schedule will be posted on bulletin board outside of Room 121 Millard Hall at the beginning of each quarter.

‡ A fee of \$1 per credit is charged for this course.

§ A student cannot receive credit for both Course 59 and Course 69.

¶ On military leave.

No.	Title	Hour	Day	Bldg.	Instructor
171f,w,s	Problems in Public Health Nursing (For public health nurses only) (Cred. ar.; sr., grad.; prereq. 170, or permission of instructor)	Ar	Ar	*	Miss Freeman and staff
173f,w,s,††	Field Work in Supervision (For public health nurses only) (Cred. ar.; sr., grad.; prereq. 170 which may be taken concurrently)	Ar	Ar	*	Miss Freeman
174s	Supervision Laboratory (For public health nurses only) (2 cred.; to be taken concurrently with 170)	Ar	Ar	*	Miss Freeman
190f,w,s	Field Work in the Community Health Education Program (Cred. ar.; prereq. 125, 227)	Ar	Ar	*	Miss Grout
<i>For Graduate Students Only</i>					
200f,w,s	Research	Ar	Ar	*	Dr. Boynton, Dr. Diehl, and others
210f,w,s	Seminar in Public Health (By permission)	Ar	Ar	*	Dr. Boynton and staff
227f,w,s	Problems in the Community Health Education Program (Cred. ar.; prereq. consent of instructor)	Ar	Ar	*	Miss Grout

For courses in public health offered to physicians and engineers, see the Bulletin of the Graduate School, or the Bulletin of the School of Public Health.

BIostatISTICS

90§	Measurement in Medicine (2 cred.; medical students only)	Ar	Ar	*	Mr. Treloar
110f	Biometric Principles (3 cred.; jr., sr., grad.; prereq. 18 cred. in biol. sci. or math. through anal. geom.; to be taken with 111)	III	TThS	*	Mr. Treloar
110s	Biometric Principles (See 110f)	I	TThS	*	Mr. Treloar
111f,s,†	Biostatistics Laboratory (2 cred.; to be taken with 110)	Ar	Ar	118MH	Mrs. Behn
120w	Correlation Analysis (3 cred.; sr., grad.; prereq. 110 or consent of instructor; to be taken with 121)	III	TThS	*	Mrs. Behn
121w,†	Correlation Laboratory (2 cred.; to be taken with 120)	Ar	Ar	118MH	Mrs. Behn
130s	Statistical Inference (3 cred.; sr., grad.; prereq. 110 or consent of instructor)	III	TThS	*	Mr. Treloar
131s,†	Sampling Laboratory (2 cred.; to be taken with 130)	Ar	Ar	118MH	Mrs. Behn
140f,w,s,†	Topics in Biostatistics (Cred. ar.; sr., grad.; prereq. 120 and 130, or consent of instructor)	Ar	Ar	118MH	Mr. Treloar
150w,†	Vital Statistics (3 cred.; prereq. permission of instructor)	Ar	Ar	*	Mr. Treloar
200f,w,s	Research in Biostatistics (Cred. ar.; prereq. permission of instructor)	Ar	Ar	*	Mr. Treloar
211f,w,s	Seminar in Biostatistics (1 cred.)	Ar	Ar	*	Mr. Treloar

* Classroom schedule will be posted on bulletin board outside of Room 121 Millard Hall at the beginning of each quarter.

† A fee of \$1 per quarter is charged for this course.

†† A fee of \$3 per quarter is charged for this course.

‡ For the duration of the war, the schedule of this class is uncertain. Students wishing to take it should consult the department.

RADIO

Courses relating to radio are offered by the School of Journalism and the Department of Speech to juniors and seniors who have had the fundamental prerequisite courses.

ROMANCE LANGUAGES

Major advisers in the College of Science, Literature, and the Arts—Associate Professor Grismer; Assistant Professors Clefton, Brackney.

Major sequences in the College of Science, Literature, and the Arts—

FRENCH

Courses 70-71-72 or 73-74; 53-54, if the student has not taken French 20; a minimum of 18 additional credits chosen from courses numbered 50 or above, of which at least 9 must be in literary courses.

ITALIAN

Twenty-four credits in courses numbered 50 or above, and 3 additional credits chosen from the following: English 140, 146-147, 148-149; French 121-122-123, 153; Italian 159-160, 161-162; Latin 121; History 153-154-155.

SPANISH

Courses 65-66-67 or 68-69; 53-54, if the student has not taken Spanish 20; 55; a minimum of 15 additional credits chosen from courses numbered 50 or above. Students planning to do graduate work in Spanish must include in this program 9 credits in literary courses numbered above 100.

A COURSE IN LATIN-AMERICAN STUDIES

See the Bulletin of the College of Science, Literature, and the Arts.

MIXED (FRENCH, ITALIAN, AND SPANISH)

Five credits in conversation and composition.

One literary course above 50, and in addition enough credits chosen from courses in any of the three languages numbered 50 or above to make a minimum of 27 credits in all.

Modifications of these sequences will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

Major advisers in the College of Education—French: Assistant Professor Clefton; Spanish: Associate Professor Pattison.

Requirements for a teacher's certificate—Major recommendation in French: 35 credits in courses numbered above 4, these courses to include Survey of French Literature and one other literary course; 50; 53, 54 (or 20); 63; and 103-104-105.

Major recommendation in Spanish: 35 credits in courses numbered above 4, these courses to include 65-66-67 or 68-69 or 74-75-76; 50; 53, 54 (or 20); 60.

Minor recommendation: 17 credits in one language in courses numbered above 4 including Survey of French Literature, Survey of Spanish Literature, or Survey of South American Literature.

Admission to advanced courses—No student will be allowed to elect courses more advanced than intermediate French or Spanish unless he has received an average grade of C in the intermediate courses.

FRENCH

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
1f-2w	Beginning French (10 cred.; no prereq.)	I	MTWThF	227F	Ar
		VI	MTWThF	226F	Ar
1w-2s	Beginning French (See 1f-2w)	III	MTWThF	101F	Ar
1s	Beginning French (1st qtr. of 1-2. See 1f-2w)	III	MTWThF	114F	Ar
2f	Beginning French (2nd qtr. of 1-2. See 1f-2w)	III	MTWThF	202F	Ar
3f-4w	Intermediate French (10 cred.; prereq. 1-2, or two years of high school French. Students who have had three years of high school French will omit Course 3 and take Course 4)	III	MTWThF	226F	Ar
		VII	MTWThF	202F	Ar
3w-4s	Intermediate French (See 3f-4w)	III	MTWThF	202F	Ar
3s	Intermediate French (1st qtr. of 3-4). (See 3f-4w)	I	MTWThF	227F	Ar
		VI	MTWThF	226F	Ar
4f	Intermediate French (2nd qtr. of 3-4; prereq. 3, or three years of high school French)	II	MTWThF	212F	Ar
		VI	MTWThF	101F	Ar
		III	MTWThF	226F	Ar
20s	Oral and Written French (5 cred.; prereq. 4, or four years of high school French)	III	MTWThF	226F	Ar

Senior College Courses

Senior College courses with numbers less than 100 are open to Junior College students who have an average grade of at least C in the prerequisite courses. Other Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

50w	French Pronunciation (3 cred.; jr., sr.; prereq. 3-4)	II	TThS	203F	Miss Guinotte
52s	French Pronunciation and Diction (Open only to candidates for the French play) (1 or 2 cred.; jr., sr.; prereq. 3-4)	Ar	Ar	Ar	Ar
		VI	MWF	205F	Mr. Fermaud
54w-55s	French Conversation (6 cred.; jr., sr.; prereq. 53 or 20)	VI	MWF	205F	Mr. Fermaud
63f-64w	Advanced French Composition (6 cred.; jr., sr.; prereq. 53 or 20 with a grade of B)	II	MWF	203F	Miss Guinotte
		II	MWF	203F	Miss Guinotte
65s	Advanced French Conversation (3 cred.; jr., sr.; prereq. 54-55 or 20 with a grade of B)	II	MWF	203F	Miss Guinotte
70f-71w-72s	Survey of French Literature (9 cred.; jr., sr.; prereq. 3-4)	IV	MWF	201F	Mr. Clefton
		III	MTWThF	108F	Mr. Brackney
73w-74s	Survey of French Literature (10 cred.; jr., sr.; prereq. 3-4)	III	MTWThF	108F	Mr. Brackney
75f	French Civilization and Culture (5 cred.; jr., sr.; prereq. 3-4)	III	MTWThF	108F	Mr. Fermaud
80f	French Literature: 19th Century—Chateaubriand and Romantic Prose (3 cred.; jr., sr.; prereq. *)	II	MWF	201F	Mr. Barton
		II	MWF	201F	Mr. Barton

* Prerequisite is 70-71-72 or 73-74.

† Students who have had three years of high school French may be admitted to Course 20 with the consent of the department.

No.	Title	Hour	Day	Bldg.	Instructor
81w	French Literature: 19th Century—Drama (3 cred.; jr., sr.; prereq.*)	II	MWF	201F	Mr. Barton
82s	French Literature: 19th Century—Poetry (3 cred.; jr., sr.; prereq.*)	II	MWF	201F	Mr. Clefton
90f-91w-92s	Reading in the Student's Major Field (English, History, Philosophy, etc.) (1 or 2 cred. per qtr.; jr., sr.; prereq. 4 and consent of instructor)	Ar	Ar	Ar	Ar
103-104-105	<i>French Syntax and Composition</i> (3 cred.; jr., sr., grad.; prereq. 63 or registration in 63) (<i>Not offered</i>)				
115f	French Literature: 17th Century—Formation of Classic Ideal (3 cred.; jr., sr., grad.; prereq.*)	IV	MWF	203F	Mr. Fermaud
116w	French Literature: 17th Century—Classical Theatre (3 cred.; jr., sr., grad.; prereq.*)	IV	MWF	203F	Mr. Fermaud
117s	French Literature: 17th Century—Moral and Didactic Literature (3 cred.; jr., sr., grad.; prereq.*)	IV	MWF	203F	Mr. Fermaud
118f-119w-120s	French Literature: 18th Century (9 cred.; jr., sr., grad.; prereq.*)	Ar	Ar	Ar	Mr. Sirich
121-122-123	<i>French Literature: 16th Century</i> (9 cred.; jr., sr., grad.; prereq. 9 cred. in literature courses above 74) (<i>Not offered</i>)				
130	<i>French Romantic Poetry—Victor Hugo</i> (3 cred.; jr., sr., grad.; prereq.*) (<i>Not offered</i>)				
131	<i>Parnassian Poetry</i> (3 cred.; jr., sr., grad.; prereq.*) (<i>Not offered</i>)				
132	<i>Verlaine, Rimbaud, and the Symbolists</i> (3 cred.; jr., sr., grad.; prereq.*) (<i>Not offered</i>)				
146-147	<i>Contemporary French Dramatic Literature</i> (4 cred.; jr., sr., grad.; prereq.*) (<i>Not offered</i>)				
156	<i>French Realistic Novel</i> (3 cred.; jr., sr., grad.; prereq.*) (<i>Not offered</i>)				
157	<i>French Novel, 1880-1915</i> (3 cred.; jr., sr., grad.; prereq.*) (<i>Not offered</i>)				
158	<i>Contemporary French Novel I</i> —Course conducted in French (3 cred.; jr., sr., grad.; prereq.*) (<i>Not offered</i>)				
159s	<i>Contemporary French Novel II</i> —A continuation of French 158 (3 cred.; jr., sr., grad.; prereq.*)	VII	MWF	227F	Mr. Fermaud
171f-172w-173s†	History of French Language (3 cred.; jr., sr., grad.; prereq. one year of Latin or permission of instructor)	Ar	Ar	203F	Mr. Brackney

Seminars

201f-202w-203s	Old French Phonology and Morphology (6 cred.)	Ar	Ar	203F	Mr. Brackney
204f-205w-206s	Reading in Old French Literature (6 cred.)	Ar	Ar	203F	Mr. Brackney
225f-226w-227s	French Seminar: Modern Period (6 cred.)	4:00 to 6:00	W	203F	Ar

ITALIAN

Junior College Courses

1f-2wf	Beginning Italian (8 cred.; no prereq.)	IV	MTWF	302F	Miss Nissen
3s or 4s	Intermediate Italian (4 cred.; prereq. 3, or 2 with grade of C)	IV	MTWF	302F	Miss Nissen
5wf	Reading Knowledge of Italian (5 cred.; prereq. knowledge of French, Latin, or Spanish. No previous knowledge of Italian is necessary)	VI	MTWThF	302F	Miss Nissen

* Prerequisite is 70-71-72 or 73-74.

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ Credit will not be given for both Course 1 and Course 5.

Senior College Courses

Senior College courses with numbers less than 100 are open to Junior College students who have an average grade of at least C in the prerequisite courses. Other Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

No.	Title	Hour	Day	Bldg.	Instructor
69f	Survey of Italian Literature I (3 cred.; jr., sr.; prereq.§)	II	MWF	302F	Miss Nissen
70w	Survey of Italian Literature II (3 cred.; jr., sr.; prereq.§)	II	MWF	302F	Miss Nissen
71	<i>Modern Poetry (Leopardi, Carducci)</i> (3 cred.; jr., sr.; prereq.§) (<i>Not offered</i>)				
72	<i>Modern Drama (Giacosa, Bracco, Pirandello)</i> (3 cred.; jr., sr.; prereq.§) (<i>Not offered</i>)				
73a	Boccaccio (3 cred.; jr., sr.; prereq.§)	II	TTh	302F	Miss Nissen
		and 1 hr. ar.			
74	<i>Petrarch</i> (3 cred.; jr., sr.; prereq.§) (<i>Not offered</i>)				
159f-160w	Dante (6 cred.; jr., sr., grad.; prereq. one course above 50)	II	TTh	302F	Miss Nissen
		and 1 hr. ar.			
161-162	<i>The Sixteenth Century</i> (6 cred.; jr., sr., grad.; prereq. one course above 50) (<i>Not offered</i>)				

PORTUGUESE

1f-2w	Beginning Portuguese (10 cred.; prereq. Span. 1-2 or French 1-2 or permission of instructor)	VII	MTWThF	201F	Ar
3a	Intermediate Portuguese (5 cred.; prereq. 1-2)	VII	MTWThF	201F	Ar

SPANISH

Junior College Courses

1f-2w	Beginning Spanish (10 cred.; no prereq.)	I	MTWThF	226F	Ar
		IV	MTWFS	226F	Ar
		VI	MTWThF	227F	Ar
		VII	MTWThF	113F	Ar
1w-2s	Beginning Spanish (See 1f-2w)	III	MTWThF	109F	Ar
		VII	MTWThF	109F	Ar
1s	Beginning Spanish (1st qtr. of 1-2. See 1f-2w)	II	MTWThF	226F	Ar
		III	MTWThF	113F	Ar
2f	Beginning Spanish (2nd qtr. of 1-2. See 1f-2w)	II	MTWThF	202F	Ar
3f-4w	Intermediate Spanish (10 cred.; prereq. 1-2 or two years of high school Spanish. Students who have had three years of high school Spanish will omit Course 3 and take Course 4)	II	MTWThF	226F	Ar
		VI	MTWThF	110F	Ar
3w-4s	Intermediate Spanish (See 3f-4w)	II	MTWThF	202F	Ar
3s	Intermediate Spanish (1st qtr. of 3-4. See 3f-4w)	I	MTWThF	226F	Ar
		IV	MTWFS	226F	Ar
		VI	MTWThF	227F	Ar
		VII	MTWThF	113F	Ar

§ The prerequisite is Course 3 or Course 4; but for students beginning Italian in the Senior College it may be Course 1-2 or 5 with permission of the instructor.

No.	Title	Hour	Day	Bldg.	Instructor
4f	Intermediate Spanish (2nd qtr. of 3-4; prereq. 3, or three years of high school Spanish)	II	MTWThF	227F	Ar
		IV	MTWFS	227F	Ar
		VI	MTWThF	201F	Ar
		III	MTWThF	114F	Mr. Zentz
20w	Oral and Written Spanish (5 cred.; prereq. 4 or four½ years of high school Spanish)	III	MTWThF	114F	Mr. Zentz
20s	Oral and Written Spanish (See 20f)	III	MTWThF	125F	Mr. Zentz
30s	Spanish Commercial Correspondence (5 cred.; prereq. 4)	VII	MTWThF	202F	Mr. Cúneo

Senior College Courses

Senior College courses with numbers less than 100 are open to Junior College students who have an average grade of at least C in the prerequisite courses. Other Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

50w,s	Spanish Pronunciation (3 cred.; jr., sr.; prereq. 4)	II	TThS	227F	Mrs. Mills
51	<i>Advanced Spanish Pronunciation and Diction</i> (3 cred.; jr., sr.; prereq. 50) (<i>Not offered</i>)				
52w	Spanish Pronunciation and Diction (Must be elected by candidates for the Spanish play; open to others with permission of instructor) (2 cred.; jr., sr.; prereq. 3-4)	VII	MWF	227F	Mr. Cúneo
		II	TThS	206F	Mr. Cúneo
53f	Spanish Composition (3 cred.; jr., sr.; prereq. 3-4)	III	TThS	201F	Mr. Cúneo
		II	TThS	201F	Mr. Cúneo
54w-55s	Spanish Conversation (6 cred.; jr., sr.; prereq. 53 or 20)	III	TThS	201F	Mr. Cúneo
		II	TThS	201F	Mr. Cúneo
60f	Advanced Spanish Composition (3 cred.; jr., sr.; prereq. 53 or 20 with grade of B)	IV	MWF	108F	Mr. Terán
		III	TThS	201F	Mr. Cúneo
61w-62s	Advanced Spanish Conversation (6 cred.; jr., sr.; prereq. 54-55 or 20 with grade of B)	IV	MWF	108F	Mr. Terán
65f-66w-67s	Survey of Spanish Literature (9 cred.; jr., sr.; prereq. 3-4)	VI	MWF	202F	Mr. Pattison
		VI	MTWThF	201F	Mr. Grismer
68w-69s	Survey of Spanish Literature (10 cred.; jr., sr.; prereq. 3-4)	III	MWF	203F	Mr. Cúneo
		II	MWF	304F	Mr. Terán
70f-71w-72s	Latin-American Culture (9 cred.; jr., sr.; prereq. 4 with grade of B or permission of instructor)	II	MWF	304F	Mr. Terán
74f-75w-76s	Survey of Spanish-American Literature: Contemporary Prose and Poetry (9 cred.; jr., sr.; prereq. 3-4)	VII	T	203F	Ar
		IV	MWF	316F	Mr. Pattison
103f-104w-105s	Spanish Syntax and Composition (3 cred.; jr., sr., grad.; prereq. 60 or registration in 60)	II	MWF	205F	Mr. Grismer
110f-111w-112s	Spanish Literature: 19th Century (9 cred.; jr., sr., grad.; prereq.§)	IV	MWF	316F	Mr. Pattison
115f-116w-117s	Spanish Literature: 17th Century (9 cred.; jr., sr., grad.; prereq.§)	II	MWF	205F	Mr. Grismer
		II	MWF	205F	Mr. Grismer
120	<i>The Ballad</i> (3 cred.; jr., sr., grad.; prereq.§) (<i>Not offered</i>)				
130	<i>Cervantes: Don Quijote</i> (3 cred.; jr., sr., grad.; prereq.§) (<i>Not offered</i>)				
131	<i>The Picaresque Novel</i> (3 cred.; jr., sr., grad.; prereq.§) (<i>Not offered</i>)				
140f-141w-142s	Contemporary Latin-American Literature (9 cred.; jr., sr., grad.; prereq. 65-66-67 or 68-69 or 74-75-76)	III	TThS	203F	Mr. Terán
155-156-157	<i>Spanish Literature: 16th Century</i> (9 cred.; jr., sr., grad.; prereq.§) (<i>Not offered</i>)				

§ The prerequisite is 65-66-67 or 68-69.

¶ Students who have had three years of high school Spanish may be admitted to Course 20 with the consent of the department.

No.	Title	Hour	Day	Bldg.	Instructor
171f-172w-173s	History of the Spanish Language (3 cred.; jr., sr., grad.; prereq. 4 and 1 yr. of Latin or permission of instructor)				
		Ar	Ar Ar		Mr. Grismer
174-175-176	<i>Contemporary Spanish Literature</i> (9 cred.; jr., sr., grad.; prereq.*) (<i>Not offered</i>)				

Seminars

241-242-243	<i>Old Spanish Philology</i> (6 cred.) (<i>Not offered</i>)				
244f-245w-246s	Readings in Old Spanish Literature (6 cred.)	Ar			
250f-251w-252s	Spanish Seminar (6 cred.)		Ar Ar		Mr. Grismer
		Ar	Ar Ar		Mr. Pattison
253f-254w-255s	Seminar in Spanish-American Literature (6 cred.)	Ar			
			Ar Ar		Mr. Terán

RUSSIAN

1f-2w	Beginning Russian (10 cred.; no prereq.)	VI	MTWThF	203F	Mr. Reichardt
3s	Intermediate Russian (5 cred.; prereq. 1-2)	VI	MTWThF	203F	Mr. Reichardt
4-5-6	<i>Advanced Russian</i> (9 cred.; prereq. 3) (<i>Not offered</i>)				
101f-102w-103s†	Survey of Russian Literature (9 cred.; jr., sr., grad.; prereq. 8 cred. in literature)	VII	MWF	205F	Mr. Reichardt

SCANDINAVIAN

Junior College Courses

1f-2w	Beginning Norwegian (10 cred.; no prereq.)	I	MTWThF	12F	Ar
3s	Intermediate Norwegian (5 cred.; prereq. 1-2 or equiv.)	I	MTWThF	12F	Ar
4f-5w-6s	Advanced Norwegian (9 cred.; prereq. 1-2-3 or equiv.)	Ar	Ar	12F	Ar
7f-8w	Beginning Swedish (10 cred.; no prereq.)	II	MTWThF	12F	Mr. Gustafson
9s	Intermediate Swedish (5 cred.; prereq. 7-8 or equiv.)	II	MTWThF	12F	Mr. Gustafson
10f-11w-12s	Advanced Swedish (9 cred.; prereq. 7-8-9 or equiv.)	Ar	Ar	12F	Mr. Gustafson
22w‡	Scandinavian Life Today and Yesterday (3 cred.; no prereq.)	IV	MWF	12F	Mr. Gustafson

Senior College Courses

Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

51‡	<i>Scandinavian Literature in the 19th Century</i> (2 cred.; jr., sr.; prereq. 4-5-6 or 10-11-12 or 8 cred. in literature) (<i>Not offered</i>)				
52‡	<i>Characteristic Trends in Contemporary Scandinavian Literature</i> (2 cred.; jr., sr.; prereq. 4-5-6 or 10-11-12 or 8 cred. in literature) (<i>Not offered</i>)				
153s	The Modern Scandinavian Home As an Expression of Northern Art (The same as Art Ed. 153) (3 cred.; jr., sr., grad.)				
		4:30-6:00 p.m.	Th	203J	Miss Lien
		and ar			
161f‡	The Modern Scandinavian Novel (3 cred.; jr., sr., grad.; prereq. 4-5-6 or 10-11-12 or 8 cred. in literature)	III	MWF	12F	Mr. Gustafson

* The prerequisite is 65-66-67 or 68-69.

‡ No knowledge of Scandinavian languages is required.

† No knowledge of Russian language is required.

No.	Title	Hour	Day	Bldg.	Instructor
171s§	The Modern Scandinavian Drama (3 cred.; jr., sr., grad.; prereq. 4-5-6 or 10-11-12 or 8 cred. in literature)	III	MWF	12F	Mr. Gustafson
180§	<i>Old Norse Literature</i> (The same as German 196a) (4 cred.; sr., grad.; prereq. 8 cred. in literature) (<i>Not offered</i>)				
182§	<i>Germanic Mythology</i> (The same as German 119) (3 cred.; sr., grad.; prereq. 8 cred. in literature) (<i>Not offered</i>)				
183s§	Germanic Heroic Poetry (The same as German 118) (3 cred.; sr., grad.; prereq. 8 cred. in literature)	Ar	Ar	Ar	Mr. Reichardt
185	<i>History of the Scandinavian Languages</i> (3 cred.; sr., grad.; prereq. 4-5-6 or 10-11-12 or at least one Germanic language) (<i>Not offered</i>)				
192	<i>Gothic</i> —Introduction to Germanic linguistics (The same as German 192) (4 cred.; sr. with completed major sequence, grad.) (<i>Not offered</i>)				
195	<i>Introduction to Old Norse Language and Literature</i> (The same as German 195) (4 cred.; sr., grad.; prereq. 192 or permission of instructor) (<i>Not offered</i>)				
196	<i>Eddic Poetry</i> (The same as German 196) (3 cred.; sr., grad.; prereq. 195) (<i>Not offered</i>)				

For Graduate Students Only

215-216-217	<i>Studies in Scandinavian Romanticism</i> (<i>Not offered</i>)				
218f-219w-220s	Studies in Late Nineteenth-Century Scandinavian Literature				Mr. Gustafson
221f-222w-223s	Biographical Problems in Strindberg				Mr. Gustafson
230-231-232	<i>Seminar: Runic Inscriptions</i> (The same as German 218-219-220) (<i>Not offered</i>)				

SECRETARIAL TRAINING

Courses in typewriting, shorthand, and secretarial procedure are regularly offered to Science, Literature, and the Arts students. The courses are listed under the heading "Economics" in the School of Business Administration part of this bulletin.

SOCIAL SCIENCE

1f-2w-3s	Introduction to Social Science—The nature of contemporary society. An analysis of human interdependency and of economic, political, and social institutions. A survey of the problems involved in human social interrelations and the methods used by men to understand and control economic, political, and social phenomena. The entire course (12 cred.), but not any part of it, will satisfy the social science requirement for admission to the Senior College of Science, Literature, and the Arts (12 cred.; no prereq.)	II	MTWF	110P	Ar
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SOCIOLOGY AND SOCIAL WORK

Major advisers in the College of Science, Literature, and the Arts—Professors Chapin, Kirkpatrick, Nelson, and Vold; Associate Professors Fenlason, Monachesi, Shea, Sletto, and Vaile; Assistant Professors Clendening, Doyle, and Green.

Major sequences in the College of Science, Literature, and the Arts—

Sequence A. General sociology. Courses 53; two of 100, 101, 103; two of 115, 116, 119, 160; 123, 141 or 161; 120, 140, 145; 110 or 112 or 114; 102 or 105 or 132.

Sequence B. Applied sociology. Courses 50, 53; one of 51, 91, 95, 104; two of 100, 101, 102, 103; two of 115, 116, 119, 160; 120 or 123 or 141 or 161; 110 or 112 or 114; 105 or 106 or 107 or 132.

§ No knowledge of Scandinavian languages is required.

Sequence C. Rural sociology. Courses as follows: 50, 53; one of 51, 91, 95, 104; two of 100, 101, 103; two of 115, 116, 119, 160; 120 or 123 or 141 or 161; 120 or 140 or 145; 110, 112, 114.

(Prerequisites: For Sequences A, B, C, Soc. 1 and a total of 20 credits from courses in sociology, anthropology, education, history, philosophy, political science, psychology, and zoology.)

Sequence D. An interdepartmental sequence recommended as preparation for graduate study in the School of Social Work.* It may be taken as a substitute for the major and minor sequences required for the B.A. degree. Courses 50, 51, 53, 91, 95, 101, 114; three of Courses 100, 102, 103, 104, 110, 115, 119, 120, 123, 160, 161; Economics 49 or Economics 82, 83, 84 (unless the student has had Economics 6-7, Principles of Economics, or its equivalent); Psychology 144-145; Philosophy 70 or Soc. 145; History 80-81-82 or 83-84-85 or at least six credits in Senior College courses in political science; two Senior College courses in public health.

(Prerequisites: For Sequence D, Sociology 1, 45, 49; Political Science 1-2-3; Psychology 1-2. For recommended Junior College electives see the statement about preparation for graduate social work in the Bulletin of the College of Science, Literature, and the Arts.)

Students who are taking this Major Sequence D may elect, and get credit for, a maximum of 18 credits in the following courses in Art Education and Physical Education which are ordinarily not open to Science, Literature, and the Arts students. This privilege is primarily for students preparing for graduate training in group work directed to leadership in recreation.

Art Education

- 31 Orientation in Handcraft Processes
- 73 Ceramic Materials and Processes
- 75B Bookbinding Process
- 75M Metal Work
- 76 Textile Materials and Processes
- 81A-B Techniques of Puppetry

Physical Education for Men

- 56 Nature and Function of Play
- 136E Leadership in Recreation
- 141 Administration and Supervision of Public Recreation
- 142 Group Leadership in Community Recreation

Physical Education for Women

- 54 Camp Leadership
- 60 Principles of Play
- 63 Techniques of Teaching Folk Dancing
- 80 Principles of Rhythm

Modifications of these sequences will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

Major adviser in the College of Education—Professor Kirkpatrick.

Requirements for a teacher's certificate—Major recommendation: 36 credits including 1, 2, and 14.

Minor recommendation: 19 or 20 credits including 1, 2, and 14.

Note—Students majoring in sociology must complete two teaching minors in addition to the required professional courses. Teachers who already hold a teacher's certificate may be relieved of this requirement upon petition.

For a specialized curriculum in social studies and a curriculum for "Visiting Teachers" see the Bulletin of the College of Education.

* This interdepartmental sequence and a related "accelerated social work program" are more fully described in the Bulletin of the College of Science, Literature, and the Arts.

Honors course—Students interested in the work of an honors course should consult the chairman of the department.

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
1f,w	Introduction to Sociology—A study of the characteristics of human group life. An analysis of the factors associated with the development of human group life and man's social environment; the structure of the social environment and its influence upon the individual's behavior; the processes involved in social change and the social problems that accompany social change. A survey of the fundamental social institutions such as the family and the church; the development and decline of social institutions; change in the institutional functions and social disorganization (5 cred.; no prereq.)				
	Lect.	I	TThS	BuAud	Mr. Monachesi
	Rec. Sec. 1	I	WF	14P	and others
	2	IV	MW	202EdH	
	3	VI	MW	109J	
	4	VII	MW	109J	
1f,w	Introduction to Sociology (For students of the College of Agriculture, Forestry, and Home Economics only) (3 cred.; no prereq.)				
		III	TThS	204OD(UF)	Mr. Schneider
1s	Introduction to Sociology (See 1f)				
	Lect.	I	TThS	BuAud	Mr. Monachesi
	Rec. Sec. 1	I	WF	2J	and others
	2	IV	MW	109J	
	3	VI	MW	109J	
	4	VII	MW	109J	
1s	Introduction to Sociology (For students of the College of Agriculture, Forestry, and Home Economics only) (3 cred.; no prereq.)				
		I	TThS	204OD(UF)	Mr. Schneider
2f,w,s	Individual and Group Adjustment—The influence of social interaction on personality and personality adjustment with special reference to the family. The role of attitude and prejudice in relation to racial and other minority groups. Forms of social opposition including competition, class tension, and warfare. Adjustment of tensions and frustrations with relation to leadership, crowd behavior, and fascism. Social control and social change in relation to postwar objectives (5 cred.; prereq. 1)				
	Lect.	I	TThS	JAud	Mr. Kirkpatrick
	Rec. Sec. 1	I	WF	113F	
	2	IV	MW	218P	
	3	VI	TTh	218P	
	4	VII	TTh	218P	
14f,w,s	Rural Sociology—A presentation of factual data necessary to an understanding of the problems of rural social life (3 cred.; prereq. 1)				
		IV	MWF	JAud	Mr. Nelson, Mr. Schneider
14f,w	Rural Sociology (For students of the College of Agriculture, Forestry, and Home Economics) (3 cred.; prereq. 1)				
		I	TThS	102Hr(UF)	Mr. Nelson, Mr. Schneider
45f	Social Statistics (5 cred.; prereq. 1. Not open to students who have received credit in Econ. 5)				
	Lect.	IV	MWF	104J	Mr. Sletto
	Lab.	VI, VII	TTh	104J	
45w	Social Statistics (See 45f)				
	Lect.	VI	MWF	104J	Mr. Sletto
	Lab.	VI, VII	TTh	104J	
45s	Social Statistics (See 45f)				
	Lect.	VI	MWF	104J	Mr. Sletto
	Lab.	VI, VII	TTh	104J	

No.	Title	Hour	Day	Bldg.	Instructor
48f	Social Control and Criminal Behavior—A study of the basis of orderliness and law-abiding behavior and its disintegration into criminal behavior (3 cred.; prereq. 1)	III	TThS	202EdH	Mr. Vold
48s	Social Control and Criminal Behavior (See 48f)	III	TThS	209EdH	Mr. Vold
49f,w,s	Social Pathology (3 cred.; prereq. 1)	I	MWF	JAud	Mr. Sletto

Senior College Courses

Course 53 is open to third quarter sophomores who have an average grade of at least C in the prerequisite courses. Other Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

50f-51w	The Areas of Social Work (10 cred.; jr., sr.; prereq. 49)	II	MTWTh	2P	Social Work Staff
			and 2 hrs. of observation to be ar		
50w-51s	The Areas of Social Work (See 50f-51w)	III	MTWTh	2P	Social Work Staff
			and 2 hrs. of observation to be ar		

COURSES IN SOCIOLOGY

53f,w,s	Elements of Criminology—A general survey of the field of criminology (3 cred.; jr., sr.; prereq. same as for 49)	III	MWF	109J	Mr. Vold
57	<i>Leisure in the Modern World</i> (3 cred.; open only to students in the College of Education; prereq. Soc. 1 or equiv.) (<i>Not offered</i>)				
91f	Case Method Applied to the Study of Human Problems (3 cred.; jr., sr.; prereq. 50 or 51 or consent of major adviser)	II	TThS	2J	Mrs. Fenlason
91s	Case Method Applied to the Study of Human Problems (See 91f)	III	TThS	2J	Mrs. Fenlason
95f	Introduction to Public Welfare—The public welfare function of American government with especial emphasis on the public assistance programs (3 cred.; jr., sr.; prereq. 50 or 51 or consent of major adviser)	I	TThS	104J	Miss Vaile
97f-98w-99s	Tutorial and Honors Work in Selected Fields (9 cred.; jr., sr.; prereq. consent of major adviser in sociology)	Ar	Ar	Ar	Ar
100f	Social Psychology (3 cred.; jr., sr., grad.; prereq. Sociology 1 and 15 cred. in social science, child welfare, education, philosophy, or psychology or consent of instructor)	IV	TS	104J	Mr. Kirkpatrick
		V	Th		
101s	Social Organization (3 cred.; jr., sr., grad.; prereq. same as for 100)	II	TThS	109J	Mr. Chapin
102s	Contemporary Penology (3 cred.; jr., sr., grad.; prereq. same as for 100)	II	MWF	2P	Mr. Vold
103w	Sociology of Conflict (3 cred.; jr., sr., grad.; prereq. same as for 101)	II	TThS	104J	Mr. Vold
104f	City Planning—General survey of the economic, governmental, social, and technical phases of city planning and group housing (The same as Architecture 104, Economics 111, and Political Science 124) (3 cred.; jr., sr., grad.; no prereq.)	III	MWF	320E	Mr. Jones, Mr. Anderson, Mr. Filippetti, Mr. Vaile, Mr. Sletto
105f	Criminological Theories—Historical and contemporary (3 cred.; jr., sr., grad.; prereq. same as for 100, but including 53 or consent of instructor)	II	TThS	109J	Mr. Vold

No.	Title	Hour	Day	Bldg.	Instructor
106	<i>Police Problems and Practices in the United States</i> —A study of personnel, organization, and public relations of police forces with special attention to successful techniques of integrating police work with other community agencies (3 cred.; jr., sr., grad.; prereq. same as for 100 or consent of instructor) (<i>Not offered</i>)				
107	<i>Adult Parole and Probation</i> —A critical examination of problems and practices in the supervision of adult criminals (3 cred.; jr., sr., grad.; prereq. same as for 100 but including 53 or consent of instructor) (<i>Not offered</i>)				
110f	Rural Community Organization (3 cred.; jr., sr., grad.; prereq. same as for 100)	I	MWF	2J	Mr. Nelson
112f	Problems in Rural Social Research (2 cred.; sr., grad.; prereq. same as for 100)	VIII-IX	M	2J	Mr. Nelson
114w	Rural Social Institutions (3 cred.; jr., sr., grad.; prereq. same as for 100)	I	TThS	109J	Mr. Nelson
115w	Religion As a Social Institution (3 cred.; jr., sr., grad.; prereq. same as for 100)	II	TThS	218P	Mr. Kirkpatrick
116	<i>The Newspaper As a Social Institution</i> (3 cred.; jr., sr., grad.; prereq. same as for 100) (<i>Not offered</i>)				
119f	The Family—With special reference to contemporary marriage problems (3 cred.; jr., sr., grad.; prereq. same as for 100)	III	TThS	109J	Mr. Kirkpatrick
119s	The Family—With special reference to contemporary marriage problems (See 119f)	IV	TS	109J	Mr. Kirkpatrick
120f	Social Life and Cultural Change (3 cred.; jr., sr., grad.; prereq. same as for 100)	V	Th		
122f	Statistical Methods (3 cred.; grad.*; prereq. same as for 100)	II	MWF	109J	Mr. Schneider
123s	Methods of Social Research (3 cred.; jr., sr., grad.; prereq. Soc. 45 or equiv.)	II	TThS	104J	Mr. Chapin
132f	Juvenile Courts and Probation (3 cred.; jr., sr., grad.; prereq. 53)	II	TThS	218P	Mr. Sletto
140w	Theories of Social Order (3 cred.; jr., sr., grad.; prereq. same as for 100)	III	TThS	104J	Mr. Monachesi
141w	Problems in Social Measurement (3 cred.; jr., sr., grad.; prereq. 45 or 122 or equiv.)	I	MWF	109J	Mr. Schneider
145s	Theories of Social Reconstruction (3 cred.; jr., sr., grad.; prereq. same as for 100)	III	MWF	104J	Mr. Sletto
146¶	<i>Community Organization and the Social Setting of Recreation</i> (3 cred.; jr., sr., grad.; prereq. for Arts College students, 3 courses in soc.; for students in Education, 3 courses in soc. sci. including Soc. 57) (<i>Not offered</i>)	III	TThS	200Pt	Mr. Schneider
147¶	<i>Group Leadership and Organization</i> (3 cred.; jr., sr., grad.; prereq. Soc. 146 or equiv.) (<i>Not offered</i>)				
148¶	<i>Supervisory Problems in Recreation</i> (Open only to majors or minors in recreation curriculum) (3 cred.; jr., sr., grad.; prereq. Soc. 147 or equiv.) (<i>Not offered</i>)				
160	<i>Population Problems</i> (3 cred.; jr., sr., grad.; prereq. same as for 100) (<i>Not offered</i>)				
161w	Social Aspects of Housing and Standards of Living (3 cred.; sr., grad.; prereq. same as for 100)	II	TThS	109J	Mr. Chapin
162f-163w-164s	Field Work and Laboratory Training in Social Research (6 cred.; jr., sr., grad.; prereq. 45 or 122 which may be taken simultaneously)	Ar	Ar	Ar	Mr. Sletto

COURSES IN SOCIAL WORK

109f,w‡	The Field of Social Work (3 cred.; grad.*; prereq. same as for 100, or consent of adviser and instructor)	I	TThS	2J	Mrs. Doyle
122f	Statistical Methods (Listed under the heading "Courses in Sociology," above)				Mr. Chapin

* For graduate students only, except by petition.

‡ This course is for mature students who have not had Courses 49 and 50-51.

¶ Open only to majors in sociology and social work or recreation.

No.	Title	Hour	Day	Bldg.	Instructor
124s	Community Organization (3 cred.; grad.*; prereq. 109 or equiv.)	I	TThS	2J	Ar
125f	Principles of Group Work (3 cred.; grad.*; prereq. 109, which may be taken simultaneously, or equiv.)	IV VI	TS Th	2J 2J	Ar
125s	Principles of Group Work (See 125f)	Ar	Ar	Ar	Ar
126s	Problems of Supervision in Group Work (3 cred.; grad.*; prereq. 125, 156)	II	TThS	112Bu	Ar
127s	Legal Aspects of Social Work (3 cred.; grad.*; prereq. 109, which may be taken simultaneously)	I	MWF	109J	Mr. Bachelder
128s	Principles of Administration, Publicity, and Finance Applied to Social Work (2 cred.; grad.*; prereq. same as for 100, but including 109 or equiv.)	VII, VIII	T	109J	
129f-130w†	Principles of Social Case Work (6 cred.; grad.*; prereq. for 129 is 109, which may be taken simultaneously, prereq. for 130 is 129, 153)	III	TThS	2J	Mrs. Fenlason
129w-130s†	Principles of Social Case Work (See 129f-130w)	II	TThS	2J	Mrs. Fenlason
131s	Rural Social Work (3 cred.; grad.*; prereq. 129, 153, 114 or equiv.)	IV VIII	TS Th	2J 2J	Miss Vaile
132f	Juvenile Courts and Probation (This course is listed under heading "Courses in Sociology," on page 105)				Mr. Monachesi
133s	Social Case Work in Health Problems (3 cred.; grad.*; prereq. 129, 136)	III	TThS	109J	Mrs. Clendening
134	<i>Legal Protection of the Child</i> (3 cred.; grad.*; prereq. same as for 100 but including 60) (Not offered)				
135	<i>Survey of Social Work for Children</i> (2 cred.; grad.*; prereq. 109, which may be taken simultaneously, or equiv.) (Not offered)				
136Aw-Bs	Medical Information for Social Workers (4 cred.; grad.*; prereq. P.H. 50 or 51 or equiv.)	IX	TTh	Ar	Mrs. Clendening and Med. Staff U. H.
137s	The History and Theory of Social Work (3 cred.; grad.*; prereq. 109, which may be taken simultaneously)	II	TThS	104J	Mrs. Doyle
138f	Case Work with Children (3 cred.; grad.*; prereq. 130, 154)	I	TThS	109J	Miss Green
138s	Case Work with Children (See Soc. 138f)	III	TThS	104J	Miss Green
139w	Personality Development As It Affects Case Work Practice—A consideration of factors involved in personality development and how these factors aid case work practice (3 cred.; grad.*; prereq. 170 or equiv. and consent of instructor)	VII, VIII VI	T Th	2J	Miss Green
151f-152w	Public Welfare (6 cred.; jr., sr., grad.; prereq. 109 or equiv. Course 152 is open to graduate students only)	IV VII	TS Th	109J	Miss Vaile
151w-152s	Public Welfare (See 151f-152w)	I	TThS	104J	Miss Vaile
153f,w,s†- 154f,w,s†- 155f,w,s†	Field Training in Case Work (5 cred.; grad.*; prereq. 129, which may be taken simultaneously, or equiv.)	Ar	Ar	Ar	Mrs. Doyle

* For graduate students only, except by petition.

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$3.50 is charged for this course.

No.	Title	Hour	Day	Bldg.	Instructor
156f,w,s† 157f,w,s† 158f,w,s†	Field Training in Group Work (2 to 6 cred. per qtr. to be determined by the adviser in social work; grad.*; prereq. 125, which may be taken simultaneously)				
		Ar	Ar	Ar	Ar
161w	Social Aspects of Housing and Standards of Living (This course is listed under the heading "Courses in Sociology," on page 105)				Mr. Chapin
170f	Introductory Psychiatry (3 cred.; grad.*; no prereq.)	II	TThS	Ar	Dr. Hinckley
171w	Descriptive Neuropsychiatry (The same as Medicine 171) (3 cred.; grad.*; prereq. 170 or equiv.)				
		4:00 to 5:00	MWF	Ar	Dr. Baker
172s	Advanced Considerations in Psychiatry (The same as Medicine 172) (1 cred.; grad.*; prereq. 171 or equiv.)				
		IV	T	Ar	Dr. Clarke
173Af	Behavior Problems in Younger Children (The same as Child Welfare 140) (2 cred.; sr., grad.; prereq. 12 cred. in psy., ed. psy., or soc.)	I, II	S	202Pt	Miss Goodenough
173Bw	Behavior Problems in Older Children (The same as Child Welfare 141) (2 cred.; sr., grad.; prereq. 12 cred. in psy., ed. psy., or soc.)	I, II	S	202Pt	Miss Goodenough
174s	Seminar in Psychiatric Social Work (2 cred.; grad.*; prereq. 130, 139 or equiv., 170)	VIII, IX	Th	Ar	Ar
175f	Advanced Medical Information for Social Workers (2 cred.; grad.*; prereq. 136A-B)	Ar	Ar	Ar	Mrs. Clendening and Med. Staff U. H.
197f-198w-199s	Special Topics in Social Work (Cred. ar.; grad.*)	Ar	Ar	Ar	Ar

For Graduate Students Only

COURSES IN SOCIOLOGY

200f,w,s	Seminar: Topics in Criminology—Latin-American Penology				Mr. Vold
201	Seminar: Social Psychology of Family Relationships (Not offered)				
202f	Seminar: Topics in Urban Sociology				Mr. Sletto
203-204-205	Seminar in Social Theory (Not offered)				
206-207-208	Seminar: Statistical Theory in Relation to Social Theory and Practice (Not offered)				
209-210-211	Seminar: The Theory of Social Evolution (Not offered)				
215f	Seminar in Rural Sociology: Rural Life in Latin America				Mr. Nelson
216w	Seminar in Rural Sociology: Rural Life in Selected Countries of Europe				Mr. Nelson
217s	Seminar in Rural Sociology: Current Rural Social Problems in the United States				Mr. Nelson
234f,w,s	Seminar in Juvenile Delinquency and Treatment				Mr. Monachesi
238-239†	Principles of Sociology (6 cred.) (Not offered)				

COURSES IN SOCIAL WORK

218f-w-s	Seminar in Family Case Work				Mrs. Fenlason
219f-w-s	Seminar in Case Work with Children				Miss Green
220f-w-s	Seminar in Medical Social Work				Mrs. Clendening
221f,w,s† 222f,w,s† 223f,w,s†	Graduate Field Training				Staff
224f,225w,226s	Advanced Medical Social Work				Mrs. Clendening
227f,w,s† 228f,w,s† 229f,w,s†	Advanced Field Training				Staff

* For graduate students only, except by petition.

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$3.50 per quarter is charged for this course.

No.	Title	Hour	Day	Bldg.	Instructor
230f,w,s	Seminar in Public Welfare				Miss Vaile
231f,w,s	Seminar in Group Work				Ar
232f,w,s	Seminar in Rural Social Work				Miss Vaile
233f,w,s	Seminar in Social Agencies and Social Institutions				Mrs. Doyle
234f,w,s	Seminar in Juvenile Delinquency and Treatment (This course is listed under the heading "Courses in Sociology," above)				Mr. Monachesi
235f,w,s	Seminar in Psychiatric Social Work				Miss Green
236f,w,s	Special Studies in Social Work				Staff
237f,w,s	Recent Research in Social Work				Mrs. Shea
240f,w,s	General Seminar in Social Work				Staff

SPANISH

See Romance Languages, page 98.

SPEECH

Major advisers in the College of Science, Literature, and the Arts—Professors Rarig, Lees, and Bryngelson; Assistant Professor Gilkinson.

Major sequences in the College of Science, Literature, and the Arts—

A. General: Courses 61, 67; 81-82-83; 101-102-103; 105 or 109 and 9 additional Senior College credits in one of the following: English, Philosophy, History, Political Science.

B. Theater: Courses 61; 81-82-83; 91, 92, 93; 111-112-113 and a comprehensive examination in the theater.

C. Speech Pathology: Courses 61; 67; 121-122; 162-163; 141-142-143.

D. Radio: Courses 65, 66, 67; 78-79; 81-82-83, and 6 to 9 additional credits in courses to be selected in conference with adviser.

(Prerequisites: 1-2-3 or 5-6; Psychology 1-2. For Sequence B, Speech 31, 32-33, 34 are required. For Sequence C, Psychology 4-5 and Physiology 2 are also required.)

Modifications of these sequences will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

Major advisers in the College of Education—Professors Rarig, Lees, and Bryngelson; Assistant Professor Gilkinson.

Requirements for a teacher's certificate—Major recommendation: Speech 1-2 or 5, 31, 32, 61, 67, 81-82, 101-102; 111-112; 121; total 38 or 39 credits. Psychology 4-5 is advised.

Minor recommendation: Students minoring in speech are required to take Speech 1-2 or 5 plus other speech courses totaling 27 hours. These courses are to be selected with the aid of an adviser according to the needs of the student. Differential sequences are recommended according to whether the student is primarily interested in General Speech, Theater, Interpretation, or Speech Pathology.

All students majoring or minoring in speech must present satisfactory evidence of interest and effective participation in one or more activities, such as debating, dramatics, oratory, public reading, and public speaking.

Because of the close relation between English and speech in the high school of Minnesota, students majoring in speech must have a minor in English as well as one other minor. Modification of the minor requirement may be made on recommendation of a departmental adviser with the approval of the Students' Work Committee.

Students majoring in speech should register for Ed.T. 66Am, the Teaching of Composition in Senior High School, as well as Special Methods and Directed Teaching in Speech, Ed.T. 88A-88D-88C. See the program of the College of Education.

Students interested in preparing for clinical work in speech correction in public schools should read the statement of the specialized curriculum in "Speech Pathology" in the Bulletin of the College of Education.

Speech activities—All students in the University are entitled to participate in Inter-collegiate Debating, the Freshman-Sophomore Debate, the Freshman-Sophomore Oratorical Contest, the Pillsbury Oratorical Contest, the Verse Reading Contest, and the activities of the University Theater.

Note—The University maintains a clinical service for students with speech defects. Students who desire treatment should consult the director of the Speech Clinic, 411 Folwell Hall. The clinic also accepts a limited number of full-time outpatients who pay a fee of \$85 per quarter. Part-time outpatients pay \$45 per quarter.

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
1f-2w†-3s*†	Fundamentals of Speech (9 cred.; soph., jr., sr.; prereq.* or exemption)			Eng. A-B-C or Comp. 4-5-6	
	Sec. 1	I	MWF	308F	Mr. Gilkinson
	2	II	MWF	306F	and others
	3	III	MWF	306F	
	4	VI	MWF	308F	
	5	III	TThS	306F	
	6	VII	MWF	308F	
	(Dental hygiene students only)	IV	MWF	305F	
1w-2s*†	Fundamentals of Speech (2 qtrs. of 1-2-3. See 1f-2w-3s)				
		II	MWF	303F	
3f*†	Fundamentals of Speech (3rd qtr. of 1-2-3. See 1f-2w-3s)				
		II	MWF	308F	
5f-6w*†	Fundamentals of Speech (10 cred.; soph., jr., sr.; prereq.* or exemption)			Eng. A-B-C or Comp. 4-5-6	
	Sec. 1	III	MTWThF	303F	
	2	IV	MTWFS	321F	
	3	VI	MTWThF	305F	
5w-6s*†	Fundamentals of Speech (See 5f-6w)				
	Sec. 1	IV	MTWFS	303F	
	2	VI	MTWThF	303F	
5s*†	Fundamentals of Speech (1st qtr. of 5-6. See 5f-6w)				
	Sec. 1	III	MTWThF	303F	
	2	IV	MTWFS	109F	
6f*†	Fundamentals of Speech (2nd qtr. of 5-6. See 5f-6w)				
		VI	MTWThF	303F	
31f††	Introduction to the Theater (3 cred.; soph., jr., sr.; prereq. 1-2-3 or 5-6 or concurrent registration)				
		I	MWF	19Mu	Mr. Whiting
32w-33s††	Beginning Acting, Creative and Technical Approaches (6 cred.; soph., jr., sr.; prereq. Sp. 31)				
	Sec. 1	I	MWF	19Mu	Mr. Whiting, Mr. Dusenbury
	2	II	MWF	19Mu	Ar
	3	I	MWF	207F	Ar
34s††	Stagecraft—Construction and Painting (3 cred.; soph., jr., sr.; prereq. 31)				
	Lect.	II	Th	Stage Mu	Ar
	Lab.	I-II	TS		

* Registration is limited. Written permission from the Junior College office, 106 Folwell Hall, is necessary for admission.

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$1 per quarter is charged for this course.

†† A fee of \$2 per quarter is charged for this course.

|| Majors in Speech in the College of Education are required to complete only two quarters each of Courses 31, 32-33 and 55-56-57.

Senior College Courses

Courses 51, 67, 81-82-83 are open to Junior College students who have an average grade of at least C in the prerequisite courses. Other Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

No.	Title	Hour	Day	Bldg.	Instructor
51s†	Advanced Public Speaking (3 cred.; jr., sr.; prereq. 1-2-3 or 5-6)	II	MWF	308F	Ar
55-56-57†‡	<i>Argumentation and Debating</i> (9 cred.; jr., sr.; prereq. 1-2-3 or 5-6; Phil. 2, Logic, is recommended) (<i>Not offered</i>)				
61f†	Personality Development Through Speech (3 cred.; jr., sr.; prereq. 1-2-3 or 5-6; Psy. 1-2)	VI	MWF	306F	Mr. Bryngelson
65s†	Radio Speech—Speech arts and psychology of the radio. Practice, exercises, projects, and reports on problems of appeal and audience response (3 cred.; jr., sr.; prereq. 1-2-3 or 5-6)	II	MWF	302MurH	Mr. Ziebarth
	Sec. 1	II	TThS	302MurH	Mr. Ziebarth
66f‡‡	Radio Drama—A study of the historical development of radio drama, with an analysis of the various types of radio dramas including production, direction, and acting techniques (3 cred.; jr., sr.; prereq. 1-2-3 or 5-6; 65 recommended)	III	MWF	19Mu	Mr. Dusenbury
67s†¶	Phonetics (3 cred.; jr., sr.; prereq. 1-2-3 or 5-6)	I	MWF	306F	Mr. Dusenbury
71††-72††-73††	<i>Wartime Entertainment</i> (3 cred.; jr., sr.; prereq. consent of instructor) (<i>Not offered</i>)				
78w-79s††	Advanced Acting—Characterization and Dialect (6 cred.; jr., sr.; prereq. 31, 32-33)	III	MWF	19Mu	Mr. Whiting, Mr. Dusenbury
81f-82w-83s†	Interpretative Reading (9 cred.; jr., sr.; prereq. 1-2-3 or 5-6)	IV	MWF	308F	Mr. Rarig
81w-82s†	Interpretative Reading (See 81f-82w-83s)	I	TThS	308F	Mr. Rarig
83f†	Interpretative Reading (3rd qtr. of 81-82-83. See 81f-82w-83s)	I	TThS	308F	Mr. Rarig
91w††	Stage Design (3 cred.; jr., sr.; prereq. 31)	III	Th	19Mu	Ar
	Lect.	III, IV	TS		
92s††	Stage Lighting (3 cred.; jr., sr.; prereq. 31)	III	Th	19Mu	Ar
	Lect.	III, IV	TS		
93f††	Stage Costuming (3 cred.; jr., sr.; prereq. 31)	III	Th	19Mu	Ar
	Lect.	III, IV	TS		
97f,w,s	Intercollegiate Oratory and Debate (3 cred.; jr., sr.; prereq. §)	Ar	Ar	308F	Mr. Rarig
101f-102w-103s	Argumentation and Persuasion (9 cred.; jr., sr., grad.; prereq. 1-2-3 or 5-6; Psy. 1-2; 10 cred. in soc. sci.)	III	MWF	308F	Mr. Rarig
105a*	Theory of Reading and Acting (3 cred.; jr., sr., grad.; prereq. 1-2-3 or 4-5; 81-82-83, and Psy. 1-2)	III	TThS	308F	Mr. Rarig
106	<i>Public Speaking and Discussion</i> (3 cred.; jr., sr., grad.; prereq. 1-2-3 or 5-6, and permission of instructor) (<i>Not offered</i>)				
107	<i>Platform Reading</i> (3 cred.; prereq. 81-82-83 with grade of B in 83) (<i>Not offered</i>)				
109*	<i>Classical Rhetoric</i> (3 cred.; jr., sr., grad.; prereq. 101-102, Psy. 140) (<i>Not offered</i>)				

* Courses 105 and 109 are offered in alternate years.

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$1 per quarter is charged for this course.

‡‡ A fee of \$2 per quarter is charged for this course.

§ Open to representatives of the University in the Northern Oratorical League and to members of the intercollegiate debate squad.

¶ Students intending to take Speech Pathology should take Phonetics the preceding spring.

¶¶ Majors in Speech in the College of Education are required to complete only two quarters each of Courses 31, 32-33 and 55-56-57.

No.	Title	Hour	Day	Bldg.	Instructor
111f-112w-113s†	Stage Direction (9 cred.; sr., grad.; prereq. 31, 32, 34, 91-92-93)	II	MWF	18Mu	Mr. Lees
115f-116w-117s	Playwriting and Production (117s: Writing Radio Drama) (1 to 3 cred. per qtr.; sr., grad.; prereq. 31, 32-33 and permission of instructor)	III	MWF	109Mu	Mr. Lees
121w-122s	Advanced Speech Problems (6 cred.; jr., sr., grad.; prereq. 1-2-3 or 5-6, Psy. 1-2)	II	TThS	308F	Mr. Gilkinson
131‡	<i>Community Dramatics (Children's Theater)</i> —The cultural values of community and children's theaters. Dramatic educational and critical literature of the field. Specimen projects, reports, term papers (3 cred.; sr., grad.; prereq. 91-92-93 and 111-112-113, or permission of instructor) (<i>Not offered</i>)				
141-142-143	<i>Voice Science</i> (9 cred.; jr., sr., grad.; prereq. 1-2-3 or 5-6, 67; Psy. 1-2 and 4-5) (<i>Not offered</i>)				
162w-163s†¶	Speech Pathology (6 cred.; jr., sr., grad.; prereq. 1-2-3 or 5-6; 61, 67; and permission of instructor)	VI VI, VII	T Th	406F	Mr. Bryngelson
164f-165w-166s	Clinical Methods and Practice in Speech Pathology (The same as Ed.C.I. 174-175-176) (9 cred.; sr., grad.; prereq. 1-2-3; 61, 67, 162, and Ed.Psy. 142. May be taken simultaneously with Sp. 163)	VIII and ar.	WF	406F	Mr. Bryngelson
171f-172w-173s*	History of the Theater (9 cred.; sr., grad.; prereq. 1-2-3 or 5-6; 31)	IV	MWF	18Mu	Mr. Lees
174-175-176*	<i>Theater Backgrounds</i> (9 cred.; sr., grad.; prereq. 1-2-3 or 5-6; 31. Courses in literature recommended) (<i>Not offered</i>)				
181f-182w-183s	Readings in Speech—Directed reading and preparation of reports on selected subjects (Cred. ar.; jr., sr., grad.; prereq. 1-2-3 or 5-6 and six additional credits and consent of instructor)	Ar	Ar	Ar	Mr. Rarig, Mr. Lees, Mr. Bryngelson, Mr. Gilkinson
191-192-193	<i>Technical Problems</i> —Advanced problems in the technical phases of the theater. Special problems are assigned to individual students (9 cred.; jr., sr., grad.; prereq. 111-112-113) (<i>Not offered</i>)				
<i>For Graduate Students Only</i>					
201f,w,s	General Seminar	Ar	Ar	Ar	Staff
207f-208w-209s	Seminar in Rhetoric and Persuasion	Ar	Ar	Ar	Mr. Rarig
211f-212w-213s	Seminar in Dramatic Theory	VIII-IX	M	18Mu	Mr. Lees
221f-222w-223s	Seminar in Oral Interpretation of Literature	Ar	Ar	Ar	Mr. Rarig
231f-232w-233s	Seminar in Advanced Speech Problems	Ar	Ar	Ar	Mr. Gilkinson Mr. Bryngelson
261f-262w-263s	Seminar in Speech Pathology	Ar	Ar	Ar	Mr. Rarig, Mr. Lees, Mr. Bryngelson, Mr. Gilkinson, Mr. Brown
291f-292w-293s	Research in Special Problems	Ar	Ar	Ar	Mr. Rarig, Mr. Lees, Mr. Bryngelson, Mr. Gilkinson, Mr. Brown

* Courses 171-172-173 and 174-175-176 are offered in alternate years.

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$2 per quarter is charged for this course.

¶ Students intending to take Speech Pathology should take Phonetics the preceding year.

SWEDISH

See Scandinavian, page 100.

VOCATIONAL ORIENTATION

1f,w,s Vocational Orientation—This course is an introduction to the University of Minnesota agencies which help students make educational and vocational plans. There will be discussions and lectures about the best methods of making choices. Some of the lectures will be illustrated by motion pictures. There will be opportunities for students to hear speakers from different university departments and to have individual conferences with instructors and counselors (2 cred.; no prereq.)

I MWF 218P Ar

ZOOLOGY

Major adviser in the College of Science, Literature, and the Arts—Professor Minnich.

Major sequences in the College of Science, Literature, and the Arts—

A. In Zoology, 27 credits in Senior College courses of which at least 18 must be in courses with numbers between 49 and 100.

B. In special fields as cytology, ecology, embryology, entomology, genetics, histology, parasitology, physiology, or protozoology, a major will consist of the respective one-hundred courses, 5 or more credits in a problem course in the special field, and additional credits in approved courses to make a total of 27 credits in Senior College courses.

(Prerequisites: 1-2-3 or equivalent and 21, 22, or equivalent. If possible beginning chemistry and at least one year of French or German should be completed during the Junior College work.)

Modifications of these sequences will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

Major adviser in the College of Education—Professor Wodsedalek.

Requirements for a teacher's certificate—Major recommendation: General Zoology, Zoology 52, 53, 75, 83, and Physiology 4.

Minor recommendation: A minimum of 18 credits including General Zoology, Zoology 53 and 75.

For a specialized curriculum in Natural Science see College of Education Bulletin.

Honors Course in Zoology—A student who has met all of the requirements for admission to the Senior College and who has maintained a grade of B in his work in the department may enroll for the Honors Course in Zoology. Such a student will carry at least twelve hours of problem work in some special phase of the work and will pursue under the direction of his adviser such special reading and outline courses as may be required. The completion of the Honors Course will require a reading knowledge of either French or German.

Courses in human anatomy, embryology, and hematology may be arranged for with the head of the Department of Anatomy.

Courses in physiology may be arranged for with the head of the Department of Physiology.

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
1f-2w-3s*††	General Zoology (10 cred.; no prereq.)				
	Lect. Sec. 1 (Limited to 320)	II	TTh	06Bo	Mr. Minnich
	2 (Limited to 320)	III	WF	06Bo	Mr. Wodsedalek
	3 (Limited to 320)	IV	WF	06Bo	Mr. Minnich
	Lab. Sec. 1 (Limited to 174)	I, II	MF	101Z	Ar
	2 (Limited to 174)	VI, VII	MF	101Z	Ar
	3 (Limited to 174)	VIII, IX	MF	101Z	Ar
1w-2s*††††	General Zoology (10 cred.; no prereq.)				
	Lect.	IV	MWF	313Z	Ar
	Lab. (Limited to 60)	VI, VII, VIII	TTh	107Z	
14f-15w††	General Zoology (For students of the College of Agriculture, Forestry, and Home Economics) (6 cred.; no prereq.)				
	Lect. (Limited to 174)	VIII	TTh	06Bo	Mr. Dawson
	Lab.	VI, VII	TTh	101Z	Ar
21f‡‡	Histology (5 cred.; soph., jr., sr.; prereq. 1-2-3) (Sections limited to 60 each. Written permission must be obtained from the Junior College office, 106 Folwell Hall)				
	Lect.	III	TThS	313Z	Mr. Ringoen, Miss Slider
	Lab. Sec. 1	I, II	TThS	201Z	Mr. Ringoen
22w††	Comparative Anatomy (5 cred.; soph., jr., sr.; prereq. 1-2-3) (Sections limited to 40 each. Written permission must be obtained from the Junior College office, 106 Folwell Hall)				
	Lect.	III	TThS	313Z	Mr. Eddy
	Lab. Sec. 1	VI, VII, VIII	TTh	3SZ	
46w-47st	Ornithology (6 cred.; soph., jr., sr.; prereq. 1-2-3 and permission of instructor)				
	Lect.	VI, VII, VIII	MW	307MNH	Dr. Roberts

Senior College Courses

Courses 50, 51, 52, 53, 81, 82, and 83 are open to sophomores who have a grade of at least C in Course 1-2-3. Other Senior College courses in this department are open to Junior College students only by special permission of the Students' Work Committee. See a statement on page 18.

Students planning to elect Course 81 and any course numbered above 100 should consult the chairman of the department before completing his program.

50s††††	Introduction to Comparative Physiology (5 cred.; soph., jr., sr.; prereq. 1-2-3 or 15 cred. in bot.; and 10 cred. in chem. or permission of instructor) (Section limited to 20)				
	Lect.	III	TThS	211Z	Ar
	Lab.	I, II	TThS	18Z	
51f†††	Introductory Animal Parasitology (5 cred.; jr., sr.; prereq. 1-2-3) (Sections are limited. Lab. reservations must be made in the Junior College office, 106 Folwell Hall)				
	Lect.	VI	MWF	313Z	Mr. Cuckler
	Lab. Sec. 1 (Limited to 80)	VII, VIII	MWF	208Z	
	2 (Limited to 80)	I, II	MWF	208Z	
	3 (Limited to 40)	III, IV	MWF	208Z	

* Lectures may be elected without laboratory with the consent of the chairman of the department. Laboratory must be taken with the lectures, however, if zoology is offered as the required laboratory science. Students should elect lecture sections in which they can continue throughout the three quarters.

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

- ‡ A fee of \$1 per quarter is charged for this course.
- †† A fee of \$2 is charged for this course.
- ††† A fee of \$1 is charged for this course.
- †††† A fee of \$1.50 per quarter is charged for this course.
- § Not open to regular three-year premedical and pre dental students.

No.	Title	Hour	Day	Bldg.	Instructor
52w†	Introductory Entomology (5 cred.; jr., sr.; prereq. 1-2-3) (Section limited to 26. Written permission must be obtained from the Junior College office, 106 Folwell Hall)				
	Lect.	VI	MWF	211Z	Mr. Mickel
	Lab.	VII, VIII	MWF	402Z	
53s†	Faunistic Zoology (5 cred.; jr., sr.; prereq. 1-2-3) (Limited to 40. Written permission must be obtained from the Junior College office, 106 Folwell Hall)				
	Lect.	VI	MWF	211Z	Mr. Eddy
	Lab.	VII, VIII	MWF	3SZ	
		IX	F	3SZ	
75s†	Nature Study (3 cred.; jr., sr.; prereq. 15 cred. including 1-2-3. Required of all zoology majors and minors in the College of Education in the junior year)				
	Lect. and lab.	VI, VII, VIII	TTh	204Z	Mr. Wodsedalek
81f†	Invertebrate Zoology (3 cred.; jr., sr.; prereq. 1-2-3) (Limited to 24. Written permission must be obtained from the Junior College office, 106 Folwell Hall)				
	Lect. and lab.	I, II	MWF	211Z	Mr. Dawson
82w	Organic Evolution (3 cred.; jr., sr.; prereq. Zool. 1-2-3 or Bot. 1, 7, 21)				
		II	MWF	313Z	Mr. Dawson
83f,s	Introduction to Genetics and Eugenics (3 cred.; jr., sr.; prereq. 1-2-3 or 10 cred. in bot.)				
		II	MWF	313Z	Mr. Oliver
107f†-108w†	Protozoology (6 cred.; jr., sr., grad.; prereq. 15 cred.)				
	Lect. and lab.	I, II	TThS	208Z	Mr. Osterud
109f†-110w†-111s†	General Physiology of Animal Reactions (9 cred.; jr., sr., grad.; prereq. 15 cred.)				
	Lect. and lab.	III, IV	MWF	211Z	Mr. Minnich
112f	Advanced Comparative Physiology (3 cred.; jr., sr., grad.; prereq. 15 cred. with consent of instructor)				
	Lect.	Ar	Ar	211Z	Ar
113w†	Laboratory Methods in General Physiology of Absorption and Secretion Problems (3-5 cred.; grad.; prereq. 112 and consent of instructor)				
	Lab.	Ar	Ar	3Z	Ar
117f†-118w-119s†	Animal Ecology (9 cred.; jr., sr., grad.; prereq. 15 cred.)				
	Lect.	VI	TTh	211Z(f,s)	Mr. Eddy
	Lab.	VII, VIII	TTh	3SZ(f,s)	Mr. Hodson
					301Ad(UF)(w)**
120s†	General Ecology of Insects (3 cred.; jr., sr.; prereq. 15 cred. in zool. or ent.)				
	Lect.	VI, VII, VIII	TTh	15Ad(UF)	Mr. Hodson
121f†	Ichthyology (3 cred.; jr., sr., grad.; prereq. 15 cred.)				
	Lect.	VIII, IX	F	211Z	Mr. Eddy
	Lab.	Ar	Ar	Ar	
125f†-126w†-127s†	Advanced Entomology (9 cred.; jr., sr., grad.; prereq. 15 cred.)				
	Lect.	I	TTh	211Z	Mr. Mickel
	Lab.	I, II, III	S	402Z	
132	General Physiology of Development (3 cred.; jr., sr., grad.; prereq. 50 and 180 or consent of instructor) (Not offered)				
133s	Genetics of Development (3 cred.; jr., sr., grad.; prereq. proper preparation in advanced genetics or consent of instructor)				
		VI	MWF	209Z	Mr. Oliver
144†-145†-146†	Animal Parasites and Parasitism (6 or 9 cred.; jr., sr., grad.; prereq. 15 cred.) (Not offered)				
149w†-150s†	Histology and Organology (6 cred.; jr., sr., grad.; prereq. 15 cred. in zool.)				
	Lect. and lab.	VI, VII, VIII	TTh	209Z,	
				201Z	Mr. Ringoen
155	Physiology in Relation to Physics (3 cred.; jr., sr., grad.; prereq. 15 cred. in biol. sci. and consent of instructor. Physics recommended) (Not offered)				
160f†-161w†	Cytology (6 cred.; jr., sr., grad.; prereq. 15 cred. with consent of instructor)				
	Lect. and lab.	VI, VII, VIII	TTh	204Z	Mr. Wodsedalek

† A fee of \$1 is charged for this course.

‡ Either 119s or 120s or both may be taken to complete Course 117f-118w.

** Note that in the winter quarter this course is offered at the University Farm.

No.	Title	Hour	Day	Bldg.	Instructor
170f‡-171w‡	Advanced Genetics (6 cred.; jr., sr., grad.; prereq. consent of instructor)			15 cred. including Course 83,	or
	Lect. and lab.	VI, VII, VIII	MW	209Z	Mr. Oliver
180f‡	Comparative Embryology (3 cred.; jr., sr., grad.; prereq. or equiv.)			15 cred. including Course 21	
	Lect. and lab.	III, IV	MWF	313Z	Mr. Ringoen
181w	Endocrines and Reproduction (3 cred.; jr., sr., grad.; prereq. 21 or equiv.)			15 cred. including Course	
	Lect.	III	MWF	313Z	Mr. Ringoen
182s	Experimental Embryology (3 cred.; jr., sr., grad.; prereq. or equiv.)			15 cred. including Course 21	
	Lect.	III	MWF	313Z	Mr. Ringoen
197f-198w-199s	Problems (5 or more cred.; jr., sr., grad.; prereq. 1-2-3, special requirements)	Ar	Ar	Ar	Ar

ENTOMOLOGY AND ECONOMIC ZOOLOGY

Students in this college may elect courses in Entomology and Economic Zoology by arrangement with the department. But before registering for any courses they should get the approval of Assistant Dean Shumway, 219 Administration Building. See the program of the College of Agriculture, Forestry, and Home Economics, in another part of this bulletin.

‡ A fee of \$1 is charged for this course.

COLLEGE OF EDUCATION

Junior College courses, primarily for freshmen and sophomores, are numbered from 1 to 49; Senior College courses, primarily for juniors and seniors are numbered from 50 to 99; courses numbered from 100 to 199 are primarily for seniors and graduates; courses numbered 200 and above are for graduate students only.

Since beginning teachers are usually expected to teach several subjects in addition to their major, it is desirable that the student select the best possible combinations of subjects. It is also desirable to secure training in one or more extracurricular activities. English teachers are urged to secure credits in library work. Social studies teachers will find a minor in science, mathematics, or a foreign language a valuable addition to their training. Certain selected courses in physical education are recommended for women in some cases. Students may consult Mr. Anton Thompson in the Bureau of Recommendations about opportunities in the various fields of education for men and women with a Bachelor's degree. They should consult their major advisers, or Miss Marcia Edwards, assistant dean, or Miss Jean H. Alexander, chairman of the Students' Work Committee, about planning their programs to the best advantage. All curricula leading to a B.S. degree and a teaching certificate in Minnesota are outlined in the College of Education Bulletin.

Because of the serious shortage of teachers in wartime, plans for acceleration of programs have been made in many fields. Students should consult their major advisers early in their sophomore year as to ways in which they may complete their work in the shortest possible time.

Since the regulations and requirements in subject-matter fields and in education necessary for certification in different states are constantly changing, students who plan to teach in states other than Minnesota should secure a statement of requirements for certification and consult their major advisers in the College of Education in order that they may complete the requirements for the specific state in which they have to teach.

Classes whose meeting place is not scheduled in this bulletin will be assigned rooms at the opening of each quarter. Consult the Official Daily Bulletin or the bulletin board at 210 Burton Hall.

GENERAL COURSES

Note—The following courses should be taken in the order of Ed. 51C-A-B. Ed. 51C is The High School, Ed. 51A is Educational Psychology, and Ed. 51B is Technique of High School Instruction.

No.	Title	Hour	Day	Bldg.	Instructor
Ed. 51Cf-51Aw-51Bs††	Introduction to Secondary School Teaching	(9)	cred.; jr.; prereq.	6 cred. in psy.	
	Sec. 1	I	MWF	210Bu	Mr. Bossing (f,s) Ar(w)
	2	III	MWF	210Bu	Mr. Boardman (f) Ar(w,s)
	3	VII	MWF	210Bu	Ar

† The entire course including the final examination covering all units must be completed satisfactorily before credit is given for any quarter. Graduates of teachers colleges should consult their advisers before registering for any part of the course.

‡ A fee of \$1 per credit is charged for this course.

No.	Title	Hour	Day	Bldg.	Instructor
Ed.51Af††	Introduction to Secondary School Teaching (See 51C-A-B)	I	MWF	100Pt	Mr. Miller
Ed.51As††	Introduction to Secondary School Teaching (See 51C-A-B)	I	MWF	100Pt	Mr. Miller
	Sec. 1	I	MWF	100Pt	Mr. Van Wageningen
	2	III	TThS	210Bu	
Ed.51Bf††	Introduction to Secondary School Teaching (See 51C-A-B)	II	TThS	210Bu	Ar
Ed.51Bw††	Introduction to Secondary School Teaching (See 51C-A-B)	II	TThS	210Bu	Ar
Ed.51Cw††	Introduction to Secondary School Teaching (See 51C-A-B)	III	MWF	100Pt	Mr. Boardman
Ed.51Cs††	Introduction to Secondary School Teaching (See 51C-A-B)	II	MWF	210Bu	Ar
Ed.61Af-61Bw††	Introduction to Elementary School Teaching (6 cred.; jr.; prereq. 6 cred. in psy. and a C average) (This course is to be followed by 61C in either the junior or the senior year)	II	MWF	100Pt	Mr. Van Wageningen(f) Mr. Brueckner(w)
Ed.61Cs††	Introduction to Elementary School Teaching (3 cred.; jr., sr.; prereq. 61A-B) (This course may follow 61A-B in either the junior or senior year)	VII	MWF	100Pt	Ar
Ed.81f,s	Introduction to Education for Public Health Nurses (3 cred.) (Not open to candidates for a degree in the College of Education)	III	MWF	Ar	Miss Grout
Ed.150f,w	Education for Postwar Reconstruction. A survey and critical interpretation of the role of the schools in achieving a democratic society in America and in the world; a consideration of problems and opportunities confronting education in the postwar period (2 cred.; sr., grad.; no prereq.)	IX-X(f)	M	301Psy	Mr. Brameld
		VI(w)	TTh	301Psy	
Ed.Wf,w,s	Professional Preparation for Teaching—This classification is designed for students already holding a baccalaureate degree who desire to complete their preparation for teaching and qualify for the state teacher's certificate. Such students should consult the adviser as to their eligibility and outline for approval a program covering at least three quarters of study. Courses must be selected so as to meet all requirements for major, minor, and professional training. The entire program must be approved by the adviser and completed successfully before credit is allowed for any of the courses taken. (Minimum of 45 cred.; prereq. a Bachelor's degree, a minimum of 135 cred., a 1.75 average in all previous work, and the consent of the course adviser)	Ar	Ar	Ar	Mr. Anderson

AGRICULTURAL EDUCATION

Major adviser—Professor Field.

Agr.Ed.1w,s	Introduction to Agricultural Education (1 cred.; fr.; no prereq.)				
	Winter	VI	M	301Hr	Mr. Ekstrom
	Spring	Ar	Ar	301Hr	Mr. Ekstrom
Agr.Ed.54f,w	Rural Education and Community Leadership (2 cred.; jr., sr.; prereq. Ed. 51A)	IV and	T	301Hr	Mr. Field
	1 hr. ar.				

† The entire course including the final examination covering all units must be completed satisfactorily before credit is given for any quarter. Graduates of teachers colleges should consult their advisers before registering for any part of the course. Students who have completed 51A may register for either 51C or 51B.

‡ A fee of \$1 per credit is charged for this course.

COLLEGE OF EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
Agr.Ed.56w	Rural Youth Leadership (3 cred.; jr., sr. or permission of instructor; no prereq.)	II	MWF	301Hr	Mr. Harden and others
Agr.Ed.81f,s	Teaching Agriculture (3 cred.; jr.; prereq. Ed. 51A)	IV	MWF	301Hr	Mr. Field
Agr.Ed.82f,w†	Methods in Teaching Agriculture (3 cred.; sr.; prereq. 81)	III	MWF	301Hr	Mr. Field
Agr.Ed.83w†	Methods in Teaching Agriculture (Continuation of 82) (2 cred.; sr.; prereq. 82)	III	TTh	301Hr	Mr. Field
Agr.Ed.90f,w,s†	Observation and Participation (2 cred.; jr., sr.; prereq. 81)	Ar	Ar	Ar	Mr. Field
Agr.Ed.91f,w,s†	Supervised Teaching Experience (3 cred.; sr.; prereq. 82 and a C+ average in the major)	Ar	Ar	Ar	Mr. Field
Agr.Ed.101f	Part-time School Instruction (2 cred.; sr.; prereq. 81)	III	TTh	301Hr	Mr. Ekstrom
Agr.Ed.102w	Evening School Instruction (3 cred.; sr.; prereq. 81)	IV	MWF	301Hr	Mr. Ekstrom
Agr.Ed.103s	Facilities and Materials (3 cred.; sr.; prereq. 82)	III	MWF	301Hr	Mr. Ekstrom
Agr.Ed.104s	Planning Programs (2 cred.; sr.; prereq. 82)	III	TTh	301Hr	Mr. Field
Agr.Ed.121	Enterprise Analysis (2 cred.; prereq. Ed. 51A) (<i>Not offered</i>)				
Agr.Ed.154f,w	Rural Education and Community Leadership (2 cred.; prereq. 10 cred. in ed.)	Ar	Ar	Ar	Mr. Field
Agr.Ed.191f,w,s	Seminar in Agricultural Education (No cred.)	Ar	Ar	Ar	Mr. Field
Agr.Ed.199Ef,w,s	Internship (Cred. ar.)	Ar	Ar	Ar	Mr. Field, Mr. Ekstrom
Agr.Ed.221f,w,s	Field Problems (3 cred. per qtr.)	Ar	Ar	Ar	Mr. Field, Mr. Ekstrom
Agr.Ed.232f,w,s	Research in Agricultural Education (2 to 9 cred.; grad.; prereq. 15 cred. in ed.)	Ar	Ar	Ar	Mr. Field, Mr. Ekstrom
Agr.Ed.286	Current Problems in Agricultural Education (2 to 3 cred.; prereq. consent of instructor) (<i>Offered in Summer Session. Not offered in 1944-45</i>)				

ART EDUCATION

Major advisers—Professor Ruth Raymond; Assistant Professor Marie Lien.

GROUP A—DESIGN

Junior College Courses

ArtEd.1f-2w-3s	Fundamental Experiences in Design (9 cred.; prereq. high school art, G.C. 22A-B-C, or permission)				
	Sec. 1 (Primarily for art education majors)				
		I-II	MWF	207BJ	Miss Lien
	2 (For commercial art specialization)				
		I-II	MWF	301WcH	Miss Stoick
	3 (For recreational leaders and for rehabilitation)				
	Lect. and dem.	Ar	Ar	203J	Ar
	Lab. ar. in	I-IV	MWF	203J	Miss Berglund
		VI-VIII	MW	11J	
		I-IV	S	11J	
ArtEd.14-15-16	Art Appreciation (See Group D)				

† A fee of \$1 per credit is charged for this course.

No.	Title	Hour	Day	Bldg.	Instructor
ArtEd.17f-18w-19s	Art for Elementary Teachers (9 cred.; for those preparing to teach in pre-school and elementary grades; no prereq.)				
	Lect.	IV	T	200J	Mr. Gayne
	Sec. 1	I-II	TTh	203J	Mr. Gayne
	2	VI-VII	MW	203J	Mr. Gayne
ArtEd.20f-21w-22s	Fundamental Experiences in Design with emphasis upon color and its use in handcrafts. (May be taken with 31, 32. See Group B.) Problems designed and executed in paper, clay, leather, wood, metal, plastics, yarns, and other materials (3 cred. each qtr. 6 cred. with 31 or 32; prereq. ArtEd.1-2-3 or permission of instructor)				
	Lect. and dem.	II	MWF	203J	Miss Berglund
	Lab. ar. in	I-IV	MWF	203J	
		VI-VIII	MF	11J	
		I-IV	S	11J	
ArtEd.54f-55w-56s	Fundamental Experiences in Art (9 cred.; prereq. 1-2-3 Sec. 2 or equiv. and 6 cred. of F.A.1-2-3 or ArtEd.14-15-16)				
		Ar	Ar	Ar	Ar

Senior College and Graduate Courses

ArtEd.150f-151w	Understanding Contemporary Design (6 cred.; jr., sr., grad., by permission) 4:30 to 6:20		T	207bJ	Miss Lien
ArtEd.153-154-155 154w	Art and Society Development of Personality and Its Expression in Costume (3 cred.; jr., sr., grad., by permission)				
		IV	MF	203J	Miss Raymond
153	<i>The Modern Scandinavian Home as an Expression of Northern Art</i> (3 cred.; jr., sr., grad.) (Not offered) (See ArtEd. 156)				
ArtEd.156s	Intercultural Education through Art. (See Group E)				

GROUP B—HANDCRAFTS

At the Junior College level orientation with regard to a variety of crafts is offered in connection with ArtEd.20-21-22. At the senior college level each art major should choose one or two materials with which he should acquire expert skill and with whose possibilities in terms of both handcraft and contemporary industry he should be familiar. The courses include lecture and demonstration, and supervised laboratory and workshop privileges. Three hours of practice are considered equivalent to one lecture for credit. Laboratory hours may be arranged to fit schedules. Consult instructor.

Junior College Courses

ArtEd.31f,w,32w,s	Orientation in Handcraft Processes such as paper craft, clay modeling, leather work, wood work, metal craft, bookbinding, braiding, knotting, knitting, needle work, simple weaving, block printing and other textile design. (May be taken with ArtEd. 20-21-22. See Group A.) (3 cred. each qtr., 6 cred. with ArtEd. 20-21-22; no prereq.)				
	Lect. and dem.	VII	F	11J	
		II	S	11J	
	Lab.	I-IV	MWF	11J	
		VI-VIII	MWF	11J	
		I-IV	S	11J	

Senior College Courses

ArtEd.73f,w‡	Ceramic Materials and Processes				
	Lect. and dem.				
	Sec. 1	VII	M	10J	
	2	VI	T	10J	
	Lab. ar. in	V-VIII	MTThF	10J	

‡ A fee of \$1.50 per quarter is charged for this course.

COLLEGE OF EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
ArtEd.74,75w‡	Ceramic Processes				
	Lect. and dem.				
	Sec. 1	VII	F	10J	
	2	VI	Th	10J	
	Lab. ar. in	V-VIII	MTThF	10J	
ArtEd.73f,w‡	Ceramic Materials and Processes (3 cred. each qtr.; prereq. ArtEd. 1-2-3 or 20-21-22 or permission of instructor)				
	Lect. and dem.				
	Sec. 1	VI	W	10J	Ar
	2	VII	Th	10J	Ar
	Lab. ar. in	V-VIII	TTh		
ArtEd.74,75w‡	Ceramic Processes				
	Lect. and dem.				
	Sec. 1	VII	M	10J	Ar
	2	VI	T	10J	Ar
	Lab. ar. in	VI-VIII	W		
		I-IV	S		
ArtEd.75Bs‡	Bookbinding Process (Schedule same as for ArtEd.73)			10J	Ar
ArtEd.75Ms‡	Metal Work (Schedule same as for ArtEd.74,75)			10J	Ar
ArtEd.76f‡	Textile Materials and Processes				
	Lect. and dem.	VI	MW	11J	Miss Berglund
	Lab.	VII	MW	11J	Miss Berglund
		and			
		VI-VII	F	11J	Miss Berglund
ArtEd.77w‡	Textile Processes, Advanced				
	Lect.	VI	MW	11J	Miss Berglund
	Lab.	VII	MW	11J	Miss Berglund
		and			
		VI-VII	F	11J	Miss Berglund
ArtEd.78s‡	Textile Processes				
	Sec. 1 Printing processes				
		VI-VII-VIII	MW	11J	Miss Berglund
	2 Weaving processes ar. if demanded				
ArtEd.81Aw-Bs	Techniques of Puppetry (4 cred.; prereq. permission)	Ar	Ar	Ar	Ar

GROUP C—REPRESENTATION—STUDIO PRACTICE

Sufficient studio practice to bring proficiency in art production may be acquired by progression through various sequences including ArtEd.295, Special Problems, for the degrees of M.Ed., or M.A. under Plan B. For the B.S. degree 15 credits is a minimum.

Students should seek advice in registering.

Select one hour designated for lecture, demonstration, and class criticism and at least three other hours for studio practice each week.

Under advice, the student registers for the following course numbers in their sequence at the level of his attainment; and selects the section from those listed below for the appropriateness of its content to his professional emphasis. Each course number carries 2 credits.

Junior College Courses

ArtEd.4f,w,s,6f,w,s,
8f,w,s

Drawing, Painting, Printmaking (2 cred. each; choose section)
See sections under ArtEd. 24, 26, 28

‡ A fee of \$1.50 per quarter is charged for this course.

No.	Title	Hour	Day	Bldg.	Instructor
ArtEd.24f,w,s,26f,w,s, 28f,w,s	Drawing, Painting, Printmaking (2 cred. each; choose section)				
	Sec. 1 Figure and life drawing	IV	M and 3 hrs. ar	207aJ	Miss Lutz
	2 Quick sketch	VI	T and 3 hrs. ar	301WeH	Miss Stoick
	3 Fashion figure drawing	VI	M	301WeH	Miss Fisher
	Lect. and dem.	VI			
		or			
		VII	W		
	Lab. ar. in	VII, VIII	M		Miss Stoick
		and			
		VIII, IX	W		
	4 Figure, still-life, landscape, etc. in water-color, gouache	II	M and 3 hrs. ar	207aJ	Miss Lutz
	5 Print processes, woodcut, line-cut, silk-screen, etc.	V-VIII	F	207aJ	Miss Lutz
				301WeH	Miss Stoick

Senior College Courses

ArtEd.61f,w,s,62f,w,s, 63f,w,s	Drawing, Painting, Printmaking (2 cred. each; choose section)				
	See sections under ArtEd. 124, 125, 126				
ArtEd.66f,w,s,67f,w,s, 68f,w,s	Drawing, Painting, Printmaking (2 cred. each; choose section)				
ArtEd.124f,w,s, 125f,w,s,126f,w,s	Drawing, Painting, Printmaking (2 cred. each; choose section)				
	Sec. 1 Figure and life drawing	IV	M and 3 hrs. ar	207aJ	Miss Lutz
		VI	T and 3 hrs. ar	207aJ	Miss Lutz
	2 Commercial illustration and cartooning	VI	T and 3 hrs. ar	301WeH	Miss Stoick
	3 Fashion figure drawing	VII	W	301WeH	Miss Stoick
	Lect. and dem.	VII			
	Lab. ar. in	VIII, IX	W	301WeH	Miss Fisher
		and			
		VII, VIII	M		
	4 Figure, still-life, landscape, etc. in water-color, gouache	II	T and 3 hrs. ar	207aJ	Miss Lutz
	5 Print processes, woodcut, line-cut, silk-screen, etc.	V-VIII	F	207aJ	Miss Lutz, Miss Stoick
	6 Composition techniques, egg tempera, fresco	III-IV	F	207aJ	Miss Stoick
	7 Portrait, oil painting, water color	I-IV	S	207aJ	Miss Lutz
	8 Composition, illustration, oil paint	I-IV	S	207aJ	Miss Lutz

GROUP D—APPRECIATION

See Fine Arts, General College 22A-B-C and the lectures and projects for reading and research in ArtEd. 153-154-155 under Group A and ArtEd. 156 and 189 under Group E.

ArtEd.14f-15w-16s	Introduction to Art Education (9 cred.; prereq. ArtEd. 1-2-3 or equiv.) (See F.A. 1-2-3)	Ar	Ar	Ar	Ar
ArtEd.17f-18w-19s	See Group A				
ArtEd.57w-58s	Art and Leisure: Participation under guidance in the cultural advantages of the Twin Cities	Ar	Ar	Ar	Ar

COLLEGE OF EDUCATION

GROUP E—PROFESSIONAL COURSES

No.	Title	Hour	Day	Bldg.	Instructor
ArtEd.84s†	Methods of Teaching Art in the Elementary Grades—Instruction for Elementary Teachers (3 cred.; prereq. Ed. 61A-B-C or equiv.)	VII TTh and 1 hr. ar		203aJ	Mr. Gayne
ArtEd.86f†,87w†,88s†	Special Methods and Directed Teaching in Art (12 cred.; prereq. Ed. 51A-B-C or equiv.)	IV	T and ar	203aJ	Miss Raymond, Miss Fisher
	Methods	IV	T and ar	203aJ	Miss Raymond, Miss Fisher
	Observation and directed teaching ar. in public schools and School	6-8 hrs. a week		Ar	University High Miss Raymond, Mr. Laging
ArtEd.156s	Intercultural Education through Art (3 cred.; sr., grad.)	IX-X	T	207aJ	Miss Lien
ArtEd.183s	Philosophy of Art Education (3 cred. ar.; sr., grad.)	IX	MWF	203aJ	Miss Raymond
ArtEd.185w†	Types of Art Instruction (3 cred. ar.; sr., grad.) (Secondary School Methods)	4:30 to 6:00	Th	203aJ	Miss Lien
ArtEd.189f	Application of Esthetic Theory in Public Education (3 cred.; sr., grad.)	IX	MF and ar	203aJ	Miss Raymond
ArtEd.284f,w,s	Reading and Research in Art Education (Cred. ar.; sr., grad.)	Ar	Ar	Ar	Miss Lien
ArtEd.295f,w,s*	Special Problems in Art Education (including technical art projects and involving advanced studio practice)	Ar	Ar	Ar	Miss Raymond and appropriate staff members

CURRICULUM AND INSTRUCTION

Major advisers—Professors Boardman, Bossing, Brueckner, Cook, Johnson, Dora V. Smith, and Wesley.

All courses under *Curriculum and Instruction* except seminar courses, carry a fee of \$1 per credit.

GENERAL COURSES

Ed.C.I.70‡	<i>Methods and Materials in Safety Education</i> (3 cred.) (Not offered)				
Ed.C.I.104s†	Adult Education (2 cred.; jr., sr., grad.)	4:00-6:00	T	301Lib	Mr. Dickerman
Ed.C.I.105s†	Visual Aids in Teaching (2 cred.; jr., sr., grad.)	III-IV	S	206WeH	Mr. Wendt
Ed.C.I.107f†	Radio in Education (3 cred.; jr., sr., grad.; prereq. 9 cred. in ed.)	IX-X	W	302MurH	Mr. Tyler
Ed.C.I.107s†	Radio in Education (3 cred.; jr., sr., grad.; prereq. 9 cred. in ed.)	III	MWF	302MurH	Mr. Tyler
Ed.C.I.114s†	The School Health Education Program (3 cred.; sr., grad.; prereq. Ed.T. 83, P.H. 50 or equiv.)	III-IV	S	3NGW	Miss Starr
	1 hr. ar				
Ed.C.I.129s†	Principles and Problems of Teaching Social Hygiene (2 cred.; jr., sr., grad.; prereq. 9 hrs. in ed.)	VIII-IX	M	Ar	Dr. Pearce
Ed.C.I.145s†	Remedial Reading (3 cred.; prereq. Ed.C.I. 143 or 144 or 159)	I-II	S	100Pt	Mr. Brueckner

* This course may be taken for independent study under Plan B for the Master's degree.

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$1 per credit is charged for this course.

§ Taking the psychological examinations and a C+ average (1.5 honor points per credit) in the major or the subject in which student teaching is done are prerequisite to registration in this course.

No.	Title	Hour	Day	Bldg.	Instructor
Ed.C.I.151w‡	Diagnosis and Remedial Instruction (3 cred.; sr., grad.; prereq. Ed.C.I. 150 or equiv.)				
		I-II and 1 hr. ar	S	210UHS	Mr. Brueckner
Ed.C.I.171f,w,s‡	Curriculum Laboratory Practice—A course in the analysis and construction of units, courses of study, and curricula; class projects and individual projects according to needs, interests, level, and specialization. A special section will be organized for the winter quarter devoted to community resources available within the Twin Cities for curriculum development. Class discussions, survey, field trips (2 to 6 cred.; sr., grad.; prereq. 170 or consent of instructor)				
		Ar(f,s)	Ar	Ar	Mr. Bossing, Mr. Cook
Ed.C.I.174f-175w-176s†‡§	Clinical Methods and Practice in Speech Pathology (9 cred.; sr., grad.; prereq. Sp. 1, 2, 3, 61, 67, 162 and Ed.Psy. 142. May be taken simultaneously with Sp. 163)				
		VIII and ar	WF	406F	Mr. Bryngelson
Ed.C.I.207f,w,s*‡	Problems in Radio Education (1 to 6 cred. ar.)				
		Ar	Ar	Ar	Mr. Tyler
Ed.C.I.215f,w,s*‡	Problems in the School Health Education Program (Cred. ar.; prereq. permission of instructor)				
		Ar	Ar	Ar	Miss Grout
Ed.C.I.216f,w,s‡	Field Work in the School Health Education Program (Cred. ar.; prereq. permission of instructor)				
		Ar	Ar	Ar	Miss Grout
Ed.C.I.217f,w,s‡	Seminar in the School Health Education Program (Cred. ar.; consult instructor)				
		Ar	Ar	Ar	Miss Grout
Ed.C.I.271f,w,s*‡	Problems in Curriculum Construction (2 or 3 cred. a qtr. with a maximum of 6; prereq. completion or current enrolment in one of the following: Ed.C.I. 113 or 119 and 170 or consent of instructor)				
		Ar	Ar	Ar	Mr. Bossing, Mr. Cook
Ed.C.I.273f,w,s*‡	Problems in Reading (2 to 6 cred.; prereq. previous training in reading such as Ed.C.I. 143 or 144 or equiv.)				
		Ar	Ar	Ar	Mr. Cook

ELEMENTARY EDUCATION

Ed.C.I.60f‡	The Teaching of Reading in the Elementary School (3 cred.; sr.; prereq. Ed. 61A-B)				
		VI	MWF	100Pt	Mr. Cook
Ed.C.I.61s‡	Teaching the Social Studies in the Elementary School (2 cred.; jr.; prereq. Ed. 61A-B)				
		VI	TTh	Ar	Mr. Wesley
Ed.C.I.62Af‡	The Teaching of Arithmetic in Primary Grades (2 cred.; sr.; prereq. Ed. 61A-B)				
		VI	TTh	100Pt	Mr. Brueckner
Ed.C.I.62Bw‡	The Teaching of Arithmetic in Intermediate Grades (2 cred.; sr.; prereq. Ed. 61A-B)				
		IX-X	T	100Pt	Mr. Brueckner
Ed.C.I.63Tf‡	Children's Literature (2 cred.; for teachers in service)				
		IX-X	M	206UHS	Miss Smith,
Ed.C.I.63w‡	Children's Literature (2 cred.; sr.; prereq. Ed. 61A-B)				
		VI	TTh	100Pt	Miss Smith
Ed.C.I.64w‡	The Teaching of English in the Elementary School (3 cred.; sr.; prereq. Ed. 61A-B)				
		VI	MWF	100Pt	Miss Smith

* This course may be taken for independent study under Plan B for the Master's degree.

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$1 per credit is charged for this course.

§ Taking the psychological examinations and a C+ average (1.5 honor points per credit) in the major or the subject in which student teaching is done are prerequisite to registration in this course.

COLLEGE OF EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
Ed.C.I.65s‡	The Teaching of Science in the Elementary School (3 cred.; jr., sr.; prereq. Ed. 61A-B)				
		VI	MWF	100Pt	Mr. Mork
Ed.C.I.119f,w‡	Elementary School Curriculum (3 cred.; sr., grad.; prereq. Ed.C.I. 61C or equiv.)	III-IV and 1 hr. ar	S	115UHS	Mr. Cook
Ed.C.I.130w,s‡	Problems in Childhood Education (2 cred.; sr., grad.; prereq. 9 cred. in ed. including Ed.T. 55 or equiv.)				
		VIII-IX	W	202Pt	Mrs. Fuller
Ed.C.I.143w‡	Teaching and Supervision of Reading in the Elementary School (3 cred.; jr., sr., grad.; prereq. 9 hrs. in ed. including Ed. 51A or 61A)				
		4:30-6:30	W	100Pt	Mr. Cook
Ed.C.I.144w‡	Teaching of Reading in the Upper Grades and Junior and Senior High Schools (2 cred.; sr., grad.; prereq. same as for 143)				
		I	TTh	100Pt	Miss Handlan
Ed.C.I.146w‡	Current Developments in Language Expression in the Elementary School (2 cred.; jr., sr., grad.; prereq. Ed. 61A-B-C or equiv. Not open to students who have had Ed.C.I. 64)				
		III-IV	S	206UHS	Miss Smith
Ed.C.I.149w‡	The Teaching and Supervision of Arithmetic in the Elementary School (2 cred.; sr., grad.; prereq. Ed. 61A-B-C or equiv.)				
		IX-X	M	209UHS	Mr. Brueckner
Ed.C.I.150f‡	Supervision and Improvement of Instruction (3 cred.; sr., grad.; prereq. Ed. 61C or equiv.)				
		I-II and 1 hr. ar	S	210UHS	Mr. Brueckner
Ed.C.I.153‡	<i>Supervision and Teaching of English in the Elementary Schools</i> (2 cred.; sr., grad.; prereq. Ed. 61A-B-C or equiv.) (<i>Not offered</i>)				
Ed.C.I.157f,w,s‡	Practice in Supervision (3 cred. a qtr.; sr., grad.; prereq. consent of instructor)	Ar	Ar	Ar	Mr. Brueckner
Ed.C.I.170A‡	<i>Curriculum and Course of Study Construction</i> —A study of the principles and methods for the selection and organization of units, courses of study, and curricula at the elementary school level (3 cred.; sr., grad.; prereq. 119 or consent of instructor) (<i>Not offered</i>)				
Ed.C.I.173As‡	Organizing Units of Instruction in the Elementary School—A consideration of the principles and procedures involved in the organization of units (center of interest units, activity units, experience units, etc.) utilizing natural science and social studies content in the development of reading skills, oral and written composition skills, arithmetic skills, study skills, and desirable social behavior (3 cred.; sr., grad.; prereq. 119 or teaching experience)				
		III-IV	S	105UHS	Mr. Cook
Ed.C.I.181s‡	Foundations of Elementary School Methods (3 cred.; sr., grad.; prereq. 9 hrs. in ed.)				
		II	MWF	100Pt	Mr. Brueckner
Ed.C.I.190‡	<i>Principles of Selection of Materials for Reading in the Elementary School</i> (2 cred.; sr., grad.; prereq. 63 or 122 or equiv.) (<i>Not offered—ordinarily offered in alternate years</i>)				
Ed.C.I.226f,w,s	Seminar in Elementary School Problems				
		IX-X	Th	209Bu	Mr. Brueckner, Mr. Cook
Ed.C.I.261f,w,s*‡	Special Problems in School Supervision (2 cred.; prereq. 10 hrs. in ed. including Ed. 51A or equiv.)				
		Ar	Ar	220Bu	Mr. Brueckner
Ed.C.I.263f*‡	Research in Arithmetic Instruction (2 cred.; prereq. Ed.C.I. 148 or 149 or equiv.)	III-IV	S	209UHS	Mr. Brueckner
Ed.C.I.264s*‡	Research in Educational Diagnosis (2 cred.; prereq. Ed.C.I. 151 or equiv.)	IX-X	M	209UHS	Mr. Brueckner
SECONDARY EDUCATION					
Ed.C.I.113w‡	High School Curriculum (4 cred.; sr., grad.; prereq. 10 hrs. in ed. including Ed. 51A-B-C)				
		I-II and 1 hr. ar	S	209UHS	Mr. Bossing

* This course may be taken for independent study under Plan B for the Master's degree.

‡ A fee of \$1 per credit is charged for this course.

No.	Title	Hour	Day	Bldg.	Instructor
Ed.C.I.122s†	Literature for Adolescents (2 cred.; jr., sr., grad.; prereq. Ed. 51C or junior-senior teaching experience)	I-II	S	206UHS	Miss Smith
Ed.C.I.135w‡	Teaching of Occupations and Group Guidance (2 cred.; sr., grad.; prereq. Ed.Psy. 133 or permission of instructor)	III-IV	S	106Pt	Miss Edwards, Miss Wright
Ed.C.I.144w‡	Teaching of Reading in the Upper Grades and Junior and Senior High Schools (2 cred.; sr., grad.; prereq. 9 hrs. in ed. including Ed. 51A)	I	TTh	100Pt	Miss Handlan
Ed.C.I.168w‡	Current Developments in the Social Studies (2 cred.; grad. only)	III-IV	S	207UHS	Mr. Wesley
Ed.C.I.169w‡	Extracurricular Activities (2 cred.; prereq. 10 hrs. in ed. including Ed. 51A)	III	TTh	106Pt	Mr. Bossing
Ed.C.I.170Bs†	Curriculum and Course of Study Construction—A study of the principles and methods for the selection and organization of units, courses of study, and curricula at the secondary school level (3 cred.; sr., grad.; prereq. 113 or 119 and 170 or consent of instructor)	I-II and 1 hr. ar	S	209Bu	Mr. Bossing
Ed.C.I.173B†	Organizing Units of Instruction in the Secondary School (2 cred.; sr., grad.; prereq. 113 or consent of instructor) (Not offered in 1944-45)				
Ed.C.I.191s†	Advanced Course in the Teaching and Supervision of Secondary School Mathematics (2 cred.; prereq. Ed. 51C or permission of instructor)	I-II	S	105UHS	Mrs. Turner
Ed.C.I.198‡	Recent Literature in Methods and Curriculum in Secondary School English (2 cred.; sr., grad.; prereq. Ed.T. 66A-B-C or equiv.) (Not offered)				
Ed.C.I.199Ef,w,s†	Internship (Cred. ar.; grad.)	Ar	Ar	Ar	Mr. Anderson
Ed.C.I.201f,w,s*‡	Problems in Teaching the Social Studies (3 cred. a qtr.; grad.; prereq. consent of instructor)	4:00	T	226Bu	Mr. Wesley
Ed.C.I.204f†	Social Studies Curriculum (2 cred.)	III-IV	S	207UHS	Mr. Wesley
Ed.C.I.222f,w,s	Seminar—Current Problems in Technique of High School Instruction (With or without credit; prereq. Ed. 51C and Ed.C.I. 113)	IX-X	Th	210UHS	Mr. Bossing, Mr. Johnson, Miss Smith, Mr. Wesley
Ed.C.I.225f,w,s*‡	Special Problems in Supervision of Instruction in Secondary Schools (Cred. ar.)	Ar	Ar	218Bu	Mr. Boardman
Ed.C.I.254s†	Supervision of the Social Studies (2 cred.; sr., grad.; prereq. Ed. 61A-B-C or equiv.)	III-IV	S	207UHS	Mr. Wesley
Ed.C.I.266s†	Supervision of High School Instruction (3 cred.)	IX-X 1 hr. ar	F	210UHS	Mr. Boardman
Ed.C.I.287f†	Advanced Course in the Teaching of Science (2 cred.; sr., grad.; prereq. Ed. 51C)	III-IV	S	106UHS	Mr. Johnson
Ed.C.I.293s*‡	Foundations of Secondary School Methods (3 cred.)	IX-X and 1 hr. ar	T	106UHS	Mr. Johnson
Ed.C.I.294f*‡	Advanced Course in Methods of Teaching English (2 cred.; prereq. Ed.T. 66A-B-C or equiv.)	IX-X	T	209UHS	Miss Smith
Ed.C.I.296f,w,s*‡	Special Problems in Teaching English (Cred. ar.; grad.) Fall—Mechanics of Expression Winter—Special Problems in Teaching English Spring—Unit Procedures in Literature	III-IV(f) Ar(w) IX-X(s)	S Ar M	206UHS 206Bu 206UHS	Miss Smith Miss Smith Miss Smith

* This course may be taken for independent study under Plan B for the Master's degree.

‡ A fee of \$1 per credit is charged for this course.

COLLEGE OF EDUCATION

HIGHER EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
Ed.C.I.184f‡	Supervision of Student Teaching (2 cred.; sr., grad.)	Ar	Ar	Ar	Mr. Anderson
Ed.C.I.228f,w,s*‡	Problems of Higher Education and Teacher Training (Cred. ar.)	Ar	Ar	Ar	Mr. Peik, Miss Eckert
Ed.C.I.250f‡	Higher Education in the United States—Curriculum and instruction (3 cred.; prereq. 15 hrs. in ed.)	I-II 1 hr. ar		S 206UHS	Miss Eckert
Ed.C.I.285f‡	Professional Education of Teachers (2 cred.; prereq. 15 hrs. in ed.)	III-IV		S 105UHS	Mr. Peik

EDUCATIONAL ADMINISTRATION

Major advisers—Professors Neale, Boardman, and Bossing.

GENERAL COURSES

Ed.Ad.124f	Public School Administration (3 cred.; sr., grad.; prereq. 10 hrs. in ed.)	IX	MWF	210Bu	Mr. Neale
Ed.Ad.125w	Pupil Personnel Administration (3 cred.; sr., grad.; prereq. 124)	IX-X and 1 hr. ar	M	210Bu	Mr. Neale
Ed.Ad.127f	Teacher and Employee Administration (3 cred.; sr., grad.; prereq. 124)	III-IV 1 hr. ar	S	109UHS	Mr. Neale
Ed.Ad.210s*	Financial Aspects of Public School Business Administration (3 cred.; prereq. 124, 125)	I-II 1 hr. ar	S	110UHS	Mr. Neale
Ed.Ad.226s	School Plant Planning and Management (3 cred.; sr., grad.; prereq. 124, 125)	IX-X 1 hr. ar	M	210Bu	Mr. Neale
Ed.Ad.228f,w,s*	Special Problems in Educational Administration (1 or 3 cred.; prereq. 124, 125)	Ar	Ar	224Bu	Mr. Neale
Ed.Ad.230f*	Public Relations for Schools (3 cred.; grad.)	I-II 1 hr. ar	S	109UHS	Mr. Neale
Ed.Ad.235f,w,s	Seminar in Educational Administration	Ar	Ar	224Bu	Mr. Neale

ELEMENTARY EDUCATION

Ed.Ad.115w	Organization of the Elementary School (3 cred.; jr., sr., grad.; prereq. 10 hrs. in ed.)	III-IV 1 hr. ar	S	110UHS	Mr. Neale
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SECONDARY EDUCATION

Ed.Ad.133f	Guidance in Secondary Schools (2 cred.; sr., grad.; prereq. 9 hrs. in ed.)	III-IV	S	106Pt	Miss Edwards, Miss Wright
Ed.Ad.167f	Junior High School (3 cred.; sr., grad.; prereq. 10 hrs. in ed. including Ed. 51)	I-II and 1 hr. ar	S	105UHS	Mr. Bossing

* This course may be taken for independent study under Plan B for the Master's degree.

‡ A fee of \$1 per credit is charged for this course.

No.	Title	Hour	Day	Bldg.	Instructor
Ed.Ad.218f,w,s	Recent Literature in Secondary Education (Cred. ar.)	IX-X	W	210UHS	Mr. Boardman, Mr. Bossing
Ed.Ad.264f	The Organization of the Secondary School (3 cred.)	III-IV 1 hr. ar		S 210UHS	Mr. Boardman
Ed.Ad.265w	The Administration of the Instructional Activities of the Secondary School (3 cred.)	III-IV 1 hr. ar		S 210UHS	Mr. Boardman
Ed.Ad.266s	The Administration of the Non-Instructional Activities of the Secondary School (3 cred.)	III-IV 1 hr. ar		S 210UHS	Mr. Boardman
Ed.Ad.270f,w,s*	Special Problems in Secondary Education (Cred. ar.; maximum 9 cred.)	Ar	Ar Ar	Ar	Mr. Boardman, Mr. Bossing

HIGHER EDUCATION

Ed.Ad.253w	Administration in Higher Education (3 cred.; prereq. consent of instructor)	VII-VIII	T	224Bu	Mr. Neale
		1 hr. ar.			

EDUCATIONAL PSYCHOLOGY

Major advisers—Professors Cook, Miller, Johnson, and McConnell; Associate Professor Van Wagenen.

GENERAL COURSES

Ed.Psy.60f	Introduction to Measurement and Statistics (2 cred.; jr., sr.; prereq. 6 cred. in psy.)	I-II		S 106Pt	Mr. Cook
Ed.Psy.60w,s	Introduction to Statistical Methods (3 cred.; see 60f)	II	MWF	106Pt	Ar
Ed.Psy.120f	Basic Principles of Measurement (3 cred.; sr., grad.; prereq. Ed.Psy. 60 or equiv.)	VII	MWF	100Pt	Mr. Cook
Ed.Psy.120s	Basic Principles of Measurement (3 cred. See 120f)	4:00-6:00		T 105UHS	Mr. Cook
Ed.Psy.133f	Guidance in Secondary Schools (2 cred.; sr., grad.; prereq. 9 hrs. in ed.)	III-IV		S 106Pt	Miss Edwards, Miss Wright
Ed.Psy.140w	Instruments and Techniques of Measurement (3 cred.; sr., grad.; prereq. 120 or equiv.)	VIII-IX	TTh	Ar	Mr. Cook
Ed.Psy.141w	Group Aptitude Testing (3 cred.; sr., grad.; prereq. 120 or equiv.)	VII	MWF	Ar	Mr. Miller
Ed.Psy.142f	Individual Aptitude Testing (3 cred.; sr., grad.; prereq. 120 or equiv.)	VII	MWF	Ar	Ar
Ed.Psy.143	<i>Individual Mental Testing Laboratory</i> (2 cred.; prereq. Ed.Psy. 142) (<i>Not offered</i>)				
Ed.Psy.150f,w	Psycho-educational Clinic (2 to 6 cred.; sr., grad.; permission of instructor; prereq. 120, 140 and 141 or 142)	V	W and ar.	Ar	Ar
Ed.Psy.159s	Personality Adjustments in Education (2 cred.; sr., grad.; prereq. 9 hrs. in ed. and psy. including one recent course in psy.)	4:00-5:30		T 100Pt	Ar

* This course may be taken for independent study under Plan B for the Master's degree.

COLLEGE OF EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
Ed.Psy.208w*	Methods in Educational Research (2 cred.)	III-IV	S	105UHS	Mr. Johnson
Ed.Psy.216f-217w-218s	Statistical Methods in Education (3 cred. a qtr.; grad.)	II	MWF	109Psy	Mr. Johnson
Ed.Psy.220w-221s	Advanced Theory of Measurement (2 cred. a qtr.; prereq. Ed.Psy. 120 and 216 or equiv.)	IX-X	T	115Psy	Mr. Van Wageningen
Ed.Psy.225s*	Diagnosis and Counseling in a Student Personnel Program (3 cred.; prereq. Ed. 133 and Ed.Psy. 120 or equiv.)	IX-X	W	210Bu	Miss Edwards
Ed.Psy.233f,w,s	Problems in Guidance and Personnel Work (Cred. ar.; prereq. consent of instructor)	Ar	Ar	202Bu	Miss Edwards
Ed.Psy.240f,w,s*	Problems in Measurement (2 cred. a qtr.)	Ar	Ar	Ar	Mr. Johnson
Ed.Psy.243f,w,s	Problems in Statistics for Students in Education and Psychology (With or without credit. Cred. ar.)	Ar	Ar	Ar	Mr. Johnson
Ed.Psy.253f,w,s*	Research Problems (Ar.; prereq. consult instructor) (See also Ed.Psy. 233 and Ed.Psy. 240)	Ar	Ar	Ar	Mr. Miller, Mr. Cook, Mr. Van Wageningen
Ed.Psy.281f,w,s	Practice in Personnel Work (2-3 cred. Maximum 9 cred.; prereq. Ed.Psy. 225, or to be taken concurrently, and consent of instructor)	Ar	Ar	Ar	Miss Edwards
Ed.Psy.290f-291w	Individual Differences (3 cred. a qtr.; prereq. Ed.Psy. 60 or equiv. and permission of instructor)	III	MWF	301Psy	Mr. Miller
Ed.Psy.292s*	Recent Literature in Educational Psychology (3 cred.; prereq. permission of instructor)	III	MWF	301Psy	Mr. Miller
Ed.Psy.293w*	Psychology of Learning (3 cred. a qtr.; prereq. 12 cred. in psy. and ed. psy.)	IV	MWF	100Pt	Mr. Anderson
Ed.Psy.294*	<i>Recent Theory and Research in Human Learning</i> (3 cred. Consult instructor) (Not offered)				

ELEMENTARY EDUCATION

Ed.Psy.113f-114w-115s	Psychology of Elementary School Subjects (2 cred. per qtr.; jr., sr., grad.; prereq. 10 cred. in psy. and ed.)	IX-X	W	109Psy	Mr. Van Wageningen
Ed.Psy.146-147†	<i>Child Guidance</i> (4 cred.; jr., sr., grad.; prereq. 15 cred. in psy. and ed.) (Not offered)				
Ed.Psy.182w	Education of Handicapped Children (2 cred.; jr., sr., grad.; prereq. Ed. 51A or 61A or equiv.)	II	TTh	100Pt	Mr. Van Wageningen
Ed.Psy.183f	Education of Gifted Children (2 cred.; jr., sr., grad.; prereq. Ed. 51A or equiv.)	III	TTh	106Pt	Mr. Van Wageningen
Ed.Psy.184s	Education of the Slow Learning Child (2 cred.; jr., sr., grad.; prereq. Ed. 51A or equiv.)	II	TTh	106Pt	Mr. Van Wageningen

* This course may be taken for independent study under Plan B for the Master's degree.

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

SECONDARY EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
Ed.Psy.158s	Psychology of Adolescence (3 cred.; jr., sr., grad.; prereq. Ed. 51A or equiv.)	III	MWF	106Pt	Miss Edwards
Ed.Psy.182w	Education of Handicapped Children (See above)	II	TTh	100Pt	Mr. Van Wageningen
Ed.Psy.183f	Education of Gifted Children (See above)	II	TTh	106Pt	Mr. Van Wageningen

HIGHER EDUCATION

Ed.Psy.252w	Student Personnel Work in College and University (3 cred.; prereq. 250 or 251 or 253 or 254)	IX-X	W Ar	Ar	
Ed.Psy.254s	Measurement and Evaluation in Higher Education (3 cred.; 15 hrs. in ed.)	I-II 1 hr. ar.	S	106UHS	Mr. Johnson

HISTORY AND PHILOSOPHY OF EDUCATION

Major advisers—Professor Wesley; Associate Professor Brameld; Assistant Professor Jean H. Alexander.

NOTE—See also Ed. 150, Education for Postwar Reconstruction, page 117.

GENERAL COURSES

H.Ed.71f,w,s	Brief Course in History of Education (5 cred.; jr., sr.; no prereq.)	IV	MTWFS	210Bu	Miss Alexander
H.Ed.73f	Educational Sociology (3 cred.; jr., sr.; prereq. 6 cred. in psy.)	VII	MWF	301Psy	Mr. Brameld and others
H.Ed.74w	Social Viewpoints in Education (3 cred.; soph., jr., sr.; no prereq.)	VII and 1 hr. ar.	TTh	301Psy	Mr. Brameld
H.Ed.76f,s	Introduction to Philosophy of Education (3 cred.; jr., sr.; no prereq. Not open to students who have taken 176)	VII(f) and 1 hr. ar	TTh	301Psy	Mr. Brameld
H.Ed.101f	Historical Foundations of Modern Education (3 cred.; jr., sr., grad.; no prereq.)	VII(s)	MWF	301Psy	Mr. Brameld
H.Ed.102w	History of Modern Secondary and Higher Education (3 cred.; jr., sr., grad.; no prereq.)	VI	MWF	210Bu	Miss Alexander
H.Ed.103	History of Modern Elementary Education (3 cred.; jr., sr., grad.; no prereq. Not open to students who have had H.Ed. 71) (Not offered—ordinarily offered in alternate years)	VI	MWF	210Bu	Miss Alexander
H.Ed.155s	History of Public Education in the United States (3 cred.; jr., sr.; no prereq.)	VI	MWF	210Bu	Miss Alexander
H.Ed.176w	Conflicting Issues in Modern Education (2 cred.; jr., sr., grad.; not open to students who have taken 76; prereq. 6 hrs. in psy.)	IX-X	M	301Psy	Mr. Brameld
H.Ed.178	Education and Problems of American Democracy (3 cred.; jr., sr., grad.; prereq. 6 cred. in soc. sci.) (Not offered)	IX-X	M	301Psy	Mr. Brameld
H.Ed.179s	Critical Thinking for Teachers (3 cred.; jr., sr., grad.; prereq. 6 cred. in psy.)	IX-X	M	301Psy	Mr. Brameld
H.Ed.180	The School and the Social Order (3 cred.; jr., sr., grad.; prereq. 6 cred. in soc. sci.) (Not offered in 1944-45)				
H.Ed.181	Tutorial Work in Educational Sociology and Philosophy (3 cred.; jr., sr., grad.; prereq. 2 cred. from the following: 73, 74, 76, 176, 177, 178, 179, 180) (Not offered)				

COLLEGE OF EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
H.Ed.240w	Philosophic Foundations of Modern Education (3 cred.; grad.; no prereq.)	III-IV	S	301Psy	Mr. Brameld
H.Ed.241f,w,s	Problems in the History and Philosophy of Education (Cred. ar.; prereq. permission of instructor)	Ar	Ar	226Bu 216ABu	Mr. Wesley Mr. Brameld

SECONDARY EDUCATION

H.Ed.102w	History of Modern Secondary and Higher Education (3 cred.; jr., sr., grad.; no prereq.)	VI	MWF	210Bu	Miss Alexander
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HOME ECONOMICS EDUCATION

Major advisers—Professors Wylle B. McNeal and Clara M. Brown; Associate Professor Ella J. Rose.

Note—Courses in Home Economics are open to all students in the College of Education who have satisfied the prerequisites or by permission of the chief of the division. For program of courses see page 152.

H.E.Ed.90f,s	Child Training (3 cred.; soph., jr., sr.; prereq. Psy. A or Psy. 1-2 or parallel Psy. 2)	IV	MWF	213HE(f) 313HE(s)	Mrs. Fuller
H.E.Ed.91f,w,s,§	Observation, Materials, Teaching in Home Economics (5 cred.; jr., sr.; prereq. H.E. 4, 21, 22, 41, Psy. A or Psy. 1-2, Ed. 51A, 51C, parallel H.E.Ed. 93 and 192; home experience**)	VI	MTWThF	114HE	Miss Rose, Miss Kafka
H.E.Ed.92w,s	Teaching Problems in Home Economics (2 cred.; sr.; prereq. H.E.Ed. 91, 93, 94 or parallel, 192)	VII	TTh	114HE	Miss Rose, Miss Kafka
H.E.Ed.93, 94f,w,s,§§	Supervised Teaching in Home Economics (6 cred.; jr., sr.; prereq. H.E. 4, 21, 22, 41, Psy. A or Psy. 1-2, Ed. 51A, 51C, parallel H.E.Ed. 91, 192; home experience**)	Ar	Ar Ar		Miss Rose, Miss Kafka, Miss Segol- son, Miss Inman, Miss Gilpin
H.E.Ed.192f,w,s	Evaluation in Home Economics (2 or 3 cred.; jr., sr., grad.; prereq. Ed. 51A)	VIII	TTh	213HE	Miss Clara
H.E.Ed.193f,w,s	Home Economics Curriculum (2 or 3 cred.; sr., grad.; prereq. permission of instructor)	II(f)	MWF	114HE	Brown, Miss Rose
	Sec. 1 Secondary school level	IX-X(f,s)	W	114HE	Miss Clara Brown, Miss Rose
	2 College level	III(w)	MWF	114HE	Miss Clara Brown

‡ A fee of \$1 per credit is charged for this course.

§ A C+ average (1.5 honor points per credit) in the major is prerequisite to registration in this course.

¶ A grade of at least C is required in the following courses: H.E. 3, 4, 21, 22, 27, 34 or (170), 40, 41.

** Plans for the home experience prerequisite for H.E.Ed. 91 and 93 will be made in conferences for first quarter juniors on Tuesdays IV hour; in Room 114 HE with Miss Inman.

No.	Title	Hour	Day	Bldg.	Instructor
H.E.Ed.194Af,Bs	Adult Education in Home Economics (3 cred. a qtr.; jr., sr., grad.; prereq. H.E.Ed. 91, 93 or parallel)	II-III(f) and 2 hrs. ar.	S	114HE	Miss Krost
		VIII(s) and III-IV	TTh S	114HE	Miss Krost
H.E.Ed.197f,w,s‡	Organization and Methods for Related Art Teaching (1 to 3 cred.; sr.; prereq. H.E.Ed. 91; H.E. 180 or parallel)	II	S	401HE	Miss H. Goldstein
H.E.Ed.199Ef,w,s	Internship (Cred. ar.; grad.)	Ar	Ar	Ar	Miss Rose
H.E.Ed.243f,w,s	Trends in Home Economics (3 cred.; prereq. permission of instructor)	III-IV	S	114HE	Miss Rose
H.E.Ed.292s*	Problems in Evaluation (3 cred.; prereq. H.E.Ed. 192)	VI	MWF	213HE	Miss Clara Brown
H.E.Ed.293f,w,s*	Problems in Home Economics Education (1 to 9 cred.; prereq. permission of instructor)	Ar	Ar	Ar	Miss Clara Brown, Miss Rose
H.E.Ed.294w,s*	Research Methods (3 to 6 cred.; prereq. permission of instructor)	VI	MWF	203HE	Miss Clara Brown, Miss Rose
H.E.Ed.295f,w,s*	Seminar in Home Economics Education (Cred. ar.)	IX	TTh	114HE	Miss McNeal, Miss Clara Brown, Miss Rose

INDUSTRIAL EDUCATION

Major adviser—Professor Homer J. Smith.

Ind.11f,w,s‡¶	Special-Class Woodwork (2 cred.; no prereq.; not open to those who have credit in bench woodwork or cabinet making; for teachers of art, subnormal and elementary grade work; not used in substitution) (Limited to 24)	I-IV	S	6Pt	
Ind.30f	Graphic Presentation (3 cred.; no prereq.)	IX-X and 1 hr. ar.	M	202EdH	Mr. Smith
Ind.40f	Analysis (2 cred.; no prereq.)	IX-X	T	202EdH	Mr. Hill
Ind.42w	Course Organization (2 cred.; prereq. Ind. 40)	IX-X	W	202EdH	Mr. Smith
Ind.44s	Equipment and Management (2 cred.; prereq. Ind. 40, 42)	IX-X	T	202EdH	Mr. Hill
Ind.50Af-50Bw-50Cs‡¶	Directed Teaching (6 cred.; sr.; prereq. Ind. 70 or 75; and 80)	Ar	Ar	6Pt	
Ind.60f	Philosophy of Vocational Education (2 cred.; no prereq.)	IX-X	W	202EdH	Mr. Smith
Ind.61s	Practices in Vocational Education (2 cred.; prereq. Ind. 60)	IX-X	Th	202EdH	Mr. Smith
Ind.66s	Related Subjects (2 cred.; prereq. Ind. 40, 42)	IX-X	T	202EdH	Mr. Smith
Ind.70f‡	Methods in Shop Subjects (3 cred.; prereq. Ind. 40, 42)	IX-X	W	202EdH	Mr. Smith
		and 1 hr. ar.			

* This course may be taken for independent study under Plan B for the Master's degree.

‡ A fee of \$1 per credit is charged for this course.

§ A C+ average (1.5 honor points per credit) in the major is prerequisite to registration in this course.

¶ Not a part of the four-year curriculum.

COLLEGE OF EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
Ind.75	<i>Methods in Drawing (Not offered)</i>				
Ind.80w	General Industrial Training (2 cred.; no prereq.) (Not a shop course)	IX-X	Th	202EdH	Mr. Smith
Ind.101s	Tests in Industrial Subjects (3 cred.; prereq. Ed. 51A)	IX-X and 1 hr. ar.	F	202EdH	Mr. Smith
Ind.102w¶	The General Shop (2 cred.; jr., sr.; prereq. Ind. 80) (Not a shop course)	IX-X	T	202EdH	
Ind.103	<i>Instructional Aids (Not offered)</i>				
Ind.104	<i>Defense Training (2 cred.; no prereq.; jr., sr., grad.; may be used in substitution for certain courses) (Not offered)</i>				
Ind.105s¶	Administration of Industrial Education (3 cred.; jr., sr., grad.)	III-IV	S	202EdH	Mr. Smith
Ind.107w¶	Co-ordination (2 cred.; jr., sr., grad.; prereq. Ind. 60, 61 or 105 or consent of instructor)	IX-X	M	202EdH	Mr. Hill
Ind.108s¶	Apprenticeship (2 cred.; jr., sr., grad.; prereq. consent of instructor)	IX-X	M	202EdH	Mr. Hill
Ind.109f¶	Conference Leading for Industry (2 cred.; prereq. consent of instructor)	IX-X	M	202EdH	Mr. Hill
Ind.110w	Guidance in the Schools (3 cred.; jr., sr., grad.; prereq. Ed. 51A. See Ed. 133)	IX-X and 1 hr. ar.	F	202EdH	Mr. Smith
Ind.115w¶	Supervision of Industrial Education (3 cred.; jr., sr., grad.; prereq. 60-61 or 105)	I-II	S	202EdH	Mr. Hill
Ind.170f¶	Day Industrial Schools (2 cred.; jr., sr., grad.)	IX-X	F	202EdH	
Ind.171	<i>Evening Industrial Schools (Not offered)</i>				
Ind.172	<i>Part-time Education (2 cred.; jr., sr., grad.; prereq. Ind. 170, 171) (Not offered)</i>				
Ind.200f,w,s*¶	Research Problems—Individual conferences only (3, 6, or 9 cred.; total of 9 cred. required; graduates only; individual conferences only)	Ar	Ar	200EdH	Mr. Smith
Ind.250f-251w¶	Industrial Education Literature (3 cred. a qtr.; 6 credits required; graduates only)	III-IV	S	202EdH	Mr. Smith

Off-Campus Courses and Services—Mr. Hill.

Dunwoody Shop and Drawing Courses—arranged by Mr. Smith. (Special blank must be used.)

Shop and drawing courses are available in wide variety in the Institute of Technology, University campus, and the Division of Agricultural Engineering, Farm campus. Students may elect to pursue courses, day or evening, at the William Hood Dunwoody Industrial Institute without fees other than those paid to the University, except a deposit of \$1. Degree candidates, especially those transferring from other institutions, should bear in mind the maximum of 45 credits in shop work and drawing combined, which is enforced in this department. Credits in excess of 45 will be recorded but will not be counted toward degree requirements. Graduate students may have such credits recorded but they will not be counted toward their degrees.

Curriculum revision—See College of Education Bulletin for 1944-46 for revised form, or request mimeographed materials at 200 Eddy Hall.

Graduate programs—The departmental office will provide mimeographed materials descriptive of admission requirements and program patterns for both the M.A. and M.Ed. degrees, plans A, B, X, and Y. Conferences and correspondence concerning Ph.D. programs are invited.

METHODS AND DIRECTED TEACHING

Major adviser—Assistant Professor Anderson.

Time required—Students registered for practice teaching spend at least one hour a day in observation and teaching. They should get their practice teaching assignment before completing their registration for other classes. They should count on spending a minimum of 12 hours a week in all directed teaching courses.

* This course may be taken for independent study under Plan B for the M.A. degree or under Plan Y for the M.Ed. degree.

¶ Not a part of the four-year curriculum.

Honor point average—For registration in all special methods and directed teaching courses, a C+ average (1.5 honor points) per credit in the major or in the subject in which student teaching is done, is required.

Conference for student teachers—The director of student teaching will arrange for a series of conferences which are a part of the required work in directed teaching. The hours at which these conferences are held will be announced in the fall.

Statement of fees—For all courses in methods, directed teaching, and special methods and directed teaching combined, a fee of \$1 per credit is charged. Taking the psychological examinations given by the College of Education and a C+ average (1.5 honor points per credit) in the major or the subject in which student teaching is done are prerequisite to all special methods and student teaching courses. For Clinical Methods and Directed Teaching in Speech Pathology see Ed.C.I. 174-175-176. For methods and directed teaching in special subjects see department concerned.

NURSING EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
Ed.T.51Af,w,†§¶	Special Methods of Teaching in Schools of Nursing (3 cred.; sr., grad.; prereq. or parallel Ed. 51A,B and Nu. 69)	VI	MWF	Ar	Miss Harrington
Ed.T.51Bf,w,s,†§¶	Special Methods of Teaching and Directed Teaching in Schools of Nursing (5 cred.; sr., grad.; prereq. Ed.T. 51A; prereq. or parallel Nu. 71)	III	MWF	Ar	Miss Harrington
					and 2 hrs. ar.

RECREATION LEADERSHIP

Ed.T.85Af-85Bw-85Cs†	Practice and Field Work in Recreation Leadership (3 cred. for minors, 6 cred. for majors; sr.; prereq. Phys.Ed. 57, 136, or permission of instructor)	Ar	Ar	Ar	Mr. Nordly
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SCHOOL HEALTH

Ed.T.83w	Methods and Materials of School Health Education (3 cred.; sr.; prereq. P.H. 3, 4, 59)	III	MWF	201NGW	Miss Starr
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ELEMENTARY EDUCATION

Ed.T.53A-53Bf,w,s,†§	Directed Teaching of Subnormal Children (5-8 cred.; sr.)	Ar	Ar	Ar	Mr. Anderson
Ed.T.54A-54B-54C†§	Directed Teaching in the Elementary School (54A, 3 cred.; 54B, 5 cred.; 54C, 3 to 5 cred.; sr.; prereq. Ed. 61A-B, Ed.C.I. 60, 61) (Students may register any quarter; 54A and 54B are required; 54C is elective)	Ar	Ar	Ar	Mr. Anderson
Ed.T.55††	Principles of Early Childhood Education (3 cred.; jr., sr.; prereq. C.W. 80 or simultaneously)	VIII	MWF	202Pt	Mrs. Fuller
Ed.T.56w†	Permanent Play Materials (2 cred.; jr., sr.; prereq. Ed.T. 55)	VII	WF	202Pt	Ar

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$1 per credit is charged for this course.

§ Taking the psychological examinations and a C+ average (1.5 honor points per credit) in the major or the subject in which student teaching is done are prerequisite to registration in this course.

¶ Requirements for registration in Ed.T. 51A-B are as follows:

1. A passing grade in Ed. 51A and B.
2. Taking the psychological examinations.
3. Attainment of a scholastic average of 1.5 in the field in which the practice teaching is to be done. A major portion of the work in the teaching field should be completed.
4. The recommendation of the subject-matter department in the major field.
5. Passing of the required speech test.

COLLEGE OF EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
Ed.T.57s†	Plastic Materials (3 cred.; jr., sr.; prereq. Ed.T. 55)	VIII	MWF	202Pt	Miss Headley
Ed.T.59w†	Story Telling for Young Children (2 cred.; jr., sr.; prereq. Ed.T. 55)	V	TTh	202Pt	Miss Headley
Ed.T.75f,w,s†	Methods and Observation in the Nursery School (3 cred.; sr.; prereq. C.W. 40, Ed.T. 55, 56, 57, 59. Open only to students in home econ. and nursing ed.)	VII	M and ar.	Ar	Ar
Ed.T.76Af,w,s†	Methods and Observation: Nursery School (2 cred.; jr.; prereq. Psy. 1-2)	V	F and ar.	202Pt	Ar
Ed.T.76Bw†	Methods and Observation: Home-School Relations (2 cred.; jr., sr.; prereq. Ed.T. 55)	V	F and ar.	202Pt	Mrs. Cummings
Ed.T.76Cf,w,s†	Methods and Observation: Kindergarten (2 cred.; jr.; prereq. Ed.T. 55)	V	M and ar.	202Pt	Miss Headley
Ed.T.77Af,w,s†§	Directed Teaching in the Nursery School (4 cred.; sr.; prereq. Ed.T. 55, 56, 57, 59, and 76A)	IX	M	202Pt	Mrs. Fuller
Ed.T.77Bf,w,s†§	Directed Teaching in the Primary Grades (4 cred.; sr.; prereq. Ed.T. 55, 56, 57, 59, and 76A)	IX	M	202Pt	Mrs. Fuller
Ed.T.77Cf,w,s†§	Directed Teaching in the Kindergarten (4 cred.; sr.; prereq. Ed.T. 55, 56, 57, 59, and 76C)	IX	M	202Pt	Mrs. Fuller

SECONDARY EDUCATION

Ed.T.52f,w,s†§	Directed Teaching (5 cred.; sr.; prereq. Special Methods Course. This course, 5 cred., and Special Methods, 4 cred.; satisfy the 9 cred. requirement of Special Methods and student teaching in a secondary school teaching major)	Ar	Ar	Ar	Mr. Anderson
Ed.T.61s†§	Teachers Course in Norwegian (3 cred.; sr.; prereq. Scand. 4-5-6)	Ar	Ar	122F	
Ed.T.62f,w†§	Teachers Course in Swedish (3 cred.; sr.; prereq. Scand. 10-11-12)	VII	MWF	122F	
Ed.T.66Af-66Bw-66Cs††§	Special Methods and Directed Teaching in Secondary School English (9 cred.; sr.; prereq. consent of instructor)	VIII	TTh(f,w)	210Bu	Miss Smith
		VIII	TTh(s)	308F	Mr. Gilkinson
Ed.T.66Amf,s†§	The Teaching of Composition in Secondary Schools (2 cred.; sr.)	VIII(f)	TTh	210Bu	Miss Smith
Ed.T.66Bmw†§	The Teaching of Literature in Secondary Schools (2 cred.; sr.)	VI-VII(s)	T	206Bu	Miss Smith
Ed.T.67Af-67Bw-67Cs††§	Special Methods and Directed Teaching in Mathematics (9 cred.; sr.; prereq. Math. 50 or 60)	VIII	TTh	210Bu	Miss Smith
		VIII	TTh	211UHS	Mrs. Turner
Ed.T.67Amf-67Bmw††§	The Teaching of Secondary School Mathematics (4 cred.; sr.; prereq. consent of instructor)	VIII	TTh	211UHS	Mrs. Turner

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$1 per credit is charged for this course.

§ A C+ average (1.5 honor points per credit) in the major or the subject in which student teaching is done and taking the required psychological examinations are prerequisite to registration in this course.

No.	Title	Hour	Day	Bldg.	Instructor
Ed.T.68Af-68Bw- 68Cst†‡	Special Methods and Directed Teaching in Secondary School Science (9 cred.; sr.; prereq. consent of instructor)	IX and 6 hrs. ar.	MW	213UHS	Mr. Johnson, Mr. Mork
Ed.T.68Amf- 68Bmw†‡	Methods of Teaching Secondary School Science (4 cred.; sr.; prereq. consent of instructor)	IX	MW	213UHS	Mr. Johnson, Mr. Mork
Ed.T.69Af-69Bw- 69Cst†‡	Special Methods and Directed Teaching in the Social Studies (9 cred.; sr.; prereq. 30 cred. in hist. or soc. sci. Consult instructor)	VIII and 6 hrs. ar.	MW	100Pt	Mr. Wesley
Ed.T.69Amf- 69Bmw†‡	Methods of Teaching the Social Studies (For students with a major in the social studies) (4 cred.; sr.; prereq. consent of instructor)	VIII	MW	100Pt	Mr. Wesley
Ed.T.70Af-70Bw- 70Cst†‡	Special Methods and Directed Teaching in Modern Languages (9 cred.; sr.; prereq. consent of instructor)	IX and 6 hrs. ar.	MW	106UHS	Miss Birkmaier
Ed.T.71Af-71Bw- 71Cst†‡	Special Methods and Directed Teaching in Latin (9 cred.; jr., sr.; prereq. 73 and any two of Latin courses numbered between 50 and 100)	IX and 6 hrs. ar.	MW	109UHS	Miss Marlowe
Ed.T.73Af-73Bw- 73Cst†‡	Special Methods and Directed Teaching in Commercial Subjects (9 cred.; sr.; prereq. consent of instructor) Fall—shorthand; winter—typewriting; spring—bookkeeping and junior business training	VIII and 6 hrs. ar.	MW	110UHS	Miss Vander- schaegen
Ed.T.74wt‡	Teachers Course in Journalism (3 cred.; jr., sr.; prereq. Jour. 41 or 51)	VII	MWF	420MurH	Mr. Kildow
Ed.T.88Af-88Bw- 88Cst†‡	Special Methods and Directed Teaching in Speech (9 cred.; prereq. 30 cred. in speech)	IX(f) VIII(s) VIII(f,w) and 6 hrs. ar.	TTh TTh	308F 210Bu	Mr. Gilkinson Miss Smith

MUSIC EDUCATION

Major advisers—Professor Oberg; Instructor Hazel B. Nohavec.

Note—Students following the Music Education Curriculum may elect seven credits in music in addition to the requirements of their curriculum. Five credits in education electives are required. All other electives must be in academic subjects.

Mu.Ed.1	Music Orientation (No cred.; freshmen majoring in music education; no prereq.) (Not offered)				
Mu.Ed.4f-5w-6s†	Applied Instrumental Technique (6 cred.; soph.; no prereq.)	I VII	MTWF MTWF	4Mu(f) 4NMA(w,s)	Mr. Nickerson Mr. Martino

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$1 per credit is charged for this course.

§ Taking the psychological examinations and a C+ average (1.5 honor points per credit) in the major or the subject in which student teaching is done are prerequisite to registration in this course.

COLLEGE OF EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
Mu.Ed.43f-44w-45s	University Farm Music Ensembles—Vocal and Instrumental. For students in Agriculture, Forestry, and Home Economics only. With special reference to music used in extension, farm, home, school, and recreational activities. (3 cred.; all; no prereq.)				
		Ar	Ar	Ar	Mr. Rhodes
Mu.Ed.50A†††	Primary Methods (2 cred.; jr.; no prereq.) Sec. 1 (For Mu.Ed. majors)	III	TTh	4Mu	Mrs. Nohavec
	2 (For nonmajors)	II	TTh	4Mu	Mrs. Nohavec
Mu.Ed.50Bw‡	Intermediate Methods (2 cred.; prereq. Mu.Ed. 50A)	III	TTh	4Mu	Mrs. Nohavec
Mu.Ed.52s‡	Technique of Teaching Appreciation (1 cred.; jr.; prereq. Ed. 51A)	III	TTh	4Mu	Mrs. Nohavec
Mu.Ed.53s‡	High School Methods (3 cred.; jr.; prereq. Ed. 51A and Mu.Ed. 50A,B)	III	MWF	4Mu	Mrs. Nohavec
Mu.Ed.54w‡	Public Performance (3 cred.; jr.; prereq. Ed. 51A)	III	MWF	4Mu	Mrs. Nohavec
Mu.Ed.55f‡	Survey and Evaluation of Vocal Materials and Methods (4 cred.; sr.; prereq. Mu.Ed. 50A, 50B, 53)	VI	MTWF	4Mu	Mrs. Nohavec
Mu.Ed.59w†**	Choral Literature and Conducting (2 cred. for seniors; 1 cred. for fr., soph., jr.)	V	TTh	BuAud	Mrs. Nohavec
Mu.Ed.60f-61w-62s††§	Supervision and Teaching (9 cred.; sr.; prereq. Ed. 51A,B,C and Mu.Ed. 50A,B, 53 and a C+ average in the major)	IX-X		W 4Mu	Mrs. Nohavec
				and 6 hrs. ar.	
Mu.Ed.63f,w,s‡	Band Conducting (2 cred.; jr., sr.; prereq. 4-5-6)	VI	TTh	4NMA	Mr. Martino
Mu.Ed.64s‡	Band Organization (3 cred.; sr.; prereq. 4-5-6)	VI	MWF	4NMA	Mr. Martino
Mu.Ed.65w,s‡	Instrumentation (3 cred.; jr.; prereq. Mu. 4.5)	II	TThS	4Mu	Mr. Boessenroth
Mu.Ed.68s	Conducting of Instrumental Music and Survey of Materials (4 cred.; sr.; prereq. Mu.Ed. 65)	I-II	MWF	5NMA	Mr. Martino
Mu.Ed.101Es	Tests and Measurements in Music (2 cred.; sr., grad.; prereq. permission of instructor)	VI	TTh	4Mu	Mrs. Nohavec
Mu.Ed.150w‡	Advanced Course in the Teaching of Elementary School Music (2 cred.; prereq. Mu.Ed. 50A,B or equiv. and consent of instructor)	IX-X	T	4Mu	Mrs. Nohavec
Mu.Ed.220Ef,w,s	Survey and Evaluation of Research in Music Education (3 cred.; prereq. Mu.Ed. 101E)	Ar	Ar	Ar	Mrs. Nohavec
Mu.Ed.224Ef,w,s	Seminar and Individual Research Problems in Music Education (2 to 6 cred.)	Ar	Ar	Ar	Mrs. Nohavec and others
Mu.Ed.225Ef,w,s††	Advanced Applied Music (2 to 4 cred.; prereq. entrance exam.)	Ar	Ar	Ar	Ar

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$1 per credit is charged for this course.

§ Taking the psychological examinations and a C+ average (1.5 honor points per credit) in the major or the subject in which student teaching is done are prerequisite to registration in this course.

†† One individual lesson per week, 2 credits, \$25; two individual lessons per week, 4 credits, \$50.

** Four credits are required for Mu.Ed. 59. This course should be repeated until all four credits are earned.

NURSING EDUCATION

Major adviser—Professor Katharine Densford.

For other courses in Nursing see the bulletins of the School of Nursing and the Medical School. For courses in Directed Teaching see page 133. For courses in Public Health Nursing see pages 91-94. For specialized curricula in Nursing Education and Public Health Nursing see the College of Education Bulletin.

No.	Title	Hour	Day	Bldg.	Instructor
Nu.Ed.60w,s	Ward Administration (4 cred.; sr. nurse or grad. nurse; no prereq.)	VII VIII	MWF W	Ar	Mrs. Randall
Nu.Ed.62w	Personnel Work in Schools of Nursing (3 cred.; sr. or grad. nurse; no prereq.)	I	MWF	Ar	Miss Gordon
Nu.Ed.63f	Motion Study (2 cred.; sr. or grad. nurse; no prereq.)	VI, VII, VIII	Th	202ME	Mr. Laitala
Nu.Ed.65w,s	Comparative Nursing Procedures (4 cred.; sr. or grad. nurse; prereq. permission of instructor)	VI-VII	TTh	Ar	Miss Harrington and others
Nu.Ed.69f,s	Survey of Conditions and Trends in Nursing (3 cred.; sr., grad.; no prereq.)	IV	MWF	Ar	Miss Densford
Nu.Ed.71f,s	Curriculum Making in Schools of Nursing (3 cred.; sr., grad.; prereq. Ed. 51A-B and Nu. 69)	(f)VI-VII VI	T Th	Ar	Miss Harrington
Nu.Ed.72w	Teaching and Supervision in Schools of Nursing (3 cred.; sr., grad.; no prereq.)	(s)VI VIII IX	MWF TTh Th	Ar	Miss Harrington

PHYSICAL EDUCATION FOR MEN

Major advisers—Professor Keller; Associate Professors Nordly and Piper.

For the program in sports education open to all men students in the University, see page 13.

COURSES IN MAJOR AND MINOR CURRICULA IN PHYSICAL EDUCATION FOR MEN

Phys.Ed.4Af-4Bw-4Cs	Fundamentals of Athletic Sports (1 cred. per qtr.; no prereq.)	VII-VIII	TTh	215CH	Mr. McMillan, Mr. Kelly, Mr. Beise
Phys.Ed.5Af-5Bw-5Cs	Physical Education Activities (3 cred.; no prereq.)	III-IV III	T Th	CH	Mr. Piper
Phys.Ed.6Af-6Bw	Intramural Sports (1 cred. per qtr.; all; no prereq.)	VI	MWF	215CH	Mr. Beise
Phys.Ed.6Cs	Intramural Sports (1 cred.; prereq. ability to swim 100 yds.)	V	MWF	215CH	Mr. Thorpe
Phys.Ed.7Af-7Bw-7Cs	Physical Education Activities (1 cred. per qtr.; soph., jr., sr.)	II-III	TTh	CH Gym	Mr. Piper and others
Phys.Ed.8s	Dual Spring Sports (1 cred.; all; no prereq.)	VII	MWF	215CH	Mr. Smith, Mr. Brain
Phys.Ed.9s	Rhythms (1 cred.; jr., sr.)	II	TThS	Ar	Mr. Piper

COLLEGE OF EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
Phys.Ed.50s	Human Anatomy (4 cred.; soph.; prereq. Zool. 1-2-3 or G.C. 101, 102, 103)	III-IV	MWF	Ar	Mr. Keys and others
Phys.Ed.51f	Mechanics of Movement (3 cred.; jr.; prereq. 50)	II	MWF	206CH	Mr. Osell
Phys.Ed.53f‡, 54w‡,55s‡‡	Methods and Materials in Physical Education (4 cred.; jr.; prereq. 5A-B-C, 6A-B-C, 7A-B-C)	Lect. V(f,w,s) Lab. Ar	Th	206CH	Mr. Piper
Phys.Ed.56w	Nature and Function of Play (2 cred.; jr., sr.; prereq. Psy. 1-2, or equiv.)	VII-VIII	T	Ar	Mr. Keller
Phys.Ed.57s	Operation and Conduct of Play Centers (3 cred.; jr., sr.; prereq. permission of instructor)	VII	MWF	206CH	Ar
Phys.Ed.60s	Prevention and Care of Injuries (2 cred.; jr.)	III	TThS	206CH	Mr. Hunt
Phys.Ed.61f	History of Physical Education (2 cred.; sr.)	I	MWF	206CH	Mr. Keller
Phys.Ed.63s	Organization and Administration of Physical Education (3 cred.; sr.; prereq. 53, 54, 55)	III	MWF	206CH	Mr. Piper
Phys.Ed.67s	Coaching of Athletic Sports (Football) (2 cred.; sr.; prereq. 4B and one year experience on Minnesota squad)	II	TThS	214CH	Dr. Hauser
Phys.Ed.68f	Coaching of Athletic Sports (Basketball) (2 cred.; sr.; prereq. 4A)	VI	MWF	214CH	Mr. MacMillan
Phys.Ed.69s	Coaching of Athletic Sports (Track) (2 cred.; sr.; prereq. 4C)	VII and 2 hrs. ar.	MW	214CH	Mr. Kelly
Phys.Ed.72w	Coaching of Athletic Sports (Baseball) (2 cred.; sr.; prereq. permission of instructor)	VI	MWF	214CH	Mr. MacMillan
Phys.Ed.73f‡, 74w‡,75s‡‡	Directed Teaching (6 cred.; sr.; prereq. 4A-B-C, 5A-B-C, 6A-B-C, 7A-B-C, 53, 54, 55)	V	M	214CH	Mr. Piper
Phys.Ed.101Ew**	Principles of Physical Education (3 cred.; sr., grad.; prereq. 53, 54, 55)	I	MWF	206CH	Mr. Keller
Phys.Ed.103Es**	Physical Examination and Adaptation of Activities (3 cred.; sr., grad.; prereq. 50, 51, Physiol. 50, 51, or equiv.)	VI	MWF	206CH	Dr. Hauser, Mr. Osell
Phys.Ed.133Ef**	Special Administrative Problems in Physical Education in Secondary Schools (3 cred.; sr., grad.; prereq. 63 or equiv.)	I-II and 1 hr. ar.	S	206CH	Mr. Nordly
Phys.Ed.134Ew**	The Secondary School and College Curriculum in Physical Education (3 cred.; sr., grad.; prereq. 63, 101E or equiv.)	I-II and 1 hr. ar.	S	206CH	Mr. Nordly
Phys.Ed.135Es**	Tests and Measurements in Physical Education (3 cred.; sr., grad.; prereq. 10 hrs. in phys. ed. and Ed.Psy. 60 or equiv.)	I-II and 1 hr. ar.	S	206CH	Mr. Keller

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$1 per credit is charged for this course.

§ Passing the qualifying examination in English and a C+ average (1.5 honor points per credit) in the major is prerequisite to registration in this course.

** The designation "E" after a course number over 100 signifies that the course is of graduate level in the College of Education but does not carry credit for Plans A and B in the Graduate School.

No.	Title	Hour	Day	Bldg.	Instructor
Phys.Ed.136Ef**	Leadership in Recreation (3 cred.; sr., grad.; prereq. 56 or equiv. and 10 hrs. in ed. or permission of instructor)	IX-X	T	206CH	Mr. Piper
Phys.Ed.137Es**	Recent Literature and Research in Health Education, Physical Education, and Recreation (3 cred.; grad.; permission of instructor)	IX-X	T	206CH	Mr. Nordly
Phys.Ed.138Ef**	Administration of Physical Education in Colleges and Universities (2 cred.; sr., grad.; prereq. 63 or 133E or equiv.)	IX	Th	206CH	
Phys.Ed.141E**	Administration and Supervision of Public Recreation (3 cred.; jr., sr., grad.)	IX-X	M	206CH	Mr. Keller
Phys.Ed.142E**	Group Leadership in Community Recreation (3 cred.; sr., grad.)	Ar	Ar		Mr. Nordly
Phys.Ed.237E**	Problems in Health Education, Physical Education, and Recreation (2 to 6 cred.; grad.; prereq. 137E and Ed. 206; ar.)	Ar	Ar	Ar	Mr. Nordly

PHYSICAL EDUCATION FOR WOMEN

Major adviser—Associate Professor Gertrude M. Baker.

COURSES IN MAJOR, MINOR, AND GRADUATE CURRICULA IN PHYSICAL EDUCATION FOR WOMEN

Open only to students in the College of Education except by permission of instructor.

Statement of fees—A physical education fee of \$1.75 per quarter is charged for all starred courses, maximum fee per student \$3.50 per quarter. For methods and directed teaching courses a fee of \$1 per credit is charged as indicated in the footnotes.

For program in physical education open to all women students in the University, see pages 14-17.

No.	Title	Hour	Day	Bldg.	Instructor
21Af-Bw- Cs*†††	Elementary Physical Education (6 cred.; no prereq.)				
	Sec. 1 (fall) Individual Sports	VIII	MW	153NGW	Ar
	2 (fall) Team Sports	VII	TTh	60NGW	Ar
	3 (fall) Fundamentals of Rhythm	VI	TTh	153NGW	Ar
	4 (fall) Orientation	VI	W	201NGW	Ar
	5 (winter) Individual Sports	VI-VII	W	Ar	Ar
	6 (winter) Modern Dance	VIII	TTh	153NGW	Ar
	7 (winter) Folk Dancing for Elem. and Sec. Schools	VI	TTh	153NGW	Ar
	8 (winter) Posture and Daily Life Skills	II	MF	153ANGW	Ar
	9 (spring) Individual Sports	VI	TTh	151NGW	Ar
	10 (spring) Officiating Team Sports	VII	TTh	151NGW	Ar
	11 (spring) Aquatics	VIII	TTh	58NGW	Ar
	12 (spring) Modern Dance	IV	MW	153NGW	Ar

* A physical education fee of \$1.75 per quarter is charged for this course.

** The designation "E" after a course number over 100 signifies that the course is of graduate level in the College of Education but does not carry credit for Plans A and B in the Graduate School.

††† Students must pay 50 cents for tennis permit and supply own golf equipment.

COLLEGE OF EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
25f,w	First Aid (1 cred.; no prereq.)	I (fall) II (winter)	TTh	201NGW	Ar
41Af-Bw- Cs*†††	Intermediate Physical Education (9 cred.; prereq. 21A-B-C)				
	Sec. 1 (fall) Individual Sports	III-IV		S	151NGW Ar
	2 (fall) Officiating Team Sports	VII	TTh	151NGW	Ar
	3 (fall) Team Sports	VI	TTh	60NGW	Ar
	4 (fall) Aquatics	VIII	TTh	58NGW	Ar
	5 (fall) Modern Dance	III	MW	151NGW	Ar
	6 (fall) Tumbling and Stunts	I	TTh	153NGW	Ar
	7 (fall) Gymnastics	II	TTh	153NGW	Ar
	8 (winter) Individual Sports	I		S	60NGW Ar
		II		S	153NGW Ar
	9 (winter) Team Sports	VII	TTh	151NGW	Ar
	10 (winter) Team Sports Officiating	VIII	TTh	151NGW	Ar
	11 (winter) Apparatus	I	TTh	153NGW	Ar
	12 (winter) Gymnastics	II	TTh	153NGW	Ar
	13 (spring) Individual Sports	VI	TTh	60NGW	Ar
	14 (spring) Team Sports Officiating	VII	TTh	151NGW	Ar
	15 (spring) Aquatics	VII	MWF	58NGW	Ar
	16 (spring) Ballroom and Country Dance	II	TThS	153NGW	Ar
50s††	General Anatomy (4 cred.; prereq. Zool. 1-2-3)	III, IV	MWF	312 IA	Ar
51f††	Mechanics of Movement (3 cred.; prereq. 50)	VI, VII	TTh	312 IA	Ar
57Aw-Bs†	Technique of Teaching Aquatics (2 cred.; jr.; prereq. 21A-B-C)	III	TThS	58NGW	Miss Starr
	(winter, spring)				
60w	Principles of Play (3 cred.; prereq. Psy. 102)	III	MWF	201NGW	Miss French
61Af-Bw-Cs†	Technique of Teaching Team Sports (3 cred.; jr.; prereq. 41A-B-C)	II	MWF	151NGW	Miss Snell
	(fall, winter, spring)				
63s†	Technique of Teaching Folk Dancing (1 cred.; soph.; prereq. 21A-B-C)	I	MWF	153NGW	Ar
64s†	Technique of Teaching Group Gymnastics (1 cred.; soph.; prereq. 41A-B)	VIII	TTh	153NGW	Miss Snell
65As-Bw†	Technique of Teaching Individual and Dual Sports (2 cred.; soph., jr.; prereq. 21A-B-C)	I (spring) II (winter)	TThS	60NGW	Ar
			TThS	151NGW	Ar
66Aw-Bf*	Advanced Physical Education (1 cred.)				
	Sec. 1 (winter)	III	MW	153NGW	Ar
	2 (fall)	III	TTh	60NGW	Ar
73As-Bw†	Technique of Teaching Rhythm (1½ cred.; 73A, 1 cred.; 73B, ½ cred.; soph., jr.; prereq. 66)	VI (spring) VI (winter)	MW	153NGW	Miss Kratz
			TTh	151NGW	Ar
82f	Principles of Physical Education (3 cred.; sr.; prereq. 65)	II	MWF	201NGW	Miss Starr
83w	Methods and Materials of School Health Education (See Ed.T. 83)				

* A physical education fee of \$1.75 per quarter is charged for this course.

† A fee of \$1 per credit is charged for this course.

†† A fee of \$2 is charged for Courses 50 and 51 whether taken as a whole or a part.

††† Students must pay 50 cents for tennis permit and supply own golf equipment.

No.	Title	Hour	Day	Bldg.	Instructor
84w	Problems in Physical Education (2 cred.; prereq. permission of instructor)	III	TTh	201NGW	Miss Snell
85f	Remedial Activities in Physical Education (3 cred.; sr.; prereq. 51)	III (fall)	TThS	3NGW	Ar
	Lab.	VII (fall)	F	3NGW	
86w	Aspects of School Health Appraisal (3 cred.; sr.; prereq. 51 or permission of instructor)	II	MWF	201NGW	Ar
90Af-Bw- Cst†‡	Student Teaching (8 cred.; sr.; prereq. 65A-B, 60, 61A-B-C, 63, 64, 65)	II (fall and winter)	TThS	Ar	Miss Starr
		IV (spring)	M	Ar	Miss Starr
95s	Administration of Physical Education (3 cred.; sr.; prereq. 60, 81, 82, 83)	II	MWF	201NGW	Miss Baker
111Ef§	An Advanced Course in Methods of Teaching Physical Education (3 cred.; sr., grad.; prereq. undergrad. methods courses, 60 and 82 or equiv.)	IX, X	W	3NGW	Miss Baker
		1 hr. ar.			
112Es§	Supervision of Physical Education (3 cred.; sr., grad.; prereq. teaching experience)	IX, X	W	3NGW	Miss Baker
		1 hr. ar.			
113Ew§	Physical Education in the Elementary Schools (3 cred.; sr., grad.; prereq. 60 and 82 or equiv., and experience teaching elementary grade children)	IX, X	W	3NGW	Miss Baker
		1 hr. ar.			
114Es§	The School Health Education Program (See Ed.C.I. 114)				
116Ew§	Problems in Physical Fitness (3 cred.; sr., grad.; prereq. 82, 83 or equiv.)	III, IV	S	3NGW	Miss French
		1 hr. ar.			

Electives

26s	Advanced Course in First Aid (1 cred.; prereq. 25)	VI	MW	201NGW	Ar
54s*	Camp Leadership (2 cred.; no prereq.)	IV	MW	3NGW	Miss Starr
		1 hr. ar.			
71f*	Applied Physiology (3 cred.; prereq. 51 and Physiol. 51)	I	TThS	201NGW	Ar
		II	S		
79s	Massage and Therapeutic Exercises (2 cred.; prereq. 85)	I	TThS	3NGW	Ar
80s	Principles of Rhythm (2 cred.; prereq. some rhythm experience)	III	TTh	201NGW	Ar

PUBLIC HEALTH

The College of Education offers specialized curricula in Public Health Nursing and Nursing Education and School Health. For curricula see College of Education Bulletin. For class schedule see pages 91-94 in this bulletin.

THEORY AND PRACTICE OF TEACHING

For courses formerly listed in this department, see General Courses, Curriculum and Instruction, and Methods and Directed Teaching.

* A physical education fee of \$1.75 per quarter is charged for this course.

† The entire course including the final examination covering all units must be completed satisfactorily before credit is given for any quarter. Graduates of teachers colleges should consult their advisers before registering for any part of the course.

‡ A fee of \$1 per credit is charged for this course.

§ The designation "E" after a course number over 100 indicates that the course is of graduate level in the College of Education but does not carry credit for Plans A and B in the Graduate School.

¶ Taking the psychological examinations and a C+ average (1.5 honor points per credit) in the major are prerequisite to this course.

COLLEGE OF AGRICULTURE, FORESTRY, AND HOME ECONOMICS

All courses in the College of Agriculture, Forestry, and Home Economics are scheduled on the University Farm campus except those indicated by an asterisk (*).

AGRICULTURAL BIOCHEMISTRY

Freshman and Sophomore Courses

No.	Title	Hour	Day	Bldg.	Instructor
2f,w††	Quantitative Methods (5 cred.; soph., jr., sr.; prereq. Inorg. Chem. 1 and 2 or 4 and 5) (Limited to 32)				
		VI, VII, VIII, IX	MWF	116SnH	Mr. Greenwood and others
4f,w	Introduction to Organic and Biochemistry (5 cred.; soph., jr., sr.; prereq. Inorg. Chem. 1 and 2 or 4 and 5‡) (Limited to 85)				
		II	MTWThF	113SnH	Mr. Greenwood
5a	Plant Biochemistry (5 cred.; soph., jr., sr.; prereq. 4, Soils 4 advised)				
		II	MTWThF	116SnH	Mr. Greenwood
6f	Animal Biochemistry (5 cred.; soph., jr., sr.; prereq. 4, Soils 4 advised)				
		II	MTWThF	116SnH	Ar

Junior and Senior Courses

101f-102w‡	Agricultural Quantitative Analysis (6 cred.; jr., sr.; prereq. 2)	VI, VII, VIII	MWF	208SnH	Mr. Briggs
103s‡	Dairy Chemistry (5 cred.; jr., sr.; prereq. 2, 6)				
	Lect.	VI	MWF	113SnH	Ar
	Lab.	VII, VIII, IX	MWF	208SnH	Ar
108s	Chemistry of Wheat and Wheat Products (3 cred.; jr., sr.; prereq. 5)				
		II	MWF	211SnH	Mr. Geddes
110s‡	Flour Laboratory Methods (3 to 5 cred.; jr., sr.; prereq. 101-102 or equiv.)	VI, VII, VIII, IX	MWF	211SnH	Mr. Geddes, Mr. Merritt
113f-114w- 115s‡	Biochemical Laboratory Methods (6 cred.; jr., sr.; prereq. quant. anal., parallel 119-123)	VI, VII, VIII	TTh	202,208SnH	Mr. Sandstrom and assistant
116w	Advanced Animal Nutrition (3 cred.; jr., sr.; prereq. 6 or Physiol. Chem. 120 advised)	III	TThS	211SnH	Ar, Miss Kennedy
117s‡	Laboratory Problems in Animal Nutrition (3 cred.; jr., sr.; prereq. 116, instructor's permission)	Ar	Ar	314SnH	Ar, Miss Kennedy
118f,w,s‡	Laboratory Problems in Biochemistry (3 or 5 cred.; sr.; prereq. 113-114, 119; or 103 or 110)	Ar	Ar	Ar	Ar
119f	Colloids (3 cred.; sr.; prereq. Zool. or Bot. 9 cred., and Org. Chem. equiv. to 4; 5 or 6 advised)	III	MWF	113SnH	Mr. Briggs

† A laboratory fee of \$5 is required for each quarter of this course. The \$5 card purchased from the cashier's office, University Farm, must be presented before laboratory space will be assigned. A \$5 breakage card against which breakage can be charged must be purchased also.

‡ A laboratory fee of \$2 is required for this course. A \$5 card (from which the \$2 fee will be deducted) is to be purchased from the cashier's office, University Farm, before a laboratory desk will be assigned.

§ By special permission of the student's adviser General College Courses 37A and 37B will be acceptable as prerequisites for home economics students.

No.	Title	Hour	Day	Bldg.	Instructor
120w	Proteins (3 cred.; sr.; prereq. 119)	III	MWF	113SnH	Mr. Sandstrom
121w	Carbohydrates (3 cred.; sr.; prereq. 119)	II	MWF	116SnH	Mr. Geddes
122s	The Lipids and Fats (3 cred.; sr.; prereq. 119)	III	TThS	113SnH	Mr. Briggs
123s	Enzymes (3 cred.; sr.; prereq. 119)	III	MWF	113SnH	Mr. Sandstrom

AGRICULTURAL ECONOMICS

Freshman and Sophomore Courses

1f	Principles of Economics I (3 cred.; soph., jr., sr.; no prereq.) (Limited to 60)	I	MWF	109HH	Mr. Lowe
2w	Principles of Economics II (5 cred.; soph., jr., sr.; prereq. 1) (Limited to 60)	I	MTWThF	109HH	Mr. Lowe
3f,w,s	Principles of Economics (Home Economics) (5 cred.; soph., jr., sr.; no prereq.) (Limited to 60)	II	MTWThF	109HH	Mr. Lowe
7w	Natural Resources (3 cred.; soph., jr., sr.; no prereq.)	III	TThS	109HH	Mr. Dowell
8s	Rural Economics (3 cred.; soph., jr., sr.; prereq. 2 or 3)	III	TThS	210HH	Mr. Jesness
25f,w	Principles of Accounting (4 cred.; soph., jr., sr. in agr., for., and home econ. only) (Limited to 50)	II(f)	MWF	311HH	Mr. Koller
	Lect.	II(w)	TThS	311HH	
	Lab.	VIII, IX	Th	311HH	
30f	Agricultural Prices (3 cred.; soph., jr., sr.; prereq. 2)	II	TThS	312HH	Mr. Waite
40f	Principles of Marketing Organization (3 cred.; soph., jr., sr.; prereq. 2)	I	MWF	210HH	Mr. Cox
47s	Marketing Accounting (4 cred.; soph., jr., sr.; prereq. 25)	IV	MWF	311HH	Mr. Koller
	Lect.	IV	MWF	311HH	Mr. Koller
	Lab.	VIII, IX	F	311HH	

Junior and Senior Courses

50f§	Farm Finance (5 cred.; jr., sr. in agr. and for. only; prereq. 2)	IV	MTWFS	312HH	Mr. Koller
80s§	Farm Accounting (3 cred.; jr., sr.)	I	TThS	312HH	Mr. Engene
90f§	Agricultural Statistics (5 cred.; jr., sr.)	III	TThS	312HH	Mr. Cox
	Lect.	III	TThS	312HH	Mr. Cox
	Lab.	Ar	Ar		
102w	Farm Organization (3 cred.; jr., sr.; prereq. 2) (Limited to 60)	II	TThS	210HH	Mr. Pond
103s	Farm Operation (3 cred.; jr., sr.; prereq. 102) (Limited to 60)	II	TThS	100HH	Mr. Pond
104s	Types of Farming (3 cred.; jr., sr.; prereq. 2)	III	MWF	312HH	Mr. Pond
110f-111w	Economics of Agricultural Production I and II (6 cred.; jr., sr.; prereq. 2)	I	TThS	312HH	Mr. Dowell
126f,s	Economics of Consumption (3 cred.; jr., sr.; prereq. 2 or 3)	I	TThS	100HH	Mr. Waite
131w	Market Prices (3 cred.; jr., sr.; prereq. 30, 40)	III	TThS	312HH	Mr. Waite
135s	Methods of Price Analysis (3 cred.; sr.; prereq. 30, 191)	III	TThS	312HH	Mr. Waite
140f	Marketing Organization: Staples (3 cred.; jr., sr.; prereq. 40)	III	MWF	312HH	Mr. Cox

§ Open to sophomores on petition.

No.	Title	Hour	Day	Bldg.	Instructor
141w	Marketing Organization: Dairy and Poultry Products (3 cred.; jr., sr.; prereq. 40)	II	MWF	312HH	Mr. Jesness
142a	Marketing Organization: Fruits and Vegetables (2 cred.; jr., sr.; prereq. 40)	III	MW	311HH	Mr. Cox
143w	Marketing Organization: Livestock and Meats (3 cred.; jr., sr.; prereq. 40)	III	MWF	312HH	Mr. Dowell
144f	Co-operative Organization (3 cred.; jr., sr.; prereq. 40)	II	TThS	311HH	Mr. Jesness
150s	Advanced Farm Finance (3 cred.; jr., sr.; prereq. 50 or equiv.)	2:30-4:00 p.m.	TTh	312HH	Mr. Koller
170s	Land Economics (3 cred.; jr., sr.; prereq. 110)	1:30-3:00 p.m.	WF	312HH	Mr. Dowell
191w	Advanced Agricultural Statistics (3 cred.; jr., sr.; prereq. 90)	IV	MWF	312HH	Mr. Waite

See also Economics and Business Administration in School of Business Administration section.

AGRICULTURAL EDUCATION

For list of courses in Agricultural Education see courses listed under the College of Education, page 117.

AGRICULTURAL ENGINEERING

Freshman and Sophomore Courses

3a	Mechanical Drawing (3 cred.; no prereq.) (Limited to 60)	VII, VIII	MWF	303En	Mr. Otis
4s	General Woodworking (3 cred.; no prereq.)	I, II	MWF	41,48En	Mr. Christopherson
5f	Farm Structures Laboratory (3 cred.; prof. agr. eng. only; no prereq.)				
	Lect.	I	MW	41En	Mr. Christopherson
	Lab.	II	MW	48En	Mr. Christopherson
		I, II	F		
7s	Buildings (3 cred.; no prereq.)	IV	MWF	305En	Mr. White
11w	Applied Mathematics (5 cred.; high school elementary algebra and plane geometry or their qualitative equiv.) (Limited to 20)	III	MTWThF	105En	Mr. Manson, Mr. Park
12s	Agricultural Machinery (3 cred.; no prereq.) (Sections limited to 45 each)				
	Sec. 1	I	MWF	216En	Mr. Schwantes
	2 (For agr. ed. majors only)	I, II	M	216En	
13s	Gas Engines and Tractors (3 cred.; no prereq.) (Sections limited to 40 each)	VI, VII, VIII	MF	216,37En	Mr. Torrance
15w	Electricity in Agriculture (3 cred.; prereq. 23 or equiv.)				
	Lect.	VI	TTh	101En	Mr. Hustrulid
	Lab.	VII, VIII, IX	Th	5En	Mr. Hustrulid
18s	Agricultural Automotives (4 cred.; prof. agr. eng. only; prereq. Phys. 7)				
	Lect.	VI	TTh	216En	Mr. Torrance,
	Lab.	VII, VIII, IX	TTh	37En	Mr. Strait
19f	Elementary Surveying (3 cred.; prereq. 3, 11 or trigonometry) (Sections limited to 30 each)				
	Lect.	IV	T	105En	Mr. Park
	Lab.	VI, VII, VIII	TTh	305En	Mr. Manson
19s	Elementary Surveying (Same as 19f)				
	Lect.	IV	T	105En	Mr. Park
	Lab.	VII, VIII, IX	TTh	305En	Mr. Manson

No.	Title	Hour	Day	Bldg.	Instructor
20f	Advanced Surveying (3 cred.; prereq. 19) (Limited to 45)	IV	M	105En	Mr. Manson, Mr. Park Mr. Manson, Mr. Park
	Lect.	VII, VIII, IX	M	305En	
20s	Advanced Surveying (Same as 20f)	VI, VII, VIII	W		Mr. Manson, Mr. Park Mr. Manson, Mr. Park
	Lect.	VI	M	105En	
21s	Advanced Surveying (Same as 20f)	VII, VIII, IX	MF	305En	Mr. Manson, Mr. Park Mr. Manson, Mr. Park
	Lect.	VI	M	105En	
21s	Elements of Surveying (5 cred.; prof. agr. eng. only; prereq. Draw. 3 and M.&M. 12)	V	M	105En	Mr. Manson
	Lect.	VI, VII, VIII, IX	MWF	305En	
23w	General Physics (5 cred.; no prereq.) (Lab. sections limited to 20 each) (Not open for credit to students offering one unit of high school physics for entrance)	I	MWF	101En	Mr. Hustrulid
	Lect.	VI, VII, VIII, IX	T	102En	
24f	Agricultural Physics I (4 cred.; prereq. Math. 6 or equiv.) (Lab. sections limited to 16 each)	VI, VII, VIII, IX	W	102En	Mr. Hustrulid
	Lect.	III	MWF	101En	
25w	Agricultural Physics I (4 cred.; prereq. 24)	VI, VII	M	102En	Mr. Hustrulid
	Lect.	VI, VII	F	102En	
28w	Agricultural Physics II (4 cred.; prereq. 24)	I	TThS	101En	Mr. Hustrulid
	Lect.	VI, VII	M	102En	
31w,s	Land Clearing (2 cred.; no prereq.) (Not offered—offered in alternate years)	VI, VII	F	102En	Mr. Hustrulid
	Principles of Drainage (3 cred.; no prereq.)	II(w)	MWF	105En	
32	Principles of Drainage (3 cred.; no prereq.)	I(s)	MWF	105En	Mr. Manson
	Elements of Supplemental Irrigation (2 cred.; no prereq.) (Not offered—offered in alternate years)				
35f,s	Household Physics (5 cred.; no prereq.) (Lab. sections limited to 16 each)	III	TThS	101En	Mr. Hustrulid
	Lect. (f)	I, II	ThS	102En	
37f,w,s	Household Physics (5 cred.; no prereq.) (Lab. sections limited to 16 each)	VI, VII	TTh	102En	Mr. Tyler
	Lect. (f) Sec. 1	I	MWF	101En	
40s	Household Physics (5 cred.; no prereq.) (Lab. sections limited to 16 each)	III	TThS	101En	Mr. Hustrulid
	Lect. (s) Sec. 1	I, II	TTh	102En	
41w	Household Physics (5 cred.; no prereq.) (Lab. sections limited to 16 each)	VI, VII	MF	102En	Mr. Tyler
	Lect. (s) Sec. 1	VI, VII	TTh	102En	
42s†	Household Physics (5 cred.; no prereq.) (Lab. sections limited to 16 each)	VI, VII	TTh	102En	Mr. Tyler
	Lect. (s) Sec. 1	VIII, IX	MF	102En	
43f	Household Physics (5 cred.; no prereq.) (Lab. sections limited to 16 each)	VIII, IX	TTh	102En	Mr. Tyler
	Lect. (s) Sec. 1	VIII, IX	TTh	102En	
37f,w,s	Rural Sanitation and Water Supply (3 cred.; no prereq.) (The spring section for prof. agr. eng. only; prereq. M.&M. 129)	I(f)	TThS	101En	Mr. Tyler
	Rural Sanitation and Water Supply (3 cred.; no prereq.)	I(w)	MWF	103En	
40s	Rural Sanitation and Water Supply (3 cred.; no prereq.)	I(s)	MWF	101En	Mr. Tyler
	Mechanical Training (3 cred.; no prereq.) (Limited to 20)	VI, VII, VIII	TTh	20,106En	
41w	Mechanical Training (3 cred.; no prereq.) (Limited to 20)	I, II	MWF	20,106En	Mr. Dent
	Metal Work (3 cred.; no prereq.) (Limited to 20)	VI, VII, VIII	WF	20,106En	
42s†	Art Metal Work (3 cred.; no prereq.) (Limited to 15)	VI, VII, VIII	WF	20,106En	Mr. Dent
	Mechanical Laboratory (3 cred.; prof. agr. eng. only; no prereq.)	I, II, III, IV	S	20,106En	
43f	Mechanical Laboratory (3 cred.; prof. agr. eng. only; no prereq.)	I, II, III, IV	S	20,106En	Mr. Dent
	Mechanical Laboratory (3 cred.; prof. agr. eng. only; no prereq.)	2 hrs. ar.			

† A course fee of \$3 per quarter is charged for this course.

No.	Title	Hour	Day	Bldg.	Instructor
44s	Advanced Drawing (2 cred.; prereq. Draw. 3 or equiv.)	Draw. 3 or equiv.)			
	Lect.	VI	M	303En	Mr. Otis
	Lab.	VII, VIII	M		
		2 hrs. ar.			
<i>Junior and Senior Courses</i>					
51w	Soil Moisture Relations (5 cred.; jr. and sr. prof. agr. eng. only; prereq. 21 or parallel, Soils 9, M.&M. 129) (Not offered—offered in alternate years)				
52f	Elements of Farm Machinery (3 cred.; prof. agr. eng. only; prereq. M.&M. 26)				
	Lect.	VI	TTh	216En	Mr. Schwantes
	Lab.	VII, VIII, IX	Th	49En	
53s	Farm Structures (3 cred.; prof. agr. eng. only; prereq. 5, Draw. 3 or equiv.)				
	Lect.	II	TS	305En	Mr. White
	Lab.	III, IV	TS	305En	
67f	Advanced Farm Structures Design (3 cred.; prof. agr. eng. only; prereq. 5, 53 M.&M. 128)				
	Lect.	I	TTh	305En	Mr. White,
	Lab.	II	TTh	305En	Mr. Otis
		I, II	S	305En	
70f	Dairy Engineering (3 cred.; jr., sr.; prereq. 24)				
		I	MWF	105En	Mr. Strait
71f	Design and Economics of Agricultural Machinery (3 cred.; prof. agr. eng. only; prereq. 18, 52, M.E. 27)				
	Lect.	VI	M	105En	Mr. Schwantes,
		VII	F		Mr. Strait
	Lab.	VII, VIII, IX	M	49,105En	
72s	Applied Electricity (3 cred.; jr., sr., prof. agr. eng. only; prereq. Phys. 9, or 43, 44) (Not offered—offered in alternate years)				
73s	Steam Boilers and Heat Engines (3 cred.; prof. agr. eng. only; prereq. 18 and M.E. 31) (Not offered—offered in alternate years)				
101f,102w,103s	Advanced Problems in Soil Moisture Regulation (2 to 6 cred. per qtr.; sr.; prereq. 51)				
		Ar	Ar	Ar	Mr. Manson,
					Mr. Park
104f	The Soil Moisture Relation in Agriculture (3 cred.; not open to engineers; prereq. 9 cred. in agr. eng. including phys.)				
		Ar	Ar	105En	Mr. Manson
111f-112w-113s	Farm Building Problems (2 to 6 cred. per qtr.; sr.; prereq. 67)				
		Ar	Ar	305En	Mr. White,
					Mr. Christopherson,
					Mr. Otis
114w	Buildings, Equipment, Materials and Methods of Construction (3 cred.; not open to engineers; prereq. 9 cred. in agr. eng. including Agr. Eng. 3 and 4 or equiv.)				
		Ar	Ar	305En	Mr. White,
					Mr. Christopherson,
					Mr. Otis
121f,122w,123s	Farm Power and Machinery Problems (2 to 6 cred. per qtr.; jr., sr.; prereq. 126)				
		Ar	Ar	Ar	Mr. Schwantes,
					Mr. Hustrulid
124s	Agricultural Machinery and Mechanical Power Management (3 cred.; not open to engineers; prereq. 9 cred. in agr. eng. including phys. and Agr. Eng. 12)				
		Ar	Ar	105En	Mr. Schwantes
126w	Selection and Management of Agricultural Machinery (3 cred.; jr., sr.; prereq. 18, 71, Agr. Econ. 102)				
	Lect.	III	MW	105En	Mr. Schwantes
	Lab.	3 hrs. ar.			

AGRONOMY AND PLANT GENETICS

Freshman and Sophomore Courses

No.	Title	Hour	Day	Bldg.	Instructor
1f,s	General Farm Crops (3 cred.; no prereq.)	IV	MWF	202Ag	Mr. Wilson
21w	Grain Crops (4 cred.; soph., jr., sr.; prereq. 1)	VI	MWF	202Ag	Mr. Wilson
	Lect.	VII	MWF	104Ag	Mr. Wilson
22s	Grain and Hay Grading (3 cred.; soph., jr., sr.; prereq. 1)	I, II	MWF	201Ag	Mr. Schmid
23f	Forage Crops (4 cred.; soph., jr., sr.; prereq. 1)	VI, VII	MWF	202Ag	Mr. Army
31f,w	Principles of Genetics (4 cred.; soph., jr., sr.)	I	TThS	202Ag	Mr. Henderson
	Lect.	Ar	Ar	Ar	Mr. Henderson
	Lab.				

Junior and Senior Courses

124s	Problems in Farm Crops (3 cred.; jr., sr.; prereq. 1, 31, and at least two courses from 21, 23, 132, 134. Seniors and special students may register in course with approval of instructor)				
		III	MWF	101Ag	Mr. Wilson
126f	Crop Judging (4 cred.; jr., sr.; prereq. 22)	VI, VII	MWF	201Ag	Mr. Schmid
132w	Farm Crops Plant Breeding (4 cred.; jr., sr.; prereq. 31)	VI, VII, VIII	TTh	101Ag	Mr. Rinke
133s	Pasture Crops and Management (4 cred.; jr., sr.; prereq. 23)	VI, VII	MWF	202Ag	Mr. Army
134s	Seminar in Agronomy (2 cred.; sr.; prereq. 9 cred.)	Ar	Ar	408Ag	Staff

ANIMAL AND POULTRY HUSBANDRY

ANIMAL HUSBANDRY

Freshman and Sophomore Courses

1f,w,s	Livestock Production (4 cred.; no prereq.) (Limited to 65)	I, II(f,s)	MWF	CSt	Mr. Harvey
		I, II(w)	TThS	CSt	Mr. Harvey
3f-4w	Breeds of Livestock (6 cred.; soph., jr., sr.; prereq. 1)	III, IV	TS	WSt	Mr. Ferrin,
		III	Th		Mr. Anderson,
					Mr. Harvey
5s	Livestock Judging (3 cred.; soph., jr., sr.; prereq. 3-4)	III, IV	MWF	CSt	Mr. Harvey

Junior and Senior Courses

51w	Meat Selection (3 cred.; jr., sr.; prereq. 1)	VI, VII, VIII	WF	MSh	Mr. Anderson
52s	Meats (3 cred.; jr., sr.; prereq. 1, 51)	VI, VII, VIII	TTh	MSh	Mr. Anderson
53f	Advanced Meats (3 cred.; jr., sr.; prereq. 52)	VI, VII, VIII	TTh	MSh	Mr. Anderson
54w	Utilization of Meats (3 cred.; jr., sr. home econ. students; no prereq.)	III	ThS	MSh	Mr. Anderson
		III, IV	T		
56f-57w	Livestock Feeding (6 cred.; jr., sr.; prereq. 1)	III	MWF	3St	Mr. Ferrin
58f	Market Classes and Marketing of Livestock (3 cred.; jr., sr.; prereq. 3-4)	II	TThS	3St	Mr. Peters
101f	Advanced Stock Judging (3 cred.; jr., sr.; prereq. 5)	VI, VII	MWF	CSt	Mr. Harvey

AGRICULTURE, FORESTRY, AND HOME ECONOMICS

No.	Title	Hour	Day	Bldg.	Instructor
107s	Meat Problems (3 cred.; jr., sr.; prereq. 53)				
	Lect.	IV	TS	MSh	Mr. Anderson
	Lab.	VI, VII, VIII	F	MSh	
108s	Seminar (3 cred.; jr., sr.; prereq. 3-4)	II	TThS	3St	Mr. Peters
112w	Animal Breeding (3 cred.; jr., sr.; prereq. Agron. 31)	IV	MWF	3St	Mr. Winters
113s	Livestock Management (3 cred.; jr., sr.; prereq. 3-4)	III	MWF	3St	Mr. Peters
116f	Embryology of Farm Animals (3 cred.; jr., sr., grad.; prereq. 112 or equiv. and approval of instructor)	IV	MWF	3St	Mr. Green

POULTRY HUSBANDRY

Freshman and Sophomore Courses

1w	Poultry Production (4 cred.; soph.; no prereq.)	IV	MTWF	ESt	Mr. Sloan
2w	Poultry Breeds, Varieties, and Culling (3 cred.; prereq. 1 or parallel)	VII, VIII	TTh	WSt	Mr. Canfield

Junior and Senior Courses

50f,w,s	Poultry Problems (2 to 6 cred.; jr., sr.; prereq. 6 cred. in poultry husb.)	Ar	Ar	Ar	Mr. Sloan
51s	Incubation, Brooding, and Breeding (4 cred.; jr., sr.; prereq. 1, Agron. 31)	III	MWF	WSt	Mr. Canfield
	Lect.	III	MWF	WSt	Mr. Canfield
	Lab.	1 hr. ar.			
52f	Poultry Judging and Marketing (3 cred.; jr., sr.; prereq. 2)	VII, VIII	TTh	WSt	Mr. Canfield
103f	Poultry Feeding and Management (4 cred.; jr., sr.; prereq. 1, Agr. Biochem. 4)	IV	MTWF	ESt	Mr. Sloan
104f	Seminar (2 cred.; sr.; prereq. 9 cred. in poultry husb. including 51s, 103f or equiv.)	Ar	Ar	Ar	Mr. Sloan

DAIRY HUSBANDRY

Freshman and Sophomore Courses

1f,s	Elements of Dairying (3 cred.; prereq. entrance cred. in chem. or Inorg. Chem. 1 or 9) (Limited to 90)	III	MWF	100HH	Mr. Combs
2w	Dairy Bacteriology (3 or 5 cred.; 3 cred. for lect., 2 cred. for lab.; soph., jr., sr.; prereq. Bact. 53) (Lecture taken separately only on permission of instructor)	VI	MWF	210HH	Mr. Slatter
	Lect.	VI	MWF	210HH	Mr. Slatter
	Lab.	VII-VIII	MWF	212HH	Mr. Slatter
3f	Testing Dairy Products (2 cred.; prereq. 1)	VII, VIII	MW	212HH	Mr. Slatter
4s	Dairy Products Practice (3 cred.; soph., jr., sr.; prereq. 1)	Ar	Ar	Ar	Mr. Combs
9s	Dairy Cattle Judging (1 cred.; soph., jr., sr.; no prereq.)	VI, VII, VIII	F	DB	Mr. Gilmore
10s	Dairy Products Judging (1 cred.; soph., jr., sr.; prereq. 1)	Ar	Ar	20HH	Mr. Coulter
20s	Household Microbiology (4 cred.; 3rd qtr. fresh., soph., jr., sr.; prereq. approval of adviser and permission of instructor)	VI	MF	100HH	Mr. Slatter
		VI, VII	W		

Junior and Senior Courses

51s	Market Milk (3 cred.; jr., sr.; prereq. 1, 2)	IV	MW	210HH	Mr. Slatter
		VI, VII, VIII	Th		

No.	Title	Hour	Day	Bldg.	Instructor
101f	Milk Production (5 cred.; jr., sr.; prereq. 1)	IV	MTWFS	210HH	Mr. Fitch
103w	Dairy Stock Feeding (3 cred.; sr.; prereq. 101, An. Husb. 56)	II	TThS	312HH	Mr. Fitch
104f	Dairy Stock Selection (2 cred.; jr., sr.; prereq. 9, 101 or parallel)	VI	TTh	210HH	Mr. Gilmore
105f	Seminar I (1 cred.; sr.; prereq. 3 courses in dairy husb.)	Ar	Ar	214HH	Mr. Fitch
106w	Seminar II (1 cred.; sr.; prereq. 105)	Ar	Ar	214HH	Mr. Fitch
110w	Dairy Products: Ice Cream and Frozen Desserts (3 cred.; jr., sr.; prereq. 1, 3)	IV	TS	210HH	Mr. Combs, Mr. Coulter
111f	Dairy Products: Butter (3 cred.; jr., sr.; prereq. 1, 2, 3)	VI, VII, VIII	T		Mr. Coulter
112s	Dairy Products: Cheese (3 cred.; jr., sr.; prereq. 1, 2, 3)	VI	MW	210HH	Mr. Combs, Mr. Coulter
112s	Dairy Products: Cheese (3 cred.; jr., sr.; prereq. 1, 2, 3)	VI, VII, VIII	F		Mr. Coulter
113s	Technical Control (3 cred.; sr.; prereq. 2, 111 or 112)	IV	TS	210HH	Mr. Combs
113s	Technical Control (3 cred.; sr.; prereq. 2, 111 or 112)	VI, VII, VIII	T	210HH	Mr. Coulter
113s	Technical Control (3 cred.; sr.; prereq. 2, 111 or 112)	I, II, III	TTh	102HH	Mr. Coulter, Mr. Slatter
114w	Milk By-Products (3 cred.; jr., sr.; prereq. 1, 3)	I	TTh	210HH	Mr. Coulter
114w	Milk By-Products (3 cred.; jr., sr.; prereq. 1, 3)	VI, VII, VIII	TTh	24HH	
115s	Advanced Dairy Bacteriology (3 cred.; sr.; prereq. 2, 111 or 112)	Ar	Ar	212HH	Mr. Slatter
116s	Milk Secretion (3 cred.; sr.; prereq. physiol. 9 cred. and Agr. Biochem. 103)	I	MWF	214HH	Mr. Petersen
117s	Dairy Cattle Breeding (3 cred.; jr., sr.; prereq. 101, 104, Agron. 31)	Ar	Ar Ar		Mr. Petersen

For course in Dairy Chemistry see Agricultural Biochemistry 103, page 142.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

Freshman and Sophomore Courses

5f,w,s	Economic Entomology (5 cred.; soph., jr., sr.; prereq. Zool. 14-15 or equiv.) (Section limited to 36)	VI, VII, VIII	MWF	301,302Ad	Mr. Granovsky Mr. Mickel
13su	Field Zoology (1 cred.; no prereq.)	Given at Itasca Park			
14f,s-15w-16s	Principles of Beekeeping (2 to 6 cred.; no prereq.)	IV	MF	307Ad	Mr. Tanquary
14f-15w-16s	Principles of Beekeeping (2 to 6 cred.; no prereq.)	III	MF		
17f,s-18w-19s	Beekeeping Practice (1 to 3 cred.; prereq. 14-15 or parallel)	II, III, IV	W	307Ad	Mr. Tanquary, Mr. Haydak
20f,w,s	Advanced Beekeeping (2 to 6 cred.; prereq. 14 to 19 and 5 cred. in ent.)	Ar	Ar	Ar	Mr. Tanquary

Junior and Senior Courses

51f*‡§	Introductory Parasitology (5 cred.; jr., sr.; prereq. Zool. 14-15 or equiv.) (Sections limited. Written permission must be obtained from the Junior College office, 106 Folwell Hall)	VI, VII, VIII	MWF	208Z	Mr. Cuckler
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* Offered on the Minneapolis campus.

‡ A fee of \$1 per quarter is charged for this course.

§ Open to sophomores on petition.

No.	Title	Hour	Day	Bldg.	Instructor
52w*‡	Introductory Entomology (5 cred.; jr., sr.; prereq. Zool. 14-15 or equiv.) (Laboratory limited to 26)				
	Lect.	VI	MWF	211Z	Mr. Mickel
	Lab.	VII, VIII	MWF	402Z	
55f,su	Entomological Techniques (9 hrs. lab.; 3 cred.; jr., sr.; ar.)				Mr. Mickel
56w	Forest Entomology (5 cred.; jr., sr.; prereq. Zool. 14-15 or equiv.)				
		VI, VII, VIII	MWF	307Ad	Mr. Hodson
64w	Economic Vertebrate Zoology (3 cred.; jr., sr.; prereq. Zool. 1-2-3)				
		I	TThS	100Ad	Mr. Swanson
114s	Apiculture (3 cred.; jr., sr.; prereq. 9 cred. in ent.)				
		I	MW	307Ad	Mr. Tanquary, Mr. Haydak
		2 hrs. ar.			
117f*‡-118w‡- 119s*‡	Animal Ecology (9 cred.; jr., sr.; prereq. 15 cred. in zool. or ent.)				
		VI, VII, VIII	TTh	211Z(f,s) 301AdUF(w)	Mr. Eddy, Mr. Hodson
120s	General Ecology of Insects (3 cred.; jr., sr.; alternative to 119s, or both may be taken; prereq. 117f-118w)				
		VI, VII, VIII	TTh	307Ad	Mr. Hodson
121f‡	Ichthyology (3 cred.; jr., sr.; prereq. 15 cred. in zool. or ent.)				
	Lect.	VIII, IX	F	211Z	Mr. Eddy
	Lab.	Ar	Ar	Ar	
125f‡-126w‡- 127s*‡	Advanced General Entomology (9 cred.; jr., sr.; prereq. 15 cred. in zool. or ent.)				
	Lect.	I	TTh	211Z	Mr. Mickel
	Lab.	I, II, III	S	402Z	
141f-142w	Insects in Relation to Plant Diseases (6 cred.; jr., sr.; prereq. 8 cred. in ent. or plant path.)				
		I, II	MWF	302Ad	Mr. J. J. Christensen, Mr. Granovsky
144f‡-145w‡- 146s*‡	Animal Parasites and Parasitism (3 to 9 cred.; jr., sr.; prereq. Zool. 9 cred.)				
		VI, VII, VIII	WF	208Z	Mr. Cuckler
150s	Introduction to Aphidology (3 cred.)				
		Ar	Ar	Ar	Mr. Granovsky
161f	Waterfowl and Upland Game Birds (3 cred.; jr., sr.; prereq. Zool. 46-47 or equiv.)				
		III, IV	TS	100Ad	Mr. Swanson
		III	Th		
163f	Mammalogy (4 cred.; jr., sr.; prereq. Zool. 22)				
	Lect.	IV	MWF	100Ad	Mr. Swanson
	Lab.	Ar	Ar		
165w	Wildlife Management (3 cred.; jr., sr.; prereq. Zool. 1-2-3 plus 10 cred. in zool. or forestry)				
		I	MWF	100Ad	Mr. Swanson
166s	Methods in Wildlife Management (3 cred.; jr., sr.; prereq. 163, 165)				
		VI, VII, VIII	TTh	100Ad	Mr. Swanson
167s	Techniques in Forest Wildlife Management (3 cred.; sr.; prereq. Ent. 165)				
		Given at Cloquet			Mr. Swanson
175f	Insecticides and Their Action (4 cred.; sr.; prereq. inorg. and org. chem.)				
		III	MWF	302Ad	Mr. Shepard
		Lab. hrs. ar.			
176w	Advanced Economic Entomology (3 cred.; sr.; prereq. 5 or 56, Zool. 117-118-119 or equiv.)				
		III	MWF	302Ad	Ar

* Offered on the Minneapolis campus.

‡ A fee of \$1 per quarter is charged for this course.

§ Open to sophomores on petition.

¶ Note that in the winter quarter this course is offered at the University Farm.

No.	Title	Hour	Day	Bldg.	Instructor
197f,w,s,su	Introduction to Research (5 or more cred.; sr.; prereq. work as prescribed by the division)	Ar	Ar	Ar	Mr. Mickel, Mr. Tanquary, Mr. Granovsky, Mr. Hodson, Mr. Shepard, Mr. Swanson

FORESTRY

Freshman and Sophomore Courses

1f	General Forestry (3 cred.; no prereq.)	III	TThS	100GH	Mr. Cheyney
2su	Field Dendrology (1 cred.; no prereq.)	Given at Itasca Park			Mr. Bensend
3w	Dendrology (3 cred.; no prereq.)	III	TThS	100GH	Mr. Schmitz
4s	Dendrology (4 cred.; no prereq.)	II	MWF	100GH	Mr. Schmitz
	Lect.	VI-VII-VIII	T	Ar	Mr. Rees
	Lab. Sec. 1	VI-VII-VIII	Th	Ar	Mr. Rees
	2	VI-VII-VIII	Th	Ar	Mr. Rees
5su	Field Silviculture (2 cred.; no prereq.)	Given at Itasca Park			Mr. Cheyney
6su	Field Mensuration (2 cred.; no prereq.)	Given at Itasca Park			Mr. Brown
7f-8w-9s	Forest Mensuration (9 cred.; all; prereq. 6, Math. 1 and 6)	IV	MW	100GH	Mr. Brown
	Lect.	VI, VII, VIII	M	206GH	
	Lab. Sec. 1	II, III, IV	S	206GH	
	2	II, III, IV	S	206GH	
10w	Farm Forestry (3 cred.; not open to students majoring in forestry; no prereq.)	VI	MWF	100GH	Mr. Bensend
11su	Camp Management (1 cred.; no prereq.)	Given at Itasca Park			Mr. Brown
20w	Grazing (3 cred.; soph., jr., sr.; no prereq.)	II	TThS	203GH	Mr. Allison
49s	House and Furniture Woods (2 cred.; soph., jr., sr.; not open to students majoring in forestry; no prereq.)	III, IV	TS	211GH	Mr. Rees

Junior and Senior Courses

53f-54w	Wood Structure and Identification (6 cred.; jr., sr.; prereq. 3, 4)	VI, VII, VIII	WF	211GH	Mr. Rees
56s	Forest Products (3 cred.; jr., sr.; no prereq.)	V	MWF	203GH	Mr. Kaufert
57f	Wood Utilization (3 cred.; sr.; prereq. 53-54)	II	MWF	203GH	Mr. Kaufert
58w	Lumber Merchandising and Grading (3 cred.; sr.; prereq. 53-54)	III	TThS	201GH	Mr. Kaufert
101w	Advanced Dendrology (3 cred.; jr., sr.; prereq. 3, 4)	Ar	Ar	Ar	Mr. Rees
111f-112w	Advanced Forest Mensuration (6 cred.; sr.; prereq. 9)	VI, VII, VIII, IX	T	206GH	Mr. Brown
111w-112s	Lect. } 111f,w Lab. } 112w,s	VI, VII, VIII, IX	Th	206GH	
113f	Wood Pulp and Paper (3 cred.; jr., sr.)	III	MWF	201GH	Mr. Kaufert
114f	Mechanical and Physical Properties of Wood (3 cred.; jr., sr.; prereq. 53-54, Math. 7)	I	TThS	201GH	Mr. Rees
115w-116s	Mechanical and Physical Properties of Wood (6 cred.; jr., sr.; prereq. 114)	I, II	TThS	3GH	Mr. Rees
	115w	I, II	TThS	3GH	Mr. Rees
	116s	I, II	MWF	3GH	Mr. Rees

No.	Title	Hour	Day	Bldg.	Instructor
119s	Advanced Wood Structure I (4 cred.; sr.; prereq. 53-54)				
	Lect.	IX	M	209GH	Mr. Kaufert
	Lab.	VI, VII, VIII	MWF	209GH	
125s	Wood Preservation (3 cred.; jr., sr.; prereq. 53-54)				
		III	MWF	201GH	Mr. Kaufert
126f	Silvics (3 cred.; postgrad.; no prereq.)				
		III	MWF	203GH	Mr. Cheyney
127w	Silviculture (3 cred.; postgrad.)				
		II	MWF	203GH	Mr. Cheyney
128s	Silviculture Laboratory (6 cred.; sr.)				
		Given at Cloquet			Mr. Cheyney
129f,w,s	American Silvicultural Practice (3 cred.; postgrad.; prereq. 126 and 127)				
		Ar	Ar	Ar	Mr. Cheyney
130f	Forest Valuation (5 cred.; postgrad.)				
		I	MTWThF	203GH	Mr. Allison
131w	Forest Policy and Administration (5 cred.; postgrad.)				
		IV	MTWFS	203GH	Mr. Allison
132s	Forest Regulation Laboratory (6 cred.; sr.)				
		Given at Cloquet			Mr. Allison
136f	Forest Economics (3 cred.; jr., sr.; prereq. Agr. Econ. 2)				
		II	MWF	201GH	Mr. Allison
137w	Seeding and Planting (3 cred.; jr., sr.)				
		III	TThS	203GH	Mr. Cheyney
140f	Forest Working Plans (3 cred.; postgrad.; prereq. 128, 132)				
		III	TThS	201GH	Mr. Allison
141w	Principles of Silvics (3 cred.; postgrad.; prereq. 126)				
		III	MWF	Ar	Mr. Cheyney
142s	Wood Chemistry (3 cred.; jr., sr.; prereq. Org. Chem. 52)				
		II	MWF	201GH	Mr. Kaufert
143f	Forest Recreation (3 cred.; jr., sr.)				
		IV	MWF	201GH	Mr. Cheyney
144s	Forage and Browse Plants (3 cred.; jr., sr., grad.; prereq. Bot. 113 and P.P. 7)				
		Ar	Ar	Ar	Mr. Benseid
151f,w	Logging (3 cred.; jr., sr.)				
		IV	MWF	203GH(f)	Mr. Weinstein
				201GH(w)	
152s	Wood Seasoning (3 cred.; jr., sr.; prereq. 53-54)				
		I	TThS	201GH	Mr. Rees
155w	Forest Protection (3 cred.; jr., sr.)				
		III	MWF	203GH	Mr. Weinstein
220-221-222	Major Report (2 cred. per qtr.; grad.) (Not offered)				
223f-224w-225s	Literature Seminar (1 cred. per qtr.; grad.)				
		4:00-6:00 p.m.	W	209GH	Mr. Schmitz

HOME ECONOMICS

Courses offered by the Department of Home Economics are open to students registered in colleges on the Minneapolis campus as indicated below: Home Economics 1, 2, 10, 20, 30, 31, 34, 56A-56B, 120, provided student reports on his registration dates to Room 106, Folwell Hall, for permission. The number of permissions which can be given is limited. For the convenience of students on the Minneapolis campus, a tally is kept in Room 106, Folwell Hall.

Home Economics 3, 4, 21, 22, 23, 24, 25, 26, 27, 40, 50, 53, 61, 64, 75, 85, 102, 107, 115, 121, 122, 125, 170, 171, 173, 179, 180, 186 are open provided student reports to the office of admissions and records, Room 203d, Administration Building, University Farm, for permission on the following registration dates: September 28, 29 for fall, January 2 for winter, and March 31 and April 2 for spring quarter.

Other courses are not open to Minneapolis campus students. Students registered in the College of Science, Literature, and the Arts should read the statement about Home Economics courses on page 59 of this bulletin.

Freshman and Sophomore Courses

No.	Title	Hour	Day	Bldg.	Instructor
1f	Choice and Care of Clothing (4 cred.; fr.; not open to seniors; not open to students having had Gen. Coll. 15A; no prereq.) (Limited to 50)	III	MTWTh	313HE	Miss Birong
1w	Choice and Care of Clothing (Same as 1f) (Limited to 50)	III	MTWTh	313HE	Miss Brew
1s	Choice and Care of Clothing (Same as 1f) (Limited to 50)	II	MTWTh	313HE	Miss Brew
2f	Introduction to Textiles (3 cred.; for S.L.&A., Bus. Adm., and Art Ed.; no prereq. Written permission must be obtained from the Junior College office, 106 Folwell Hall) (Limited to 30)	VI, VII	MWF	307HE	Miss Phelps
3f	Clothing Construction A (3 cred.; fr., soph.; prereq. 1) (Sections limited to 20 each)	VI, VII	MWF	304HE	Miss Birong
	Sec. 1	VI, VII	MWF	304HE	Miss Birong
	2	VI, VII, VIII	TTh	305HE	Miss Gorham
3w	Clothing Construction A (Same as 3f) (Sections limited to 20 each)	III, IV	MWF	304HE	Miss Gorham
	Sec. 1	III, IV	MWF	304HE	Miss Gorham
	2	I, II	TThS	304HE	Miss Birong
3s	Clothing Construction A (Same as 3f) (Sections limited to 20 each)	VI, VII	MWF	304HE	Miss Gorham
	Sec. 1	VI, VII	MWF	304HE	Miss Gorham
	2	VI, VII, VIII	TTh	304HE	Miss Birong
4f*	Clothing Construction B (3 cred.; soph., jr.; prereq. 3) (Sections limited to 20 each)	III, IV	MWF	305HE	Miss Gorham
	Sec. 1	III, IV	MWF	305HE	Miss Gorham
	2	VI, VII, VIII	TTh	304HE	Miss Birong
4w*	Clothing Construction B (Same as 4f) (Sections limited to 20 each)	III, IV	MWF	305HE	Miss Birong
	Sec. 1	III, IV	MWF	305HE	Miss Birong
	2	VI, VII, VIII	TTh	305HE	Miss Gorham
4s*	Clothing Construction B (Same as 4f) (Sections limited to 20)	VI, VII, VIII	TTh	305HE	Miss Gorham
6f,w,s	Institution Experience (3 cred.; no prereq. fr.; each section limited to 3. Institution management majors, consent of instructor)	I, II, III	MWF	Cafeteria	Miss Dunning
	Sec. 1	I, II, III	MWF	Cafeteria	Miss Dunning
	2	III, IV, V	MWF	Cafeteria	Miss Dunning
	3	VI, VII, VIII	MWF	Cafeteria	Miss Dunning
	4	I, II, III	TThS	Cafeteria	Miss Dunning
	5	III, IV, V	TThS	Cafeteria	Miss Dunning
10f	Introduction to Home Economics (2 cred.; 1st qtr. fr. only; no prereq.)	II	TTh	203HE	Miss McNeal and others
17f,w,s	Personal and Family Living (3 cred.; fr., soph., jr., sr.; no prereq.) (Sections limited to 40)	III(f,s)	TThS	213HE	Miss Studley
	Sec. 1	III(f,s)	TThS	213HE	Miss Studley
	2	II(w)	TThS	213HE	Miss Studley
		IV(f,w,s)	MWF	213HE	Miss Studley
20f,w	Introduction to Related Art (4 cred.; fr.; not open to seniors; no prereq.) (Limited to 50)	III	MTWTh	203HE	Miss V. Goldstein
20s	Introduction to Related Art (Same as 20f,w) (Sections limited to 50 each)	II	MTWTh	203HE	Ar
	Sec. 1	II	MTWTh	203HE	Ar
	2	IV	MTWF	203HE	Miss Segolson
21f	Color and Design I (3 cred.; prereq. 20) (Sections limited to 24 each)	I, II	MWF	402HE	Ar
	Sec. 1	I, II	MWF	402HE	Ar
	2	I, II	TThS	402HE	Miss Paulson
21w	Color and Design I (Same as 21f) (Sections limited to 24 each)	VI, VII	MWF	402HE	Miss Paulson
	Sec. 1	VI, VII	MWF	402HE	Miss Paulson
	2	VI, VII, VIII	TTh	402HE	Miss Paulson
21s	Color and Design I (Same as 21f) (Limited to 24)	I, II	MWF	402HE	Miss Paulson

* Home practice in clothing construction is required as prerequisite for Course 4 (or Course 53 for teachers).

No.	Title	Hour	Day	Bldg.	Instructor
22f	Color and Design II (3 cred.; all; prereq. H.E. 1, 20) (Sections limited to 24 each)				
	Sec. 1	VI, VII	MWF	402HE	Ar
	2	VI, VII	MWF	401HE	Miss Paulson
22w	Color and Design II (Same as 22f) (Sections limited to 24 each)				
	Sec. 1	III, IV	MWF	402HE	Miss Paulson
	2	VI, VII, VIII	TTh	401HE	Ar
22s	Color and Design II (Same as 22f) (Sections limited to 24 each)				
	Sec. 1	VI, VII	MWF	112HE	Miss Paulson
	2	VI, VII, VIII	TTh	402HE	Miss Segolson
23w	Advanced Design (3 cred.; soph., jr.; prereq. 21 or 22) (Limited to 24)	I, II	TTh	401HE	Ar
24s	Problems in Home Planning and Furnishing (5 cred.; soph.; prereq. 20) (Limited to 24)				
	Sec. 1	III, IV	MTWF	401HE	Miss V. Goldstein
	2	VI, VII, VIII	MW	401HE	Miss Segolson
		VI, VII	F		
25f,s	Design Applied to Crafts (3 cred.; prereq. 21 or 22) (Limited to 24)	III, IV	TS(s)	110HE	Ar
		III	Th(s)		
		I-II	MWF(f)	401HE	Ar
27f	Related Art Problems (3 cred.; soph., jr., sr.; prereq. 21) (Limited to 24) (Formerly 55)	I, II	TThS	401HE	Ar
27w	Related Art Problems (Same as 27f) (Sections limited to 24 each)				
	Sec. 1	I, II	MWF	401HE	Miss V. Goldstein
	2	VI, VII	MWF	401HE	Miss H. Goldstein
27s	Related Art Problems (Same as 27f) (Limited to 24)	VI, VII, VIII	TTh	401HE	Miss Segolson
30s*§	Introduction to Nutrition (2 cred.; not open to home econ. students; no prereq.)	VI	TTh	200Pt	Miss Biester
31f	Introduction to Nutrition (3 cred.; fr.; not open to seniors; no prereq.) (Sections limited to 60 each)				
	Sec. 1	I	MWF	213HE	Miss Zander
	2	II	MWF	213HE	Miss Biester
31w	Introduction to Nutrition (Same as 31f) (Limited to 60)	IV	MWF	213HE	Miss Zander
31s	Introduction to Nutrition (Same as 31f) (Limited to 60)	VI	MWF	203HE	Miss Donelson
33f	Nutrition I (4 cred.; soph., jr., sr.; prereq. Agr. Biochem. 4, Physiol. 4) (Limited to 24)				
	Lect.	III	MWF	211,	
				213HE	Miss Donelson
	Lab.	VI, VII, VIII	T		
34f	Nutrition Problems (4 cred.; 3rd qtr. soph., jr., sr.; prereq. 31, 40, physiol. or human biol.) (Limited to 75)	I	TWThF	203HE	Miss Biester
34s	Nutrition Problems (Same as 34f) (Limited to 75)	IV	MTWF	204So	Miss Donelson
40f,s	Food Preparation (5 cred.; freshmen with honor point ratio of 1 or above; prereq. 2 qtrs. chem.) (Sections limited to 16 each)				
	Sec. 1	I, II	MTWThF	103HE	Miss Hepworth
	2	III, IV	MTWF	103HE	Mrs. Leavitt
		III	Th		
	3	VI, VII	MTWThF	103HE	Miss Montgomery

* Offered on the Minneapolis campus.

§ Intended for students in Science, Literature, and the Arts. Open to students in Home Economics only by special permission of chief of division.

No.	Title	Hour	Day	Bldg.	Instructor
40w	Food Preparation (Same as 40f) (Sections limited to 16 each)				
	Sec. 1	I, II	MTWThF	103HE	Miss Hepworth
	2	VI, VII	MTWThF	103HE	Miss Montgomery
41f	Food Management and Marketing (5 cred.; soph., jr., sr.; prereq. 31, 40) (Sections limited to 16 each)				
	Sec. 1	III, IV	MTWF	207HE	Miss Montgomery
	2	V VI, VII VIII	TW TWThF TTh	207HE	Mrs. Leavitt
41w	Food Management and Marketing (Same as 41f) (Sections limited to 16 each)				
	Sec. 1	III, IV, V	MT	207HE	Miss Hepworth
	2	III, IV	WF	107HE	Miss Montgomery
		III, IV, V	WF	207HE	
3	III, IV	MT	107HE	Mrs. Leavitt	
	VI, VII	FWThF	207HE		
	VIII	TTh	207HE		
41s	Food Management and Marketing (Same as 41f) (Sections limited to 16 each)				
	Secs. 1 and 2	III, IV	MTWF	105HE	Miss Gilpin
	3	V	TW	207HE	Mrs. Leavitt
		VII, VIII	TWThF	207HE	Miss Hepworth
IX		TTh	207HE	Miss Hepworth	
45f	Quantity Cookery (6 cred.; soph., jr., sr.; prereq. 40) (Limited to 12) (Formerly 61)				
	Lect.	V	TTh	313HE	Mrs. Trammel
	Lab.	I, II, III	TThS	Cafeteria	Mrs. Trammel
45w,s	Quantity Cookery (Same as 45f) (Winter sections limited to 12 each; Sec. 1, spring, limited to 8; Sec. 2, spring, limited to 12)				
	Lect.	V	TTh	313HE	Mrs. Trammel
	Lab. Sec. 1	I, II, III	TThS	Cafeteria	Mrs. Trammel
		2	I, II, III	MWF	Cafeteria
46f,w,s	Cafeteria Experience (3 cred.; soph., jr., sr.; no prereq.) (Sections limited to 10) (Formerly 62)				
	Lect.	IV	W	Cafeteria	Mrs. Trammel
	Lab. Sec. 1	IV, V	MF	Cafeteria	Mrs. Trammel
		2	IV, V	TTh	Cafeteria

Junior and Senior Courses

50f	Textiles (3 cred.; jr., sr.; prereq. 1) (Sections limited to 30 each)	III, IV	TS	307HE	Miss Brew	
		III	Th			
50w	Textiles (Same as 50f) (Sections limited to 30 each)	III, IV	MWF	307HE	Miss Phelps	
		2	I, II	TThS	307HE	Miss Brew
50s	Textiles (Same as 50f) (Sections limited to 30 each)	III, IV	MWF	307HE	Miss Phelps	
		2	I, II	TThS	307HE	Miss Gorham
53f,w,s*	Advanced Clothing (3 cred.; jr., sr.; prereq. 4, 50 or parallel) (Limited to 20)	VII, VIII	MWF	305HE	Miss Carlotta Brown, Miss Gorham, Miss Birong	
54s	Problems in Clothing Construction (3 cred.; jr., sr.; prereq. 53 or permission of instructor) (Not offered)					

* Home practice in clothing construction is required as prerequisite for Course 4 (or Course 53 for teachers).

No.	Title	Hour	Day	Bldg.	Instructor
56Af-56Bs	Applications of Color and Design (3 cred. each; not open to home econ. students; no prereq.; courses must be taken in the sequence indicated. Written permission must be obtained from the Junior College office, 106 Folwell Hall) (Limited to 24)				
	56Af	VI, VII, VIII	TTh	402HE	Miss V. Goldstein
	56Bs	VI, VII	MWF	402HE	Miss H. Goldstein
64f	Institution Buying (4 cred.; jr., sr.; prereq. 45 and 46 may parallel one or the other)				
	Lect.	I	MWF	313HE	Mrs. Trammel
	Lab.	VI, VII, VIII	F		
65s	Institution Management Problems (3 cred.; jr., sr.; prereq. 45, 46, 64) (Formerly 163)				
	Lect.	III	ThS	313HE	Miss Dunning
	Lab.	III, IV	T	313HE	Miss Dunning
70s	Advanced Food Preparation (3 cred.; prereq. Agr. Biochem. 4, H.E. 40) (Limited to 16)				
		VII, VIII	MWF	105HE	Miss Gilpin
71s	<i>Demonstrations</i> (1 cred.; open to 3rd qtr. jr., sr.; prereq. 41) (<i>Not offered in 1944-45</i>)				
75f,w	Dietetics Laboratory (2 cred.; jr., sr.; prereq. 34 or 170) (Limited to 20)				
		I, II	TTh	107HE	Miss Zander
76f‡	Nutrition (3 cred.; not open to home econ. students; for public health nurses only; prereq. permission of instructor)				
		II	TThS	200Pt	Miss Donelson
79s	Selected Problems for Dietitians (3 cred.; jr., sr.; prereq. 170 or equiv.)				
		II	MWF	213HE	Ar
85f,w	Home Management: Operation and Maintenance, Lectures (4 cred.; jr., sr.; prereq. 40, H.E.Ed. 90 or parallel)				
		VIII	MWF	203HE	Miss Jeary
		VII	M		
86f,w,s	Home Management: Operation and Maintenance, Laboratory (4 cred.; jr., sr.; prereq. 85 or parallel, 40, H.E.Ed. 90, Public Health 52) (Sections limited to 14 each)				
	Sec. 1 1st half of quarter	I and	S	Home	Miss Studley
	2 2nd half of quarter	other hours		Mgt. House	Miss Jeary
98	<i>Home Economics Extension</i> (3 cred.; jr., sr.; prereq. H.E.Ed. 91 or parallel) (<i>Not offered</i>)				
102f	Advanced Textiles (3 cred.; jr., sr.; prereq. 50, Agr. Biochem. 4, Agr. Econ. 3 or parallel) (Limited to 16)				
		VI, VII, VIII	TTh	307, 311HE	Miss Phelps
107w	Textile Analysis (3 cred.; jr., sr.; prereq. 102, Agr. Biochem. 2)				
		VI, VII, VIII	MWF	311HE	Miss Phelps
115s	Economic and Social Aspects of Clothing (3 cred.; jr., sr.; prereq. 50 or parallel, Agr. Econ. 3)				
		IX	MWF	313HE	Miss Brew
120f,w,s	Art History and Appreciation (3 cred.; open to Senior College and grad. students only)				
		VIII	MWF	313HE	Miss H. Goldstein, Miss V. Goldstein
121s	Textile Design (3 cred.; jr., sr.; prereq. 27, 50) (Limited to 24)				
		VI, VII, VIII	TTh	110HE	Ar
122s	Advanced Interior Design (3 cred.; jr., sr.; prereq. 27, 120 or permission of instructor) (Limited to 20)				
		I, II	TThS	402HE	Miss V. Goldstein
125w	Advanced Costume Design (3 cred.; jr., sr.; prereq. 4 or permission of instructor, 22; 26 recommended) (Limited to 20)				
		I, II	MWF	402HE	Ar
142f	Experimental Cookery (3 cred.; jr., sr.; prereq. 40, Agr. Biochem. 4) (Sec. 1 limited to 12; Sec. 2 limited to 8)				
	Sec. 1	VI, VII, VIII	MW	107HE	Miss Hepworth
	2	VI, VII, VIII	TTh	107HE	Miss Noble

‡ Offered on the Minneapolis campus.

No.	Title	Hour	Day	Bldg.	Instructor
142w	Experimental Cookery (Same as 142f) (Limited to 12)	I, II	MWF	107HE	Mrs. Leavitt
146s	Special Food Problems (3 cred.; sr.; prereq. 142)	VI, VII, VIII	MW	107HE	Mrs. Leavitt
170f	Nutrition of the Family (3 cred.; jr., sr.; prereq. 31, 40, Agr. Biochem. 4, Physiol. 3 cred.) (Limited to 40)	II	MWF	106HE	Miss Leichsenring
170w	Nutrition of the Family (Same as 170f) (Limited to 40)	I	MWF	313HE	Miss Zander
171w,s	Child Nutrition (3 cred.; jr., sr.; prereq. 170, H.E.Ed. 90 or Lect.)	III	MW	213HE	Miss Leichsenring
	Lab.	III*	F	Ar	
		IV	Ar before completing registration		
173s	Nutrition in Disease (3 cred.; jr., sr.; prereq. 170; 175 also advised)	I	MWF	213HE	Miss Zander
175w	Nutrition II (4 cred.; jr., sr.; prereq. 33) (Each lab. section limited to 24)	II	MWF	106HE	Miss Donelson
	Lect.	II	MWF	106HE	
	Lab.	VI, VII, VIII	T	211HE	
176w	Advanced Nutrition (4 cred.; jr., sr.; prereq. 175 or parallel, Agr. Biochem. 2) (Limited to 12)	II, III, IV	TS	307HE	Miss Biester
		II, III	Th	311HE	
177s	Digestion of Metabolism (3 cred.; jr., sr.; prereq. 175) (Limited to 15)	VI, VII, VIII	TTh	307HE	Miss Leichsenring
178f,w,s	Clinical Problems in Nutrition (2 cred.; jr., sr.; prereq. 75 or parallel, 170, 175 or parallel) (Limited to 8) (See instructor before completing registration)	V	M	313HE	Miss Zander
	Lect.	V	M	313HE	
	Lab.	V, VI, VII, VIII	Th Ar		
179f	Readings in Nutrition (2 cred.; jr., sr.; prereq. 170) (Limited to 15)	III	TTh	106HE	Miss Zander
179s	Readings in Nutrition (Same as 179f) (Limited to 15)	I	TTh	213HE	Miss Donelson
180f,w	Home Planning and Furnishing (5 cred.; jr., sr.; prereq. 27; 120 recommended) (Limited to 24)	III, IV	MTWF	401HE	Miss H. Goldstein
180s	Home Planning and Furnishing	I, II	MTWF	401HE	Miss H. Goldstein
185	<i>Family Relationships</i> (2 cred.; jr., sr.; prereq. 86 or parallel, H.E.Ed. 90) (<i>Not offered—ordinarily offered in alternate years</i>)				
186s	Problems in Income Management (3 cred.; prereq. 85 or parallel, 86 or parallel, 34 or equiv., Agr. Econ. 126 or parallel)	VII	MWF	203HE	Miss Studley

HOME ECONOMICS EDUCATION

For list of courses in Home Economics Education see courses listed under the College of Education, page 130.

HORTICULTURE

Freshman and Sophomore Courses

6f	Fruit Growing (3 cred.; no prereq.)	II	MWF	302Hr	Mr. Brierley
10s	Home Floriculture (3 cred.; [2 cred. only if Hort. 56 has been taken]; no prereq.)	III	MWF	8aHr	Mr. Longley
				1 extra lab. hr. ar.	

* Class meets on Minneapolis campus.

No.	Title	Hour	Day	Bldg.	Instructor
11s	Garden Flowers (3 cred.; prereq. Bot. 9 cred. or equiv.) (Offered in 1944-45 and alternate years)	VI, VII, VIII VI, VII	T Th	8Hr	Mr. Longley
12f	Commercial Floriculture, Fall Crops (3 cred.; prereq. Bot. 6 cred. or equiv.)	VI, VII, VIII VI, VII	T Th	8Hr	Mr. Longley
14s	Commercial Floriculture, Spring Crops (3 cred.; prereq. Bot. 6 cred. or equiv.) (<i>Not offered—offered in alternate years</i>)				
21f	Plant Materials, Fall and Winter Aspects (3 cred.; prereq. Bot. 9 cred. or equiv.)	VI, VII, VIII	MW	8aHr	Mr. Longley
22s	Plant Materials, Spring and Summer Aspects (3 cred.; prereq. Bot. 9 cred. or equiv.)	VI, VII, VIII	MW	8aHr	Mr. Longley
24f	Principles of Landscape Design (3 cred.; prereq. 21 or 22 or instructor's permission)	VI, VII, VIII	MF	107Hr	Mr. Longley
25w	Principles of Planting Composition (3 cred.; prereq. 21 or 22 or instructor's permission)	VI, VII, VIII	MF	107Hr	Mr. Longley
32s	Vegetable Growing (3 cred.; no prereq.)	II	MWF	302Hr	Mr. Krantz, Mr. Hutchins
40s	Horticulture Laboratory (2 cred.; soph., jr., sr.; prereq. 6 or instructor's permission)	VI, VII, VIII, IX	Ar	8Hr	Mr. Weir

Junior and Senior Courses

56w	Plant Propagation (3 cred. [2 cred. if Course 10 has been taken]; jr., sr.; prereq. Bot. 6 cred. or equiv.) (<i>Not offered—offered in alternate years</i>)				
107f	Orchard Management (3 cred.; jr., sr.; prereq. 6) (Offered in 1944-45 and alternate years)	III VI, VII	TTh Th	106Hr	Mr. Brierley
110w	Horticultural Crop Breeding (3 cred.; jr., sr.; prereq. Agron. 31)	III	TThS	302Hr	Mr. Wilcox
111f	Systematic Pomology (3 cred.; jr., sr.; prereq. 6, Bot. 9 cred. or equiv.) (<i>Not offered—offered in alternate years</i>)				
121w	Small Fruit Culture (3 cred.; jr., sr.; prereq. 6 or 32, Bot. 9 cred. or equiv.)	II	MWF	106Hr	Mr. Brierley
135f	Potatoes (3 cred.; jr., sr.; prereq. 32, Bot. 9 cred. or equiv.)	Ar	Ar	302Hr	Mr. Krantz
137w	Vegetable Crops (3 cred.; jr., sr.; prereq. 32, Bot. 9 cred. or equiv.)	Ar	Ar	302Hr	Mr. Hutchins
153w	Conservatory Plants and Florists' Flowers (3 cred.; jr., sr.; prereq. Bot. 9 cred. or equiv.) (Offered in 1944-45 and in alternate years)	VI, VII, VIII VI, VII	M W	8Hr	Mr. Longley
176s	Landscape Construction and Maintenance (3 cred.; sr.; prereq. 24 or 25 or instructor's permission) (Offered in 1944-45 and alternate years)	Ar	Ar	107Hr	Mr. Longley
190f-191w-192s	Special Problems (2 to 4 cred. per qtr.; jr., sr.; prereq. instructor's permission)	Ar	Ar Ar		Mr. Alderman and staff
193f-194w	Horticultural Seminar (1 cred. per qtr.; sr.; prereq. Hort. 9 cred.)	IX	W	106Hr	Horticultural staff

MUSIC

See Music Education, under College of Education, Course 43f-44w-45s, University Farm Music Ensembles—Vocal and Instrumental, page 135.

ORIENTATION

No.	Title	Hour	Day	Bldg.	Instructor
1f,w,s	College Orientation Lectures (1 cred.) (Students must register for this course in their first quarter in college)	IV VI	T(f) T(w)	AudAd(UF) 301Ad	Mr. Harden
			(s)	Ar	

PLANT PATHOLOGY AND BOTANY

Freshman and Sophomore Courses

1f	Plant Pathology (5 cred.; soph., jr., sr.; not open to students who have taken Course 10; prereq. 9 cred. in plant sciences of which at least 6 shall be in botany)	VII, VIII, IX	MWF	103,105PP	Mr. Tervet, Mr. Moore
1s	Plant Pathology (Same as 1f)	VII, VIII, IX	MWF	103,105PP	Mr. Tervet, Mr. Moore
7w	Grasses and Sedges (3 cred.; soph., jr., sr.; prereq. Bot. 9 cred. or permission of instructor)	III	TThS	106AgrBot	Mr. Larson
8s	Weeds (3 cred.; soph., jr., sr.; prereq. Bot. 6 cred.) (Each section limited to 40 students)	IV	TS	106AgrBot	
	Sec. 1 Lect.	III	TTh	107AgrBot	Mr. Larson
	Lab.	III, IV	S	106AgrBot	
	Rec. and quiz	IV	T	107AgrBot	
	2 Lect.	III	ThS	107AgrBot	
	Lab.	III, IV	T	106AgrBot	
	Rec. and quiz	IV	S	107AgrBot	
9f	Weeds and Seed Testing (3 cred.; soph., jr., sr.; prereq. Bot. 9 cred. or permission of instructor)	VI, VII, VIII	TTh	106AgrBot	Mr. Larson
10w	Forest Pathology (5 cred.; soph., jr., sr.; not open to those who have completed Course 1; prereq. Bot. 9 cred.)	VII, VIII, IX	MWF	103,105PP	Mr. C. Christensen
10s	Forest Pathology (Same as 10w)	I	MWF	103PP	Mr. C. Christensen
		I, II	TThS	105PP	

Junior and Senior Courses

51f,w,s	Special Problems in Forest Pathology (2 to 5 cred.; jr., sr.; prereq. 10)	Ar	Ar	PP	Mr. C. Christensen
52w	Seed Problems (3 cred.; jr., sr.; prereq. 9)	Ar	Ar	106AgrBot	Mr. Larson
53s	Food Plants of Game Animals (3 cred.; jr., sr.; prereq. one yr. of bot. and one yr. of zool. or equiv.)	IV	MWF	106AgrBot	Mr. Larson
54f	Introduction to the Study of Fungi (3 cred.; jr., sr.; prereq. 9 cred. in bot. or permission of instructor)	II II, III	MW F	107PP	Mr. C. Christensen
55w	Applied Plant Physiology I (3 cred.; jr., sr.; prereq. 9 cred. in bot. or permission of instructor)	VI, VII, VIII	TTh	106AgrBot	Mr. Landon

No.	Title	Hour	Day	Bldg.	Instructor
101f	Special Agricultural Botany (3 or 5 cred.; jr., sr.; prereq. Bot. 9 cred. or equiv.)	Ar	Ar	Ar	Mr. Stakman, Mr. Harvey, Mr. Tervet, Mr. Larson
104w	Industrial Mycology (3 cred.; jr., sr., grad.; prereq. P.P. 54 or 1 or 10)	II II, III	MW F	107PP	Mr. C. Christensen
105f-106w-107s	Mycology (3 or 5 cred. per qtr.; jr., sr.; prereq. 1 or 10 or equiv.)	VI, VII, VIII VI, VII, VIII	TTh MW	(f,w)110PP	Miss Dossdall
110w	Principles of Pathology (5 cred.; jr., sr.; prereq. 1 or 10, Bact. 53)	III, IV	MWF	104PP	Mr. Stakman, Mr. Eide
111w	Diseases of Field Crops (3 cred.; jr., sr.; prereq. 1 or 10)	VI, VII	MWF	107PP	Mr. J. J. Christensen
112s	Diseases of Fruit and Vegetable Crops (3 cred.; jr., sr.; prereq. 1 or 10)	III, IV	MWF	104PP	Mr. Eide, Mr. Sharvelle
114w	Advanced Forest Pathology (3 cred.; jr., sr.; prereq. 1 or 10)	VI VI, VII, VIII	T Th	104PP	Mr. C. Christensen
118f	<i>Bacterial Diseases of Plants</i> (3 cred.; jr., sr.; prereq. 1 or 10) (<i>Not offered—offered in alternate years</i>)	VI, VII, VIII	TTh	104PP	Mr. Sharvelle, Mr. Moore
119s	Principles of Plant Disease Control (3 cred.; jr., sr.; prereq. 1 or 10)	VI, VII, VIII	TTh	104PP	Mr. Sharvelle, Mr. Moore
141f-142w	Insects in Relation to Plant Disease (6 cred.; jr., sr.; prereq. 8 cred. in ent. or plant path.)	I, II	MWF	302Ad	Mr. J. J. Christensen, Mr. Granovsky
143f	Methods (3 cred.; jr., sr.; prereq. 1 or 10)	Ar	Ar	104PP	Miss Hart, Mr. Moore
160f	Plant Histochemistry (3 cred.; sr.; prereq. bot. and elem. chem.)	Ar	Ar	Ar	Mr. Landon
161f	Transport, Storage, and Ripening of Fruits and Vegetables (3 cred.; sr.; prereq. Plant Physiol. 3 cred.)	Ar	Ar	Ar	Mr. Harvey
162w	Physiological Relations of Crop Plants to Temperature (3 cred.; sr.)	Ar	Ar	Ar	Mr. Harvey
163s	Applied Plant Physiology II (3 cred.; jr., sr.; prereq. Plant Physiol. 3 cred., Chem. 5 cred.)	Ar	Ar	Ar	Mr. Landon

PUBLICATIONS AND RURAL JOURNALISM

53w	Publicity (3 cred.; jr., sr.; prereq. Rhet. 1, 2, 3)	I	TThS	302Hr
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For additional courses see under Journalism, College of Science, Literature, and the Arts, page 61.

RHETORIC

Freshman and Sophomore Courses

1f	Rhetoric I (3 cred.; no prereq.) (Sections limited to 35 each)	II	MWF	311En	Mr. Nichols
	Sec. 1	I	TThS	307En	Ar
	2	I	MWF	307En	Ar
	3	I	MWF	307En	Ar

No.	Title	Hour	Day	Bldg.	Instructor
1w	Rhetoric I (Same as 1f) (Limited to 35)	II	MWF	307En	Ar
1s	Rhetoric I (Same as 1f)	III	MWF	307En	Ar
2f	Rhetoric II (3 cred.; prereq. 1) (Sections limited to 35 each)	III	TThS	307En	Ar
	Sec. 1	III	TThS	307En	Ar
	2	II	MWF	307En	Ar
2w	Rhetoric II (Same as 2f) (Sections limited to 35 each)	II	MWF	311En	Mr. Nichols
	2	IV	MWF	308En	Miss Thurston
	3	III	TThS	307En	Ar
2s	Rhetoric II (Same as 2f) (Limited to 35)	IV	MWF	308En	Miss Thurston
3f	Rhetoric III (3 cred.; prereq. 2) (Limited to 35)	IV	MWF	307En	Ar
3w	Rhetoric III (Same as 3f) (Limited to 35)	I	MWF	307En	Ar
3s	Rhetoric III (Same as 3f) (Sections limited to 35 each)	II	MWF	307En	Ar
	Sec. 1	II	MWF	307En	Ar
	2	II	TThS	307En	Ar
12f,w,†	Debate and Discussion (3 cred.; soph., jr., sr.; prereq. 3, 22 recommended)	III	TThS	311En	Mr. Nichols
22f‡	Public Speaking (3 cred.; soph., jr.; prereq. 3) (Sections limited to 20 each)	III	MWF	311En	Mr. Nichols
	Sec. 1	III	MWF	311En	Mr. Nichols
	2	II	TThS	311En	Mr. Nichols
	3	I	MWF	311En	Mr. Nichols
22w‡	Public Speaking (Same as 22f) (Sections limited to 20 each)	IV	MWF	311En	Mr. Nichols
	2	III	MWF	311En	Mr. Nichols
	3	I	MWF	311En	Mr. Nichols
	4	II	TThS	311En	Mr. Nichols
22s‡	Public Speaking (Same as 22f) (Sections limited to 20 each)	III	MWF	311En	Mr. Nichols
	Sec. 1	III	MWF	311En	Mr. Nichols
	2	II	TThS	311En	Mr. Nichols
	3	III	TThS	311En	Mr. Nichols
24s‡	Advanced Public Speaking (3 cred.; soph., jr., sr.; prereq. 22) (Limited to 20)	II	MWF	311En	Mr. Nichols
28f,st	Play Production (3 cred.; soph., jr., sr.; prereq. 3) (Not offered)				
31f	Survey of English Literature I (5 cred.; soph., jr., sr.; prereq. 3 or permission of instructor) (Limited to 40)	III	MTWThF	308En	Miss Thurston
31s	Survey of English Literature I (Same as 31f) (Limited to 40)	III	MTWThF	308En	Miss Thurston
32f,s	Survey of English Literature II (3 cred.; soph., jr., sr.; prereq. 3) (Limited to 40) (Not offered)				
33w,s	American Life in American Literature (3 cred.; soph., jr., sr.; prereq. 3)	II	MWF	308En	Miss Thurston
34f,w,s	Books and Reading (1 cred.; no prereq.)	IV	F	310En(f)	Mr. Randel
		I	F	307En(w)	
		I	Th	310En(s)	

Junior and Senior Courses

51f	Exposition (3 cred.; jr., sr.; prereq. 3) (Limited to 35)	II	TThS	308En	Miss Thurston
	Sec. 1	II	TThS	308En	Miss Thurston
	2	IV	MWF	308En	Miss Thurston
51w	Exposition (Same as 51f)	III	MWF	308En	Miss Thurston
	Sec. 1	III	TThS	308En	Miss Thurston
	2	III	TThS	308En	Miss Thurston

† A fee of \$1 per quarter is charged for this course.

No.	Title	Hour	Day	Bldg.	Instructor
51s	Exposition (Same as 51f)	II	TThS	308En	Miss Thurston
59s†	<i>Advanced Play Production</i> (3 cred.; jr., sr.; prereq. 28 or permission of instructor) (<i>Not offered</i>)				
60w,s	Contemporary Literature (3 cred.; jr., sr.; prereq. 3)	IV	MWF	105En	Ar

SOILS

Freshman and Sophomore Courses

4w	Soils (3 cred.; soph., jr., sr.; prereq. Chem. 1 and 2 or 4 and 5)	II	MWF	204So	Mr. Caldwell
5s	Soil Management (3 cred.; soph., jr., sr.; prereq. Soils 4)	II	TThS	204So	Mr. Rost

Junior and Senior Courses

51f	Field and Laboratory Studies of Soils (2 cred.; jr., sr.; prereq. Soils 4)				
	Sec. 1	VI, VII, VIII, IX	M	201So	Mr. MacGregor
	2	VI, VII, VIII, IX	T	201So	
103f	Principles of Soil Erosion (3 cred.; jr., sr.; prereq. Soils 4)	II	TThS	204So	Mr. Rost
104su*	Soil Mapping (3 cred.; prereq. Soils 105 and 108)	Ar	Ar	Ar	Mr. McMiller
105s	Minnesota Soils, Their Origin and Classification (3 cred.; jr., sr.; prereq. Soils 4)	IV	MWF	204So	Mr. McMiller
107w	Fertilizers (3 cred.; jr., sr.; prereq. Soils 4)	I	TThS	204So	Mr. MacGregor
108w	Physical Properties of Soils (3 cred.; jr., sr.; prereq. Soils 4)				
	Lect.	VI	W	204So	Mr. McMiller
	Lab.	VII, VIII, IX	W	201So	Mr. McMiller
		VI, VII, VIII	F	201So	

VETERINARY MEDICINE

Junior and Senior Courses

50f-51w-52s†	Anatomy, Physiology, and Hygiene of Domestic Animals (9 cred.; jr., sr.)	I	TThS	103Ve	Mr. Boyd, Mr. Kernkamp
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* Arrangements must be made in advance of registration.

† Course must be taken in sequence 50-51-52 but entire sequence need not be completed in order to receive credit.

‡ A fee of \$1 per quarter is charged for this course.

SCHOOL OF BUSINESS ADMINISTRATION

ECONOMICS

Junior college advisers—Associate Professor Borak; Instructors Bentson, Berrettoni, Lund, Peterson.

Major advisers in the College of Science, Literature, and the Arts—Professors Garver and Marget; Associate Professor Myers.

Major sequence in the College of Science, Literature, and the Arts—A student majoring in Economics is required to earn at least 33 credits in Senior College courses as follows: (1) required courses: Economics 103-104, 141, 161; (2) at least 6 credits from Economics 105, 106, 108, 149, 176, 191-192; (3) at least 6 credits from Economics 110, 172, 175, 185; and (4) 9 additional credits from any Senior College economics courses listed in this bulletin. Students who expect to take postgraduate work in business or economics in this or another university are advised to include in their program the following courses: Economics 5 and 121-122-123 in statistics; and Economics 25-26 in accounting.

Modifications of this sequence will be permitted upon petition approved by the major adviser and the assistant dean for the Senior College.

(Prerequisites: Economics 3 and 6-7. In addition the student is urged to earn at least 9 credits in History, Political Science, or Sociology.)

Honors course—Students whose records show that they are capable of doing better than average work, and who wish to study for graduation honors or to pursue a special interest should consult a major adviser for modification of the sequential requirements.

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
1f	Industrial History (5 cred.; fr., soph.; no prereq.)				
	Lect.	III	TTh	1 VH	Mr. Heaton
	Sec. 1	II	MWF	6VH	and others
	2	IV	MWF	2VH	
	3	VI	MWF	221VH	
2w	Industrial Production and Organization (5 cred.; fr. only; no prereq.)				
	Lect.	III	TTh	1 VH	Mr. Filipetti
	Sec. 1	II	MWF	205VH	and others
	2	IV	MWF	6VH	
	3	VI	MWF	6VH	
3f	Elements of Money and Banking (5 cred.; 2nd and 3rd qtr. fr., soph.; no prereq.)				
	Lect.	II	TTh	1 VH	Mr. Stehman
	Sec. 1	II	MWF	2VH	and others
	2	VII	MWF	221VH	
3w	Elements of Money and Banking (See 3f)	VII	MTWThF	207VH	Mr. Graves
3s	Elements of Money and Banking (See 3f)				
	Lect.	III	TTh	BuAud	Mr. Stehman
	Sec. 1	II	MWF	1 VH	and others
	2	III	MWF	207VH	
	3	IV	MWF	6VH	
	4	VII	MWF	207VH	

SCHOOL OF BUSINESS ADMINISTRATION

No.	Title	Hour	Day	Bldg.	Instructor
5f*	Elements of Statistics (5 cred.; soph.; no prereq.)				
	Lect.	III	M	4VH	Mr. Kozelka
	Sec. 1	III	TWThF	105VH	and others
	2	VI	TWThF	2VH	
5w*	Elements of Statistics (See 5f)	II	MTWThF	105VH	Mr. Kozelka and others
5s*	Elements of Statistics (See 5f)				
	Lect.	II	F	4VH	Mr. Kozelka
	Sec. 1	II	MTWTh	105VH	and others
	2	VI	MTWTh	2VH	
6f-7w†‡	Principles of Economics (10 cred.; soph., jr., sr.; no prereq.)				
	Lect.	II	F	4VH	Mr. Marget
	Sec. 1	I	MTWTh	112VH	and others
	2	II	MTWTh	112VH	
	3 (fall only)	IV	MTWF	112VH	
	4	VII	MTWTh	112VH	
6w-7s†	Principles of Economics (See 6f-7w)				
	Lect.	IV	T	1 VH	Mr. Marget
	Sec. 1	II	MWThF	6VH	and others
	2	VI	MWThF	112VH	
6s†	Principles of Economics (1st qtr. of 6-7. See 6f-7w)	I	MTWThF	112VH	Ar
7f†	Principles of Economics (2nd qtr. of 6-7. See 6f-7w)	I	MTWThF	6VH	Ar
8f-9w	General Economics (6 cred.; soph., jr., sr., open to Institute of Technology students only; no prereq.)	I	MWF	221VH	Mr. Filipetti and others
10	<i>An Introduction to Economic Analysis</i> (3 cred.; open to College of Pharmacy students only; no prereq.) (<i>Not offered</i>)				
20f‡	Elements of Accounting (3 cred.; 3rd qtr. fr., soph.; no prereq.)				
	Sec. 1	II	TThS	307VH	Mr. Heilman
	2	III	MWF	307VH	and others
	3	VI	MWF	6VH	
20w‡	Elements of Accounting (See 20f)				
	Sec. 1	III	MWF	6VH	Mr. Heilman
	2	VI	MWF	307VH	and others
20s‡	Elements of Accounting (See 20f)				
	Sec. 1	II	MWF	307VH	Mr. Heilman
	2	III	TThS	307VH	and others
	3	VII	MWF	2VH	
25f-26w	Principles of Accounting (6 cred.; soph., jr., sr.; prereq. Econ. 20)	III	TThS	307VH	Mr. Heilman and others
25w-26s	Principles of Accounting (See 25f-26w)				
	Sec. 1	II	TThS	307VH	Mr. Heilman
	2	III	MWF	307VH	and others
25s	Principles of Accounting (1st qtr. of 25-26. See 25f-26w)	I	MWF	307VH	Mr. Heilman and others
26f	Principles of Accounting (2nd qtr. of 25-26. See 25f-26w)	VI	MWF	205VH	Mr. Heilman and others

* Not open to students who have received credit in Soc. 45 or B.A. 70.

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ The final examination in this course will conflict with that of any course having lectures the same hour MW. Therefore, students must not register for two such courses.

§ Students who have had high school training or other experience in bookkeeping and who pass a placement test may be exempt from this course and admitted to Econ. 25. This placement test will be given on the first day of each quarter. For further information consult the office of the dean of the School of Business Administration.

No.	Title	Hour	Day	Bldg.	Instructor
27s†	Accounting Survey (5 cred.; open to prelaw and law students only; no prereq.)	II	MTWThF	221VH	Mr. Miller
28f	Business Law (3 cred.; soph., jr., sr., with 6 cred. in econ. or sr. without econ. cred., open to Institute of Technology and College of Agriculture students only)	I	MWF	135E	Mr. Palmer
28s	Business Law (See 28f)	I	MWF	335EE	Mr. Palmer
29s	Principles of Accounting (3 cred.; soph., jr., sr.; open to Institute of Technology students only; no prereq.)	I	MWF	221VH	Mr. Lund
30f	Elements of Retail Accounting (3 cred.; open to College of Pharmacy students only; prereq. Econ. 10)	II	MWF	307VH	Mr. Ostlund
32f†-33w*††	Secretarial Training: Typewriting (2 cred.; fr., soph., jr., sr.; no prereq.)	I	MTWThF	209VH	Miss Donaldson and others
	Sec. 1				
	2	{ IV V	MTWF Th	211VH	
	3	VI	MTWThF	209VH(f), 211VH(w)	
32w†-33s*††	Secretarial Training: Typewriting (See 32f-33w)				
	Sec. 1	III	MTWThF	211VH	Miss Donaldson and others
	2 (spring only)	VII	MTWThF	209VH	
32s*††	Secretarial Training: Typewriting (1st qtr. of 32-33. See 32f-33w)				
	Sec. 1	I	MTWThF	211VH	Miss Donaldson and others
	2	VI	MTWThF	211VH	
33f*††	Secretarial Training: Typewriting (2nd qtr. of 32-33. See 32f-33w)				
	Sec. 1	{ IV V	MTWF Th	209VH	Miss Donaldson and others
	2	VII	MTWThF	209VH	
34w*†	Secretarial Training: Advanced Typewriting (1 cred.; soph., jr., sr.; prereq. consent of instructor)	VI	MTWThF	209VH	Miss Donaldson and others
34s*†	Secretarial Training: Advanced Typewriting (See 34w)				
		{ IV V	MTWF Th	209VH	Miss Donaldson and others
35s†	Office Practice for Dental Hygienists (3 cred.; dent. hyg. only; prereq. Econ. 32-33 or equiv.)	IV	MWF	211VH	Miss Donaldson and others
37f†-38w††**	Secretarial Training: Shorthand (6 cred.; soph., jr., sr.; prereq. Econ. 32 or consent of instructor)				
	Sec. 1	I	MTWThF	211VH	Miss Donaldson and others
	2	II	MTWThF	211VH	
37w†-38s††**	Secretarial Training: Shorthand (See 37f-38w)	II	MTWThF	209VH	Miss Donaldson and others

* Students who have had one year of high school typewriting are admitted to Econ. 33; those who have had two years of high school typewriting may be admitted to Econ. 34 by passing a placement test.

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$2.50 a quarter is charged students registering for one or more of these courses.

¶ Not open to students who have received credit in 20, 25-26.

** Students who have had one year of high school shorthand are admitted to Econ. 38; those who have had two years of high school shorthand are admitted to Econ. 40.

SCHOOL OF BUSINESS ADMINISTRATION

No.	Title	Hour	Day	Bldg.	Instructor
39s†**	Secretarial Training: Shorthand (3 cred.; soph., jr., sr.; prereq. Econ. 38 or consent of instructor)	II	MTWThF	211VH	Miss Donaldson and others
40f†-41w†**	Secretarial Procedure (6 cred.; soph., jr., sr.; prereq. Econ. 34 and 39 or consent of instructor)	III	MTWThF	209VH	Miss Donaldson and others
42s†	Advanced Secretarial Procedure (3 cred.; jr., sr.; prereq. Econ. 41)	I	MTWThF	209VH	Miss Donaldson and others
43f†	Advanced Shorthand Theory (2 cred.; soph., jr., sr.; prereq. Econ. 34 and 39; not open to students in the College of Science, Literature, and the Arts)	VI	TTh	211VH	Miss Donaldson
49f	Introduction to Economics for Social Workers (5 cred.; soph., jr., sr.; no prereq.; open only to students in social work)	VIII	MTWThF	6VH	Mr. Vaile

Senior College Courses

50f	Insurance Principles (3 cred.; jr., sr.; prereq. Econ. 6-7 or 83)	III	TThS	205VH	Mr. Graves
82f§	Competition and Monopoly in Modern Industry (3 cred.; jr., sr.; no prereq.)	II	TThS	205VH	Mr. Stigler
83w§	The Inequality of Incomes (3 cred.; jr., sr.; prereq. Econ. 82)	II	TThS	205VH	Mr. Stigler
84s	Comparative Economic Systems (3 cred.; jr., sr.; prereq. Econ. 6-7 or 83)	I	TThS	205VH	Ar
97f,98w,99s	Honors Course in Economics (Cred. ar.; jr., sr.; prereq. consent of major advisers)	Ar	Ar	Ar	Ar
103-104†	<i>Advanced Economics</i> (6 cred.; jr., sr., grad.; not open to School of Business Administration students; prereq. 20 cred. in soc. sci. including Econ. 6-7 or 83) (<i>Not offered</i> . For the current year B.A. 101-102 may be substituted for Econ. 103-104)				
105s	History of Economic Ideas: The Classical Economists (3 cred.; jr., sr., grad.; prereq. B.A. 101-102 or Econ. 103-104 or consent of instructor)	VII	MWF	105VH	Mr. Garver
106	<i>History of Economic Ideas: The Critics of the Classical Economists</i> (3 cred.; jr., sr., grad.; prereq. B.A. 101-102 or Econ. 103-104 or consent of instructor) (<i>Not offered</i>)				
108	<i>Applications of Economic Theory</i> (3 cred.; jr., sr., grad.; prereq. B.A. 101-102 or Econ. 103-104) (<i>Not offered</i>)				
110	<i>Industrial Price Control</i> (3 cred.; jr., sr., grad.; prereq. Econ. 6-7 or 83 and 15 additional credits in economics and/or business administration. B.A. 155 is a desirable preceding course) (<i>Not offered</i>)				
111f	City Planning. Same as Architecture 104, Political Science 124, and Sociology 104, General survey of the economic, governmental, social, and technical phases of city planning and group housing. (3 cred.; prereq. senior or graduate standing)	III	MWF	320E	Mr. Jones, Mr. Anderson, Mr. Filipetti, Mr. Vaile, Mr. Sletto

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$2.50 a quarter is charged students registering for one or more of these courses.

§ Not open to students who have received credit in Econ. 6-7.

|| This course may not be included as a part of the Senior College work required for a minor in economics in the College of Science, Literature, and the Arts.

** Students who have had one year of high school shorthand are admitted to Econ. 38; those who have had two years of high school shorthand are admitted to Econ. 40.

No.	Title	Hour	Day	Bldg.	Instructor
121f-122w† 123s	Theory of Statistics (9 cred.; jr., sr., grad.; prereq. Econ. 5)	I	MWF	205VH	Mr. Mudgett
124	<i>Comparative Banking: British Systems</i> (3 cred.; jr., sr., grad.; prereq. Econ. 141 or B.A. 142) (<i>Not offered</i>)	II	MWF	205VH	Mr. Myers
126s	Economic Problems of Latin America (3 cred.; jr., sr., grad.; prereq. Econ. 6-7 or 83)	II	MWF	205VH	Mr. Myers
127	<i>Comparative Banking: South American Systems</i> (3 cred.; jr., sr., grad.; prereq. Econ. 141 or B.A. 142) (<i>Not offered</i>)	II	MWF	205VH	Mr. Myers
140	<i>The Co-operative Movement</i> (3 cred.; jr., sr., grad.; prereq. Econ. 6-7 or 83) (<i>Not offered</i>)	II	MWF	205VH	Mr. Myers
141	<i>Monetary and Banking Policy</i> (3 cred.; jr., sr., grad.; not open to School of Business Administration students; prereq. Econ. 3 and either Econ. 6-7 or 83) (<i>Not offered</i> . For the current year B.A. 142 may be substituted for Econ. 141)	II	MWF	205VH	Mr. Myers
149w	Business Cycles (3 cred.; sr., grad.; prereq. Econ. 141 or B.A. 142 or consent of instructor)	VI	MWF	207VH	Mr. Myers
149s	Business Cycles (See 149f)	VI	MWF	207VH	Mr. Myers
161f	Labor Problems and Trade Unionism (3 cred.; jr., sr., grad.; prereq. Econ. 6-7 or 83)	II	TThS	1 VH	Mr. Myers
161w	Labor Problems and Trade Unionism (See 161f)	I	TThS	207VH	Mr. Yoder
161s	Labor Problems and Trade Unionism (See 161f)	IV	MWF	2VH	Mr. Yoder
162w	Labor and Socialist Movements (3 cred.; jr., sr., grad.; prereq. Econ. 161)	IV	MWF	1 VH	Mr. Yoder
164s	Labor Legislation and Social Insurance (3 cred.; jr., sr., grad.; prereq. Econ. 161)	VII	MWF	6VH	Ar
172	<i>Economics of Transportation</i> (3 cred.; jr., sr., grad.; prereq. 20 cred. in soc. sci. including Econ. 6-7 or 83) (<i>Not offered</i>)	III	TThS	2VH	Ar
175f	Government Regulation of Business (3 cred.; jr., sr., grad.; prereq. 20 cred. in soc. sci. including Econ. 6-7 or 83)	III	MWF	207VH	Mr. Garver
175w	Government Regulation of Business (See 175f)	III	MWF	207VH	Mr. Garver
175s	Government Regulation of Business (See 175f)	II	TThS	207VH	Mr. Garver
176f	International Commercial Policies (3 cred.; jr., sr., grad.; prereq. Econ. 6-7 or 83)	I	MWF	207VH	Mr. Blakey
178	<i>Economics of Consumption</i> (3 cred.; jr., sr., grad.; prereq. Econ. 6-7 or 83; open only to students in the College of Education and students in social work) (<i>Not offered</i>)	I	MWF	207VH	Mr. Blakey
179w	Economic Problems of the Far East (3 cred.; jr., sr.; prereq. Econ. 6-7 or equiv. Not open for credit to graduate majors in economics or business administration.)	III	MWF	105VH	Mr. Vaile
185	<i>Economics of Marketing</i> (3 cred.; jr., sr., grad.; prereq. Econ. 6-7 or 83) (<i>Not offered</i> . For the current year B.A. 77 may be substituted for Econ. 185)	III	MWF	221VH	Mr. Blakey
191f-192w†§	Public Finance (6 cred.; jr., sr., grad.; prereq. Econ. 6-7 or 83)	III	MWF	221VH	Mr. Blakey
193s	State and Local Taxation (3 cred.; jr., sr., grad.; prereq. Econ. 191-192 or B.A. 58)	III	MWF	221VH	Mr. Blakey

Courses Open to Graduate Students Only

203f-204w	Seminar in Economic Theory (6 cred.; grad.)	VIII½-IX	MW	307VH	Mr. Garver
206	<i>Seminar in Market Prices</i> (3 cred.; grad.) (<i>Not offered</i>)	VIII½-IX	TTh	307VH	Mr. Stigler
207f	Theory of Demand (3 cred.; grad.)	VIII½-IX	TTh	307VH	Mr. Stigler

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

§ Credit may not be received for both Economics 191-192 and B. A. 58.

SCHOOL OF BUSINESS ADMINISTRATION

No.	Title	Hour	Day	Bldg.	Instructor
208s	Production and Distribution (3 cred.; grad.)	VIII½-IX	TTh	307VH	Mr. Stigler
233f-234w	Seminar in Public Finance (6 cred.; grad.)	{ VII VII-VIII	W F }	307VH	Mr. Blakey
243-244	Seminar in Money and Banking (6 cred.; grad.) (Not offered)				
251a	Seminar in Industrial Relations (3 cred.; grad.)	VIII½-IX	MW	307VH	Mr. Yoder

BUSINESS ADMINISTRATION

For advisers see the Bulletin of the School of Business Administration.

Courses Open to Business Administration Students Only

51f*	Business Law: Contracts (3 cred.; jr., sr.; prereq. Econ. 6-7)				
	Lect.	IV	T	1 VH	Mr. Gray
	Sec. 1	I	ThS	113VH	
	2	II	ThS	113VH	
52w*	Business Law: Agency, Partnership, and Corporations (3 cred.; jr., sr.; prereq. B.A. 51)				
	Lect.	IV	T	4VH	Mr. Gray
	Sec. 1	I	ThS	113VH	
	2	II	ThS	113VH	
53s*	Business Law: Sales and Negotiable Instruments (3 cred.; jr., sr.; prereq. B.A. 51)				
	Lect.	IV	T	4VH	Mr. Gray
	Sec. 1	I	ThS	113VH	
	2	II	ThS	113VH	
54f-55w†	Elementary Accounting—Combined course (8 cred.; jr., sr.; no prereq.)	IV	MTWF	307VH	Mr. Miller
56	Property Rights and Obligations (3 cred.; jr., sr.; prereq. B.A. 53) (Not offered)				
57f†	Money and Banking (3 cred.; jr., sr.; no prereq.)	VII	MWF	207VH	Mr. Graves
58f,w,§††	Elements of Public Finance (3 cred.; jr., sr.; prereq. Econ. 6-7)	IV	MWF	207VH	Mr. Blakey and others
59	Life Insurance (3 cred.; jr., sr.; prereq. 50) (Not offered)				
60w	Fire and Marine Insurance (3 cred.; jr., sr.; prereq. Econ. 50)	III	MWF	205VH	Mr. Graves
61s	Casualty Insurance (3 cred.; jr., sr.; prereq. Econ. 50)	III	TThS	205VH	Mr. Graves
64w	Graphic Arts I: Elementary Principles of Design—Identical with Drawing and Descriptive Geometry 64 (3 cred.; jr., sr.; prereq. permission of adviser in School of Business Administration or in School of Journalism)	IV	MWF	206E	Mr. Doseff
65f‡	Graphic Arts II: Processes—Identical with Drawing and Descriptive Geometry 65 and Journalism 65 (3 cred.; jr., sr.; prereq. permission of adviser in School of Business Administration or in School of Journalism)	IV	MWF	105MurH	Mr. Barnhart
67w	Retail Store Management for Pharmacy Students (3 cred.; open to College of Pharmacy students only; prereq. Econ. 10 and 30)	I	MWF	2VH	Mr. Chute
68f	Sales Management (3 cred.; jr., sr.; prereq. B.A. 77)	II	TThS	2VH	Mr. Chute
69w	Retail Store Management (3 cred.; jr., sr.; prereq. B.A. 77)	II	TThS	2VH	Mr. Chute

* No credit will be allowed for B. A. 51, 52, or 53 until all three are completed.

‡ Journalism course. A fee of \$1 per quarter is charged students taking courses in Journalism.

§ Credit may not be received for both Economics 191-192 and B. A. 58.

† Credit may not be received for both Economics 3 and B. A. 57.

† A combination of Economics 20, 25, and 26.

†† Economics 191-192 (6 cred.) may be substituted for B. A. 58 as a core group requirement.

No.	Title	Hour	Day	Bldg.	Instructor
70f**	Statistics Survey (3 cred.; jr., sr.; prereq. Econ. 6-7)	I	MWF	2VH	Mr. Graves
71f	Transportation: Services and Charges I (3 cred.; jr., sr.; prereq. Econ. 6-7)	III	TThS	2VH	Mr. Nightingale
71w,s	Transportation: Services and Charges I (See 71f)	II	MWF	2VH	Mr. Nightingale
72s	Transportation: Services and Charges II (3 cred.; jr., sr.; prereq. B.A. 71)	I	MWF	2VH	Mr. Nightingale
76f	Credits and Collections (3 cred.; jr., sr.; prereq. B.A. 77)	III	MWF	6VH	Mr. Chute
77f,s	Survey in Marketing (3 cred.; jr., sr.; prereq. Econ. 6-7)	I	TThS	1 VH	Mr. Vaile
86s	Office Management (3 cred.; jr., sr.; prereq. Econ. 6-7)	III	MWF	205VH	Miss Donaldson
88s	Advertising (3 cred.; jr., sr.; prereq. B.A. 77 and Psy. 56)	III	MWF	105VH	Mr. Vaile
89f,w	Production Management (3 cred.; jr., sr.; prereq. Econ. 6-7 or equiv.)	II	MWF	207VH	Mr. Filipetti
89s	Production Management (See 89f)	I	MWF	1 VH	Mr. Filipetti
91f,w,s	Tabulating Equipment Laboratory (1 cred.; jr., sr.; prereq. Econ. 26 and either 5 or B.A. 70)	VII-VIII	T	7VH	Ar
92s	Accounting Practice Laboratory (1 cred.; jr., sr., open to accounting majors only; prereq. Econ. 26)	VI-VII	T	307VH	Mr. Lund
93f	Accounting Laboratory (1 cred.; jr., sr., open to accounting and commercial education majors only; prereq. Econ. 26)	VI-VII	T	307VH	Mr. Lund
94s	Cost Accounting Laboratory (1 cred.; jr., sr.; prereq. B.A. 152 or concurrent)	V-VI	Th	307VH	Ar
95f	Auditing Laboratory (1 cred.; jr., sr.; prereq. B.A. 135 or concurrent)	VII-VIII	W	306VH	Mr. Miller
96w	Business Equipment Laboratory (1 cred.; jr., sr.; prereq. Econ. 26. Open to commercial education majors only)	VII-VIII	F	7VH	Ar
97f,98w,99s	Honors Course in Business Administration (Cred. ar.; jr., sr.; prereq. permission of the dean)	Ar	Ar	Ar	Ar
101f-102w†	Advanced General Economics (6 cred.; sr., grad.; prereq. Econ. 6-7)	III	TThS	207VH	Mr. Garver
101w-102s†	Advanced General Economics (See 101f-102w)	VI	MWF	1 VH	Mr. Stigler
109s	Business Policy (3 cred.; sr., grad.; prereq. B.A. 101-102)	IV	MWF	105VH	Mr. Reighard
112f‡	Business Statistics (3 cred.; jr., sr., grad.; prereq. Econ. 5 or B.A. 70)	VI	MWF	1 VH	Mr. Kozelka
112w‡	Business Statistics (See 112f)	I	TThS	207VH	Mr. Kozelka
112s‡	Business Statistics (See 112f)	III	MWF	1 VH	Mr. Kozelka
119	Correlation (3 cred.; jr., sr., grad.; prereq. Econ. 5 or B.A. 70) (Not offered)				
120	Index Numbers (3 cred.; jr., sr., grad.; prereq. Econ. 5 or B.A. 70) (Not offered)				
130s‡	Cost Accounting Survey (3 cred.; jr., sr., grad.; prereq. Econ. 25-26)	I	TThS	105VH	Mr. Ostlund
133s	Standard Costs (3 cred.; jr., sr., grad.; prereq. B.A. 130 or 153)	II	TThS	205VH	Mr. Ostlund

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$1 per quarter is charged for this course.

** Not open to students who have received credit in Economics 5.

SCHOOL OF BUSINESS ADMINISTRATION

No.	Title	Hour	Day	Bldg.	Instructor
134f	Income Tax Accounting (3 cred.; jr., sr., grad.; prereq. B.A. 139 or 151)	I	MWF	105VH	Mr. Reighard
135f	Auditing and Public Accounting (3 cred.; jr., sr., grad.; prereq. B.A. 139 or 151)	III	MWF	2VH	Mr. Reighard
136s	Internal Auditing and Accounting Control (3 cred.; jr., sr., grad.; prereq. B.A. 139 or 151)	III	MWF	6VH	Mr. Reighard
139f†	Advanced General Accounting (3 cred.; jr., sr., grad.; prereq. Econ. 25-26)	IV	MWF	1VH	Mr. Heilman
139w‡	Advanced General Accounting (See 139f)	II	MWF	1VH	Mr. Heilman
142f	Advanced Money and Banking (3 cred.; jr., sr., grad.; prereq. Econ. 3 and 6-7)	II	TThS	6VH	Mr. Myers
142w	Advanced Money and Banking (See 142f)	I	MWF	1VH	Mr. Myers
142s	Advanced Money and Banking (See 142f)	I	MWF	105VH	Mr. Myers
145	Foreign Exchange (3 cred.; jr., sr., grad.; prereq. B.A. 142) (Not offered)				
146w	Investments (3 cred.; jr., sr., grad.; prereq. B.A. 155)	II	TThS	221VH	Mr. Stehman
147	Bank Administration (3 cred.; jr., sr., grad.; prereq. B.A. 142) (Not offered)				
148	The Securities Market (3 cred.; sr., grad.; prereq. B.A. 146 and Econ. 149) (Not offered)				
150w†-151s††	Accounting Practice and Procedure (6 cred.; jr., sr., grad.; prereq. Econ. 25-26)	III	MWF	2VH	Mr. Heilman
152f-153w†	Cost Accounting (6 cred.; jr., sr., grad.; prereq. Econ. 25-26)	II	TThS	207VH	Mr. Ostlund
155f	Corporation Finance (3 cred.; jr., sr., grad.; prereq. Econ. 3 and 6-7)	III	MWF	1VH	Mr. Stehman
155w	Corporation Finance (See 155f)	III	TThS	105VH	Mr. Stehman
155s	Corporation Finance (See 155f)	II	MWF	207VH	Mr. Stehman
156f	Finance Management (3 cred.; jr., sr., grad.; prereq. B.A. 155)	II	MWF	221VH	Mr. Stehman
158s	Governmental Accounting (3 cred.; sr., grad.; prereq. B.A. 139 or 151)	I	TThS	221VH	Mr. Heilman
159	Public Utility and Railroad Accounting (3 cred.; sr., grad.; prereq. B.A. 139 or 151) (Not offered)				
165s	Economics of Public Utilities (3 cred.; jr., sr., grad.; prereq. Econ. 3 and 6-7)	VI	MWF	207VH	Mr. Garver
167f	Personnel Administration (3 cred.; jr., sr., grad.; prereq. B.A. 89 and Econ. 161)	II	MWF	1VH	Mr. Yoder
167w	Personnel Administration (See 167f)	I	TThS	1VH	Mr. Yoder
170w†	Motion Economy (3 cred.; jr., sr., grad.; prereq. B.A. 184)	VI	M	301VH	Mr. Thompson
	Lect.	V-VI	WF	301VH	
171s‡	Production Standards (3 cred.; jr., sr., grad.; prereq. B.A. 170)	VI	M	301VH	Mr. Thompson
	Lect.	V-VI	WF	301VH	
177	Foreign Trade (3 cred.; jr., sr., grad.; prereq. Econ. 176) (Not offered)				

† To receive credit for any part of this course a student must complete the parts preceding the dagger.

‡ A fee of \$1 per quarter is charged for this course.

No.	Title	Hour	Day	Bldg.	Instructor
180f-181w-182s	Senior Topics Courses (School of Business Administration seniors)				
	A. Accounting (6 cred.; fall and winter)	VI½-VII(f) I(w)	TTh TThS	207VH 307VH	Mr. Rotzel Mr. Reighard
	B. Business Finance (6 cred.; winter and spring)	VII	MWF	221VH	Mr. Stehman
	C. Marketing (9 cred.)	VI½-VII	TTh	105VH	Mr. Vaile(f,w), Mr. Chute(s)
	D. Personnel Management (9 cred.)	VI½-VII	TTh	221VH	Mr. Yoder
	E. Secretarial Practice (6 cred.; fall and winter)	IV	MWF	205VH(f) 208VH(w)	Miss Donaldson
	F. Statistics (9 cred.)	VI½-VII	TTh	6VH	Mr. Mudgett(f,s) Mr. Kozelka(w)
	G. § Production Management (9 cred.)	VII	MWF	205VH	Mr. Filipetti
	H. Insurance (3 cred.; spring)	IV	MWF	205VH	Mr. Graves
	I. Public Utilities and Transportation (6 cred.; fall and winter)	VI½-VII	TTh	205VH	Mr. Nightingale
	J. Office Management (3 cred.; spring)	VII	MWF	210VH	Miss Donaldson
183f,w,s	Practice Course (Cred. ar.; jr., sr., grad.; prereq. consent of adviser)	Ar	Ar	Ar	Members of the staff
184f§	Scientific Management in Industry (3 cred.; sr., grad.; prereq. Econ. 6-7)	VI	MWF	307VH	Mr. Filipetti
194s	Advanced Advertising Procedure (3 cred.; jr., sr., grad.; prereq. Econ. 5 and B.A. 88)	IV	MWF	2VH	Mr. Longstaff

§ Credit may not be received for both B.A. 180G and B.A. 184.

SCHOOL OF NURSING

1f,w,s	History of Nursing (1 cred.; no prereq.)				
	Fall		IX	F Ar	Miss Densford
	Winter		VIII	M Ar	
	Spring	Sec. 1	VIII	M Ar	
		2	4:00-5:00 p.m.	W Ar	
10f,w,s	Introduction to Nutrition (1 cred.; prereq. registration in School of Nursing)				
	Fall	Sec. 1	VIII	W Ar	Miss Thomas
		2	VIII	F Ar	and assistants
	Winter		VIII	F Ar	
	Spring		IX	T	
11w,s	Foods and Nutrition (3 cred.; prereq. Nurs. 10)				
	Winter	Sec. 1	VIII	Th Ar	Miss Thomas
		2	VIII	T Ar	and assistants
	Spring		VIII	Th Ar	
12f,w,s	Introduction to Nursing (3 cred.; prereq. registration in School of Nursing)				
	Fall	Sec. 1	IV	WF* Ar	Miss Boyle
		2	IV	M*	and assistants
		3	II	W*	
			VI	T*	
			IV	S*	
	Winter	Sec. 1	III	ThS* Ar	
		2	III	MW*	
	Spring	Sec. 1	III	T* Ar	
			II	F*	
		2	VII	MW*	
14w,s	Introduction to Medical Sciences (2 cred.; prereq. registration in School of Nursing for one quarter)				
			V	TTh	Mrs. Coe
15w,s	Nursing Arts (5 cred.; prereq. registration in School of Nursing for one quarter)				
					Hrs. and days ar. during clinical experience
16f,s	Nursing Arts (3 cred.; prereq. Nurs. 15)				
					Hrs. and days ar. during clinical experience
18w,s	Principles of Medical and Surgical Nursing (4 cred.; prereq. registration in School of Nursing for one quarter)				
			VI	TTh	Medical and Surgical staff, University Hospitals
			and 2 hrs. ar.		
19f,s	Principles of Medical and Surgical Nursing (4 cred.; prereq. Nurs. 18)				
			VI	MW	Medical and Surgical staff, University Hospitals
			and 2 hrs. ar.		
20f	Nursing in Conditions of the Skin (1 cred.; jr., sr. in School of Nursing; no prereq.)				
			4:00-5:00 p.m.	M	Dermatology staff, University Hospitals
25f,s	Principles of Orthopedics and Orthopedic Nursing (2 cred.; jr., sr. in School of Nursing; prereq. Nursing 18-19)				
			Ar	Ar	Dr. Pohl, Dr. Hall
35f,w,s	Principles of Communicable Disease Nursing (2 cred.; prereq. assignment to Communicable Disease service)				
			2:00-3:00 p.m.	TTh	Dr. Stoesser and assistants

* Plus two hours of lab. arranged.

No.	Title	Hour	Day	Bldg.	Instructor
36f,w,s	Principles of Tuberculosis and Tuberculosis Nursing (2 cred.; prereq. assignment to Glen Lake Sanatorium)	Hrs. and days ar. during experience			Miss Einerson and Medical staff, Glen Lake Sanatorium
41f,w,s	Principles of Pediatrics and Pediatric Nursing (3 cred.; prereq. Nursing 18)	3:00-4:00 p.m.	MWF		Pediatric staff, University Hospitals
42f,s	Principles of Nursing in Gynecology and Obstetrics (3 cred.; prereq. Nursing 18)	3:00-5:00 p.m.	TTh		Gynecology and Obstetric staff, University Hospitals, Minneapolis General Hospital and Miller Hospital
45w,s	First Aid (1 cred.; prereq. registration in School of Nursing)	VI, VII	M		Nursing Arts staff, University Hospitals, Minneapolis General Hospital, and Miller Hospital
48w,s	Principles of Care in Ear Conditions (1 cred.; jr., sr. in School of Nursing; prereq. Nursing 18)	Hrs. and days ar. during clinical experience			Dr. Tangen, Dr. Schwartz
49f,w,s	Principles of Care in Eye Conditions (1 cred.; prereq. assignment to ophthalmological wards)	Hrs. and days ar. during clinical experience			Miss Billings
50f,w	Professional Adjustments (2 cred.; prereq. senior in diploma program in School of Nursing)	VII	TTh		Miss Densford, Mrs. Randall
53f,w,s	Field Practice in Public Health Nursing (3 cred.; prereq. registration in degree program and assignment to Public Health Agency)	Hrs. and days ar. during experience			Miss MacMillan, Miss Nelson
54f,w	Introduction to Public Health (1 cred.; prereq. senior in diploma program in School of Nursing)	VIII	T		Mrs. Harris

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The Bulletin of the
UNIVERSITY of MINNESOTA

Instructions for Registration of
Advanced Standing Students

Fall Quarter, 1944



Volume XLVII, Number 27

July 3, 1944

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REGISTRATION INSTRUCTIONS

ADVANCED STANDING STUDENTS FALL QUARTER, 1944

COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS, September 25-29:

1. Report to the Students' Health Service, University of Minnesota Hospitals, for medical examination.
2. Report to Coffman Memorial Union, Ballroom Annex. Present admission certificate, record of advanced standing, medical examination appointment slip, and aptitude test card. (Aptitude test card not required if admission certificate shows test has been taken.) You will receive a Combined Class Schedule. Freshmen, sophomores, and adult special students will receive registration blanks. Juniors and seniors will receive registration blanks when they report for registration.
3. Report for registration:
Freshmen and sophomores (Junior College) 113 Folwell Hall.
Juniors and seniors (Senior College) 217 Folwell Hall.

Any student who is a candidate for a degree from the College of Science, Literature, and the Arts and who has at least 84 credits, even if he has not met all the group requirements (English, foreign language, social science, natural science), should try to register as a Senior College student unless the words "On Probation" are stamped on his record of advanced standing.

Adult special students, 219 Administration Building.

4. Report to 106 Folwell Hall to have your registration blank tallied.
5. Report to a fee statement table in Coffman Memorial Union, Ballroom Annex to turn in your registration blank. You will be required to present your admission certificate and will receive a statement of fall quarter fees.
6. Report to Bursar's Office, Administration Building, and pay fees before 4:30 p.m. Friday, September 29. Fees may be paid by mail and should be postmarked on or before September 29 to avoid late fees. When paying by mail, enclose your fee statement (all three copies) and your check or money order for the exact amount payable to the University of Minnesota. Envelopes should be addressed to the Bursar, University of Minnesota, Minneapolis 14, Minnesota.
7. Report to classes Monday, October 2. Receipt for payments received by mail will be placed in the post-office box assigned, the number of which will be posted in the Post Office on the ground floor of the Coffman Memorial Union about the third day after mailing. Students should save their fee receipts throughout the quarter and have them available to present to instructors and others upon request.

COLLEGE OF EDUCATION, September 28-29:

1. Report to the Students' Health Service, University of Minnesota Hospitals, for medical examination.
2. Report to Coffman Memorial Union, Ballroom Annex to receive registration material. You will be required to present your admission certificate, record of advanced standing, and medical examination appointment slip. You will receive a registration blank, and a Combined Class Schedule.
3. For special help or advice either before or after arrival, consult Miss Dora V. Smith, chairman of the New Students' Committee of the College of Education, Room 206, Burton Hall, Miss Marcia Edwards, Assistant Dean, or Miss Jean H. Alexander, Chairman of the Students' Work Committee. Advanced standing students should attend the College of Education convocation for new students in the auditorium of Pattee Hall at 9:30 Thursday morning, September 28, when the dean and student leaders will discuss problems of interest to prospective teachers, terms of teacher supply and demand.

4. Report to your major adviser for registration. Department major advisers' names and offices are listed on the back of your College of Education Information Blank. Your registration blank must be approved by an adviser.
5. Report to checking desk, outside 208 Burton Hall. Make an appointment to take the educational psychological examinations required of all students entering the College of Education. These examinations are usually given during the second week of the quarter.
6. Report to tally desk, 106 Folwell Hall (unless registration blank was stamped "tallied" at checking desk).
7. Report to fee statement table in Coffman Memorial Union, Ballroom Annex to turn in your registration blank. You will be asked to present your admission certificate. You will receive a statement of your fall quarter fees.
8. Report to Bursar's Office, Administration Building, and pay fees before 4:30 p.m. Friday, September 29. Fees may be paid by mail and should be post-marked on or before September 29 to avoid late fees. When paying by mail, enclose your fee statement (all three copies) and your check or money order for the exact amount payable to the University of Minnesota. Envelopes should be addressed to the Bursar, University of Minnesota, Minneapolis 14, Minnesota.
9. Report to classes Monday, October 2. Receipts for payments received by mail will be placed in the post-office box assigned, the number of which will be posted in the Post Office on the ground floor of the Coffman Memorial Union about the third day after mailing. Students should save their fee receipts throughout the quarter and have them available to present to instructors and others upon request.

Taking the psychological examinations and a C+ average in the major are required of all students as a prerequisite to the work in the senior year in the College of Education. All registrations in student teaching, or courses involving student teaching or faculty supervision, are tentative and subject to cancellation for all students who have not taken these examinations or maintained a C+ average in the major. Watch Official Daily Bulletin, *Minnesota Daily*, for announcement of time and place of examinations.

COLLEGE OF PHARMACY, September 28-29:

1. Report to the Students' Health Service, University of Minnesota Hospitals, for medical examination.
2. Report to Coffman Memorial Union, Ballroom Annex for matriculation, and obtain statement of fees. You will be required to present your admission certificate, record of advanced standing, and medical examination appointment slip.
3. Report to Bursar's Office, Administration Building, and pay fees.
4. Report to 101 Wulling Hall for registration. You will be asked to present your paid fee receipt before registering. Registration and payment of fees should be completed before 4:30 p.m. Friday, September 29, to avoid late fees.
5. Report to classes Monday, October 2. Students should save their fee receipts throughout the quarter and have them available to present to instructors and others upon request.

COLLEGE OF AGRICULTURE, FORESTRY, AND HOME ECONOMICS, September 28-29:

1. Report to the Students' Health Service, University of Minnesota Hospitals, for medical examination.
2. Report to 203d Administration Building, University Farm, to obtain registration material. You will be required to present your admission certificate, record of advanced standing, medical examination appointment slip, and aptitude test card. (Aptitude test card not required if admission certificate shows test has been taken.)

3. Report for registration:

Agriculture—Room 202, Administration Building, University Farm.

Forestry—Room 110, Green Hall, University Farm.

Home Economics—Room 110, Administration Building, University Farm.

Home Economics students follow this schedule for registration:

Juniors, seniors, and adult

special students..... September 28, 1 p.m. to 4:30 p.m.

Sophomores..... September 29, 8:30 a.m. to 12 m.

Freshmen..... September 29, 1 p.m. to 4:30 p.m.

4. Turn in approved registration blank at Room 301, Administration Building, University Farm to receive statement of fees.
5. Pay fees at Cashier's Office, University Farm, before 4:30 p.m. Friday, September 29, to avoid late fees.
6. Report to classes Monday, October 2. Students should save their fee receipts throughout the quarter and have them available to present to instructors and others upon request.

GENERAL COLLEGE, September 25-27, 29:

1. Report to the Students' Health Service, University of Minnesota Hospitals, for medical examination.
2. Report to Coffman Memorial Union, Ballroom Annex for matriculation and obtain registration material. You will be required to present your admission certificate and medical examination appointment slip.
3. Report to 200 Westbrook Hall for an appointment with the Transfer-in Committee. Your registration must be approved by this committee and your program must be approved by an adviser following your meeting with this committee.
4. Report to one of the fee statement tables in Coffman Memorial Union Ballroom Annex to turn in your registration blank and receive a statement of your fall quarter fees. When you turn in your registration blank, you will be asked to present your admission certificate.
5. Report to Bursar's Office, Administration Building, and pay fees before 4:30 p.m. Friday, September 29. Fees may be paid by mail and should be postmarked on or before September 29 to avoid late fees. When paying by mail, enclose your fee statement (all three copies) and your check or money order for the exact amount payable to the University of Minnesota. Envelopes should be addressed to the Bursar, University of Minnesota, Minneapolis 14, Minnesota.
6. Report to classes Monday, October 2. Receipts for payments received by mail will be placed in the post-office box assigned, the number of which will be posted in the Post Office on the ground floor of the Coffman Memorial Union about the third day after mailing. Students should save their fee receipts throughout the quarter and have them available to present to instructors and others upon request.

DENTAL HYGIENISTS, September 28-29:

1. Report to the Students' Health Service, University of Minnesota Hospitals, for medical examination.
2. Report to Coffman Memorial Union, Ballroom Annex for matriculation and obtain statement of fees. You will be required to present your admission certificate, record of advanced standing, and medical examination appointment slip.
3. Report to Bursar's Office, Administration Building, and pay fees.
4. Report to 106 Medical Sciences Building for registration. You will be asked to present your paid fee receipt before registering. Registration and payment of fees should be completed before 4:30 p.m. Friday, September 29, to avoid late fees.

5. Report to classes Monday, October 2. Students should save their fee receipts throughout the quarter and have them available to present to instructors and others upon request.

SCHOOL OF NURSING, September 26-29:

1. Report to the Students' Health Service, University of Minnesota Hospitals, for medical examination.
2. Report to Coffman Memorial Union, Ballroom Annex to obtain statement of fees. Advanced standing students present admission certificate, record of advanced standing, and medical examination appointment slip, and receive statement of fees.

Postgraduate students in nursing present admission certificate and medical examination appointment slip. Postgraduate students will receive a fee statement for the \$10 deposit required (exempt from tuition and incidental fee if in hospital service).

3. Take your fee statement to 109 Millard Hall and secure registration blank. (Registration blank will not be issued unless you present fee statement.) If you are a member of the U. S. Cadet Nurse Corps, you may leave fee statement in 109 Millard Hall. The School of Nursing will take care of the details involved in getting your fee statement through the proper channels. You may call for your receipt at 109 Millard Hall after October 5.

If you are not a member of the U. S. Cadet Nurse Corps, pay fees at Bursar's Office, Administration Building, before 4:30 p.m. Friday, September 29. Fees may be paid by mail and should be postmarked on or before September 29 to avoid late fees. When paying by mail, enclose your fee statement (all three copies) and your check or money order for the exact amount payable to the University of Minnesota. Envelopes should be addressed to the Bursar, University of Minnesota, Minneapolis 14, Minnesota.

4. Report to Room 15 Medical Sciences Building at 8:30 a.m. Thursday, September 28, for registration.
5. Report to classes Monday, October 2. Students should save their fee receipts throughout the quarter and have them available to present to instructors and others upon request.
6. Students who have not been enrolled in the University of Minnesota previously will find it helpful to keep the following appointments with the entering freshmen:

Wednesday, September 27	Opening Assembly	8:30 a.m.-9:20 a.m.—Northrop Auditorium
	College Time	9:30 a.m.-12:30 p.m.—15 Medical Sciences
Thursday, September 28	Lecture	8:30 a.m.-9:20 a.m.—Northrop Auditorium
Friday, September 29	Nurses Tea	4:00 p.m.—Powell Hall
Saturday, September 30	College Time	8:30 a.m.-12:30 m.—15 Medical Sciences

INSTITUTE OF TECHNOLOGY, September 28-29:

1. Report to the Students' Health Service, University of Minnesota Hospitals, for medical examination.
2. Report to Coffman Memorial Union, Ballroom Annex for matriculation and obtain statement of fees. You will be required to present your admission certificate, record of advanced standing, and medical examination appointment slip.

3. Report for registration. Present fee statement and English assignment card.

Architecture	318 Main Engineering Building
Engineering Curricula	101 Main Engineering Building
Chem., Chem. Eng., Physics	Library, Chemistry Building
Mines and Metallurgy	103 Appleby Hall

4. Report to Bursar's Office, Administration Building, and pay fees before 4:30 p.m. Friday, September 29. Fees may be paid by mail and should be postmarked on or before September 29 to avoid late fees. When paying by mail, enclose your fee statement (all three copies) and your check or money

order for the exact amount payable to the University of Minnesota. Envelopes should be addressed to the Bursar, University of Minnesota, Minneapolis 14, Minnesota.

5. Report to classes Monday, October 2. Receipts for payments received by mail will be placed in the post-office box assigned, the number of which will be posted in the Post Office on the ground floor of the Coffman Memorial Union about the third day after mailing. Students should save their fee receipts throughout the quarter and have them available to present to instructors and others upon request.

LAW, BUSINESS ADMINISTRATION, September 28-29:

1. Report to the Students' Health Service, University of Minnesota Hospitals, for medical examination.
2. Report to Coffman Memorial Union, Ballroom Annex for matriculation and to obtain statement of fees. Present admission certificate, record of advanced standing, and medical examination appointment slip.
3. Report to Bursar's Office, Administration Building, to pay fees.
4. Report to college office and complete registration by 4:30 p.m. Friday, September 29.

Law School.....	204 Law Building
School of Business Administration.....	127 Vincent Hall

5. Report to classes Monday, October 2. Students should save their fee receipts throughout the quarter and have them available to present to instructors and others upon request.

DENTISTRY—New students will not be admitted Fall Quarter, 1944.

MEDICAL SCHOOL, PUBLIC HEALTH, MEDICAL TECHNOLOGY, PHYSICAL THERAPY, X-RAY TECHNOLOGY, September 28-29:

1. Report to the Students' Health Service, University of Minnesota Hospitals, for medical examination.
2. Report to Coffman Memorial Union, Ballroom Annex for matriculation and to obtain registration material. Present admission certificate, record of advanced standing, and medical examination appointment slip.
3. Report for registration:

Medical School.....	136 Medical Sciences Building
Public Health.....	121 Millard Hall
Medical Technology.....	M-410, University Hospitals
Physical Therapy.....	W-300, University Hospitals
X-ray Technology.....	M-410, University Hospitals

4. Report to a fee statement table in Coffman Memorial Union, Ballroom Annex to turn in your registration blank and obtain statement of fees.
5. Report to Bursar's Office, Administration Building, and pay fees before 4:30 p.m. Friday, September 29. Fees may be paid by mail and should be postmarked on or before September 29 to avoid late fees. When paying by mail, enclose your fee statement (all three copies) and your check or money order for the exact amount payable to the University of Minnesota. Envelopes should be addressed to the Bursar, University of Minnesota, Minneapolis 14, Minnesota.
6. Report to classes Monday, October 2. Receipts for payments received by mail will be placed in the post-office box assigned, the number of which will be posted in the Post Office on the ground floor of the Coffman Memorial Union about the third day after mailing. Students should save their fee receipts throughout the quarter and have them available to present to instructors and others upon request.

UNIVERSITY COLLEGE, September 28-29:

1. Report to the Students' Health Service, University of Minnesota Hospitals, for medical examination.

2. Report to Coffman Memorial Union, Ballroom Annex for matriculation and to obtain registration material. Present admission certificate, record of advanced standing, and medical examination appointment slip.
3. Report to 148 Physics Building for registration.
4. Report to tally desk, 106 Folwell Hall.
5. Report to Window 15, Office of Admissions and Records, first floor, Administration Building, for fee statement.
6. Report to Bursar's Office, Administration Building, and pay fees before 4:30 p.m. Friday, September 29. Fees may be paid by mail and should be postmarked on or before September 29 to avoid late fees. When paying by mail, enclose your fee statement (all three copies) and your check or money order for the exact amount payable to the University of Minnesota. Envelopes should be addressed to the Bursar, University of Minnesota, Minneapolis 14, Minnesota.
7. Report to classes Monday, October 2. Receipts for payments received by mail will be placed in the post-office box assigned, the number of which will be posted in the Post Office on the ground floor of the Coffman Memorial Union about the third day after mailing. Students should save their fee receipts throughout the quarter and have them available to present to instructors and others upon request.

PUBLIC HEALTH NURSING, September 28-29:

1. Report to the Students' Health Service, University of Minnesota Hospitals, for medical examination.
2. Report to Coffman Memorial Union, Ballroom Annex for matriculation and to obtain registration material. Present admission certificate, record of advanced standing, and medical examination appointment slip.
3. Report to 121 Millard Hall for registration. If your fees are to be paid by the United States Public Health Service under Bolton-Bailey funds, secure authorization in 121 Millard Hall.
4. Report to a fee statement table in Coffman Memorial Union, Ballroom Annex, ground floor, to turn in your registration blank and obtain statement of fees.
5. If your fees are to be paid by the United States Public Health Service under Bolton-Bailey funds, present fee statement and authorization at Window 23, Office of Admissions and Records, Administration Building, for approval. Then turn in your fee statement at Bursar's Office, Administration Building, before 4:30 p.m. Friday, September 29.
6. If your fees are to be paid by the United States Public Health Service under Social Security State Stipend funds *secure a letter from your State Health Department* stating that your fees are to be paid by state stipend funds and present this letter together with your fee statement at Window 23, Office of Admissions and Records, Administration Building, for approval. Then turn in your fee statement at Bursar's Office, Administration Building, before 4:30 p.m. Friday, September 29.
7. If you are paying your own fees, report to Bursar's Office, Administration Building and pay fees before 4:30 p.m. Friday, September 29. Fees may be paid by mail and should be postmarked on or before September 29 to avoid late fees. When paying by mail, enclose your fee statement (all three copies) and your check or money order for the exact amount payable to the University of Minnesota. Envelopes should be addressed to the Bursar, University of Minnesota, Minneapolis 14, Minnesota.
8. Report to classes Monday, October 2. Receipts for payments received by mail will be placed in the post-office box assigned, the number of which will be posted in the Post Office on the ground floor of the Coffman Memorial Union about the third day after mailing. Students should save their fee receipts throughout the quarter and have them available to present to instructors and others upon request.

READ THE FOLLOWING ITEMS CAREFULLY—THEY MAY SAVE YOU UNNECESSARY DELAY AND INCONVENIENCE.

1. You are strongly advised to take the required tests and obtain your admission certificate before coming to the University.
If you have not written the tests, arrange to come to the University before the registration period begins, if possible, to write these tests.
Appointments for the tests may be made at 101 Eddy Hall at any time during the summer.
2. If you have not written the tests (if required) and it is not convenient for you to report earlier, the tests may be taken as follows:
 - a. College aptitude, English placement, and English theme (if either the first two or all three have to be taken)
Monday, September 25, 9:00 a.m. or 1:30 p.m., 150 Physics Building
 - b. English placement test and English theme
Monday, September 25, 9:00 a.m. or 1:30 p.m., 166 Physics Building
 - c. English theme
Monday, September 25, 9:00, 10:00, or 11:00 a.m., 133 Physics Building
3. If you have lost your admission certificate a duplicate may be obtained at Windows 18-20, Office of Admissions and Records, first floor, Administration Building, College of Agriculture, Forestry, and Home Economics students should obtain duplicate admission certificates from Office of Admissions and Records, Room 203d Administration Building, University Farm.
4. If you have not received an admission certificate, and have had your credits forwarded from the last school attended, report to the Director of Admissions, Office of Admissions and Records, first floor, Administration Building, for an admission certificate. College of Agriculture, Forestry, and Home Economics students should report to Office of Admissions and Records, Room 203d Administration Building, University Farm.
5. If you wish special advice before proceeding with your registration, members of the faculty will be available for consultation in their offices, and the Committee on Vocational Counseling will be available in Room 101 Eddy Hall.
6. Students who have had college work elsewhere are not required to attend Freshman Week activities. Those students who may wish to do so, however, are urged to attend.

Lecture: The University in Wartime

Northrop Auditorium, Wednesday, September 27, 8:30 a.m.

Lecture: The University's Counseling and Physical Fitness Program

Northrop Auditorium, Thursday, September 28, 8:30 a.m.

Other activities, including lectures on professions, library inspection, and campus tours will be announced in the new *Student Handbook* which may be obtained at Windows 2-5, Office of Admissions and Records, Administration Building on the registration days.

PLEASE NOTE ESPECIALLY

Do not report to Coffman Memorial Union, Ballroom Annex, without the credentials referred to in the instructions.

Do not report to the Director of Admissions for an admission certificate until after you have written the tests (if required) and at least 12 hours have elapsed to permit their being scored.

BULLETINS AND GENERAL INFORMATION MAY BE OBTAINED AT THE OFFICE OF ADMISSIONS AND RECORDS, FIRST FLOOR, ADMINISTRATION BUILDING.

If your credentials are not on file in the Office of Admissions and Records, immediate arrangements (by telephone or telegraph) should be made to have credits and honorable dismissal forwarded.

T. E. PETTENGILL, Recorder