


The Bulletin of the UNIVERSITY of MINNESOTA

General Information for the Year 1945-1946

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March 12, 1945

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UNIVERSITY of MINNESOTA

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The Challenge of the Postwar World

The University of Minnesota observed, last fall, a diamond jubilee which commemorated the opening of collegiate instruction. Founded in 1851—seven years before Minnesota became a state—the University since that time has met every crisis which has arisen and has demonstrated the wisdom and the vision of those early leaders who saw to it that higher education was accorded in this state the place it deserves in a democracy.

Pearl Harbor and the events which preceded it found the University well prepared for all demands that were made upon it. Over night it was able to shift from normal peacetime pursuits to intensive training programs for the armed services and for other war-related civilian activities. The war brought many problems: the virtual disappearance of civilian men students; the loss, for the duration, of hundreds of staff members to the armed services and to war-related governmental posts; a substantial reduction in enrolments. But the University carried on and discharged its responsibilities promptly and well.

Many months ago when it became apparent that victory would be won and that higher educational institutions would soon be returning to a more normal existence, committees of staff members began studying the problems which the coming of peace would bring. They estimated probable enrolments, made predictions of the size and source of the staff which would be required, and planned for the courses and subjects which would best fit civilians and returning servicemen and women to assume their places as well-trained, well-adjusted, contributing members of society.

As this is being written, victory has not yet been attained, altho it appears closer with each passing day. Yet for the University and for many men and women, the postwar world appears to have already arrived. The number of veterans enrolled in the University is steadily increasing. Collegiate enrolments had reached the bottom and began the upward climb last fall. The machinery which was established to meet postwar conditions is now in motion and its speed is accelerating. The University is geared for the job which lies ahead.

Today as never before higher education is recognized as an essential for those who are preparing for positions of leadership in agriculture, in industry, in business, and in the professions. Citizens of Minnesota are justly proud of the reputation of their University in teaching, in research, in state-wide service. Individuals, young and old, who come to the University with seriousness of purpose will find here a range of facilities in staff, in buildings, and in equipment, which only a large institution can provide and, at the same time, an attention to individual needs—mental, physical, spiritual, and recreational—which can be equalled by few institutions.



President

ORGANIZATION OF THE UNIVERSITY

GENERAL COLLEGE

UNIVERSITY 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

SCHOOL OF BUSINESS ADMINISTRATION

GRADUATE SCHOOL

MAYO FOUNDATION
SCHOOL OF SOCIAL WORK

UNIVERSITY EXTENSION SERVICE

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

BOARD OF REGENTS

The Hon. James F. Bell, Minneapolis - - - - -	1951
The Hon. Daniel C. Gainey, Owatonna - - - - -	1949
The Hon. Richard L. Griggs, Duluth - - - - -	1951
The Hon. George W. Lawson, St. Paul - - - - -	1951
The Hon. A. J. Lobb, Rochester - - - - -	1947
The Hon. E. E. Novak, New Prague - - - - -	1949
The Hon. A. J. Olson, Renville - - - - -	1949
The Hon. Albert Pfaender, New Ulm - - - - -	1947
The Hon. Ray J. Quinlivan, St. Cloud - - - - -	1951
The Hon. F. J. Rogstad, Detroit Lakes - - - - -	1949
The Hon. Fred B. Snyder, Minneapolis - - - - -	1947
The Hon. Sheldon V. Wood, Minneapolis - - - - -	1947

ADMINISTRATIVE OFFICERS

- Walter C. Coffey, M.S., LL.D., President
- Malcolm M. Willey, Ph.D., Vice President, Academic Administration
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- Theodore C. Blegen, Ph.D., L.H.D., Litt.D., Dean of the Graduate School
- Anne D. Blitz, M.A., LL.D., Dean of Women
- Ruth E. Boynton, M.S., M.D., Director of Students' Health Service
- William S. Carlson, Ph.D., Director of Admissions and Records (on leave)
- Harold S. Diehl, M.A., M.D., D.Sc., Dean of the Medical Sciences
- Everett Fraser, B.A., LL.B., Dean of the Law School
- William F. Holman, Ph.D., Supervising Engineer
- Richard L. Kozelka, Ph.D., Dean of the School of Business Administration
- William F. Lasby, D.D.S., Dean of the School of Dentistry
- Samuel C. Lind, Ph.D., D.Sc., Dean of the Institute of Technology
- Laurence R. Lunden, B.A., LL.D., Comptroller
- T. Raymond McConnell, Ph.D., Dean of the College of Science, Literature, and the Arts
and Chairman of Advisory Committee of General College
- Errett W. McDiarmid, Ph.D., Librarian
- Julius M. Nolte, B.A., LL.B., Director of University Extension
- Wesley E. Peik, Ph.D., Dean of the College of Education
- True E. Pettengill, M.S., Acting Director of Admissions and Records and Recorder
- Ernest B. Pierce, B.A., Field Secretary of the University and Secretary of the General
Alumni Association
- Charles H. Rogers, D.Sc., Dean of the College of Pharmacy
- Henry Schmitz, Ph.D., Dean of the College of Agriculture, Forestry, and Home Economics
- Thomas A. H. Teeter, B.S.(C.E.), Director of the Summer Session
- Edmund G. Williamson, Ph.D., Dean of Students

UNIVERSITY CALENDAR, 1945-46

1945

Fall Quarter

September	17	Monday	Extension registration, first semester begins
September	20	Thursday	Fall quarter fees due for students in residence spring quarter in the Institute of Technology, Business Administration, Dentistry, Dental Hygiene, Law, Nursing, Pharmacy, and Agriculture, Forestry, and Home Economics
September	24	Monday	Entrance tests ¹
September	24-25		Registration for Freshman Week for new students entering the freshman class
September	24-28		Freshman Week; Registration, ² College of Science, Literature, and the Arts, and General College
September	27-28		Registration, ² all colleges except Institute of Technology. Fall quarter fees due for all students in Science, Literature, and the Arts, General College, Education, Medical School, Medical Technology, Public Health, Physical Therapy, University College, and for new students in other undergraduate colleges
September	28	Friday	Registration, ² Institute of Technology
October	1	Monday	Fall quarter classes begin 8:30 a.m. ³ First semester extension classes begin ⁴
October	4	Thursday	Opening convocation 11:30 a.m.
October	6	Saturday	Last day for extension registration
October	11	Thursday	Senate meeting, 3:30 p.m.
October	13	Saturday	Last day for registration and payment of fees for the Graduate School, teachers in service, and adult special students
November	12	Monday	(Sunday, November 11, Armistice Day); holiday (except extension)
November	22	Thursday	Thanksgiving Day; holiday
December	13	Thursday	Senate meeting, 3:30 p.m.
December	14-15 and 17-20		Final examination period
December	20	Thursday	Fall quarter ends 6:00 p.m. ⁵ ; Commencement, 8:00 p.m.

Winter Quarter

December	27	Thursday	Winter quarter fees due for students in residence fall quarter in undergraduate colleges
1946			
January	4	Friday	Entrance tests ¹
January	4-5		Registration ² for new students in all colleges except Institute of Technology
January	5	Saturday	Registration for Institute of Technology. Registration and payment of fees for new students in all undergraduate colleges closes at noon
January	7	Monday	Winter quarter classes begin 8:30 a.m. ³
January	19	Saturday	Last day for registration and payment of fees for the Graduate School, teachers in service, and adult special students
January	28	Monday	Extension registration, second semester begins

February	9	Saturday	First semester extension classes close
February	11	Monday	Second semester extension classes begin ⁴
February	12	Tuesday	Lincoln's Birthday; holiday (except extension)
February	14	Thursday	Senate meeting, 3:30 p.m.
February	16	Saturday	Last day for extension registration
February	21	Thursday	Charter Day Convocation, 11:30 a.m.
February	22	Friday	Washington's Birthday; holiday (except extension)
March 15-16 and 18-21			Final examination period
March	21	Thursday	Spring quarter fees due for students in residence winter quarter in undergraduate colleges. Winter quarter ends 6:00 p.m.; Commencement, 8:00 p.m.

Spring Quarter

March	29	Friday	Entrance tests ¹
March	29-30		Registration ² for new students in all colleges except Institute of Technology
March	30	Saturday	Registration for Institute of Technology. Registration and payment of fees for new students in all undergraduate colleges closes at noon
April	1	Monday	Spring quarter classes begin 8:30 a.m. ³
April	13	Saturday	Last day for registration and payment of fees for the Graduate School, teachers in service, and adult special students
April	19	Friday	Good Friday; holiday (except extension)
May	9	Thursday	Senate meeting, 3:30 p.m.
May	16	Thursday	Cap and Gown Day Convocation
May	30	Thursday	Memorial Day; holiday (except extension)
June	7	Friday	Second semester extension classes close
June 7-8 and 10-14			Final examination period
June	9	Sunday	Baccalaureate service
June	14	Friday	Spring quarter ends 6:00 p.m.; Seventy-fourth annual commencement, 8:00 p.m.

Summer Session

June	17-18		Registration, ² first term. First term fees due for students in all colleges
June	19	Wednesday	First term Summer Session classes begin 8:30 a.m. ³
July	4	Thursday	Independence Day; holiday
July	25	Thursday	Commencement, 8:00 p.m.
July	27	Saturday	First term closes
July	29	Monday	Registration, ² second term. Second term fees due for students in all colleges
July	30	Tuesday	Second term classes begin 8:30 a.m. ³
August	31	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.

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 61. No student may register in the University after one week from the beginning of the quarter except 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 through Friday, December 21, and will resume Monday, January 7, 1946.

INFORMATION FOR MEN AND WOMEN WITH MILITARY SERVICE RECORDS*

CREDIT POLICIES

1. Application for credit for educational achievement during military service—Personnel *now on active duty* should submit the United States Armed Forces Institute Form No. 47 provided for this purpose. Form No. 47 may be obtained from your educational officer or from the United States Armed Forces Institute, Madison 3, Wisconsin.

Veterans of World War II *no longer on active duty* should submit a certified copy of W.D., A.G.O. Form 100, Separation Qualification Record; or Notice of Separation from the U. S. Naval Service, NavPers 553; or U.S.M.C. Report of Separation; or Notice of Separation from the U. S. Naval Service—Coast Guard, 553. In the case of Naval commissioned or warrant officers, the Officer's Qualification Record Jacket (NavPers 305), a certified copy thereof, or a statement from the Bureau of Naval Personnel covering the data desired should be submitted.

2. Basic or boot training—Upon receipt of certification, as provided in item 1, of completion of basic or boot training in the Armed Forces, credit will be allowed as follows providing such work does not duplicate courses already credited:

Military or Naval Science	6 credits
Physical Education	2 credits

3. Formal service courses and schools—Upon receipt of certification, as provided in item 1, credit as recommended by the American Council on Education, Guide to the Evaluation of Educational Experience in the Armed Services, will be allowed for Armed Services Formal Service Courses and Schools for enlisted men, officers, and officer candidates.

4. U.S.A.F.I. correspondence courses—Upon receipt of official certification from the Armed Forces Institute, Madison 3, Wisconsin, credit as recommended by the American Council on Education, Guide to the Evaluation of Educational Experience in the Armed Services, will be allowed for Armed Forces Institute college level correspondence courses on the basis of end of course test and/or subject examination.

5. College or university correspondence courses—Upon receipt of official transcript of record from the institution from which the correspondence course was taken (the procedure by which civilian course credit is transferred) credit will be allowed for college level correspondence courses taken from colleges and universities in co-operation with the Armed Forces Institute.

6. Credit for ASTP, V-12, and other programs conducted on college campuses—Upon receipt of official transcript of record from the institution where course was taken (the procedure by which civilian course credit is transferred) credit will be allowed on the same basis as approved for similar courses offered at the University of Minnesota. Credit will be allowed to the extent that work completed is applicable to the curriculum to be followed providing such work does not duplicate courses already credited.

7. Credit for other educational experiences—On the basis of Armed Forces Institute examinations or on the basis of advanced standing examinations that may be taken on the campus with approval of the Advanced Standing Committee of the college concerned, credit will be allowed for other educational experience such as independent or group study, or information acquired through travel to the extent that it is demonstrated that the equivalent of courses, not already credited, have been completed.

* See also Admission, pages 11-19.

ADMISSION PROCEDURES

Application for admission may be made either in person or by mail. Application blanks are available at the Office of Admissions and Records. **IMPORTANT: Application for admission, and high school, ASTP, V-12, Armed Forces Institute, and previous college records must be filed with the director of admissions and records.**

Non-high school graduates—Veterans who left high school before graduating may be considered for admission by examination. Application for admission and test authorization may be obtained from the director of admissions and records. Results of General Educational Development examinations given by the Armed Forces Institute will be accepted in lieu of university examinations normally required. Admission status and classification will be based on test results, high school record, educational experience in the Armed Forces, and judgment of counselor, college dean, and director of admissions after personal interview. Non-high school graduates who are accepted for admission may receive advanced standing to the extent that educational experience in the Armed Forces has been the equivalent of college courses. Non-high school graduates, because of tests and interviews required, must necessarily make application in person. Write to the director of admissions and records for application for admission and test authorization.

High school graduates who meet requirements for admission by certificate 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 graduates who do not meet requirements for entrance by certificate may be considered for admission by examination. 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.

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. Write to the director of admissions and records for application for readmission.

Applicants from other colleges and universities—Veterans who have attended other colleges or universities, 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). Write to the director of admissions and records for application for admission with advanced standing.

COUNSELING FACILITIES

The University, in recognition of the difficulty many veterans will have in becoming adjusted to student life, has established a special committee to supervise the counseling of veterans:

NAME	DIVISION	OFFICE
E. G. Williamson, Chairman	Dean of Students	213 Administration
Leigh Harden, Executive Secretary	Bureau of Veterans Affairs	203 Eddy Hall
Gordon V. Anderson	Student Counseling Bureau	101 Eddy Hall
True Pettengill	Office of Admissions and Records	105 Administration
Ruth Boynton	Students Health Service	Health Service
Blanche Moen	Library	210 Library
Donald G. Paterson	College of Science, Literature, and the Arts	114 Psychology
J. W. Buchta	University College	147 Physics

NAME	DIVISION	OFFICE
E. W. Johnson	Institute of Technology	133 Engineering
George C. Priester	College of Engineering and Architecture	208 Engineering
L. S. Heilig	School of Mines and Metallurgy	102 Appleby Hall
M. Cannon Sneed	School of Chemistry	245 Chemistry
Signe Holmstrom	General College	300 Wesbrook Hall
Marcia Edwards	College of Education	202 Burton Hall
J. O. Christianson	School of Agriculture	205 Administration (Agricultural Campus)
W. M. Sandstrom	College of Agriculture, Forestry, and Home Economics	202 Administration (Agricultural Campus)
Maynard Pirsig	Law School	111 Law
Shirley Miller	Medical School	218 Institute of Anatomy
William F. Lasby	School of Dentistry	149 Medical Sciences
Charles V. Netz	College of Pharmacy	306 Wulling Hall
R. L. Kozelka	School of Business Administration	313 Vincent Hall
William T. Heron	Graduate School	253 Psychology
Watson Dickerman	Extension Division	402 Administration

The committee members will be glad to talk over with veterans any problems that might arise. In the college in which he enrolls the veteran will be assigned to a special veterans' adviser, who will help him plan his course program and counsel him on non-scholastic matters. Every instructor and professor will also co-operate in easing the veteran's transition from military discipline to academic independence.

In addition to the counseling offered by committee members, advisers, and instructors, the following all-university agencies providing counseling of special kinds include the Student Counseling Bureau (see University Services to Students page 48), Speech Clinic, Students' Health Service, Bureau of Loans and Scholarships, Student Activities Bureau, Reading Clinic, Student Union, and others.

VETERANS' FACILITIES

Veterans Administration—The Veterans Administration has been designated by the government as the authorizing agency for training under the Servicemen's Readjustment Act of 1944 (G. I. Bill) and under the vocational rehabilitation act for veterans with service-connected disabilities. Veterans approved for training under either act 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. (Telephone: Dupont 7381.)

Department of Veteran Affairs, 512 Ryan Building, Seventh and Robert Streets, St. Paul, is the official agency for administration of the State Rehabilitation Law. Veterans who are legal residents of Minnesota should investigate the provisions of this state law for emergency aid and educational rehabilitation.

Veterans Information and Referral Service, 15 North Eighth Street, Minneapolis (Telephone: Atlantic 4344), is a co-operative venture of several federal, state, and Minneapolis agencies. Counseling and information are provided by trained interviewers. Discharge papers are duplicated without charge, other important documents at a nominal fee. Veterans are given aid in filling out applications and other papers.

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 follow.

I. Admission to Undergraduate Colleges

A. APPLICATION PROCEDURE

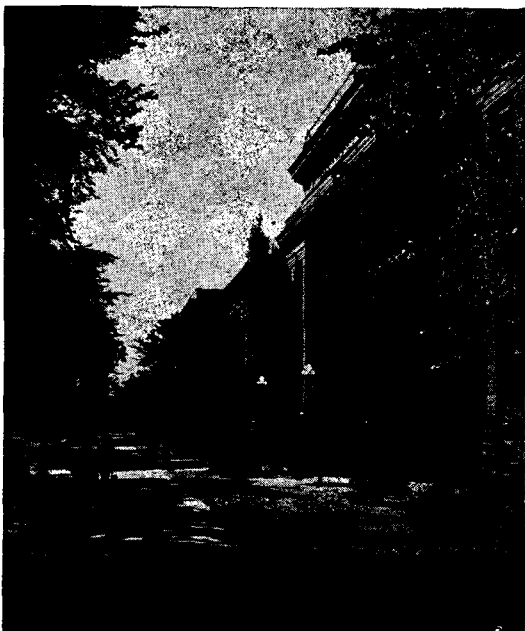
All inquiries, credentials, and applications for admission to the undergraduate colleges should be addressed to the Director of Admissions and Records, University of Minnesota, Minneapolis 14, Minnesota.

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 who have completed less than one year of college work must meet requirements for admission from high school and must submit high school credits in addition to their college transcript.

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

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

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), 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 cooperation 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



The Mall

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 report for registration.

B. TIME OF ENTRANCE

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.

Following are the registration dates:

Summer quarter, 1945

Registration	June 18-19
Classes begin	June 20

Fall quarter, 1945

Registration	September 24-28
Classes begin	October 1

Winter quarter, 1946

Registration	January 4-5
Classes begin	January 7

Spring quarter, 1946

Registration	March 29-30
Classes begin	April 1

The curricula in the College of Science, Literature, and Arts, Institute of Technology, College of Agriculture, Forestry, and Home Economics, College of Education, and General College have been arranged so that freshmen and advanced standing students may enter these colleges at the opening of any quarter.

Freshmen in Nursing (three-year course) may enter summer 1945 or fall or winter quarter.

Freshmen in Pharmacy and Dental Hygiene may enter only in the fall.

Advanced standing students except Nursing, Medicine, and Dentistry may enter at the opening of any quarter. Nursing students in the five-year course who have completed the required five quarters of preprofessional work may enter nursing either fall, winter, or spring quarter. Students who have completed premedical requirements may enter the Medical School in June, 1945, or March, 1946. Students who have completed pre dental requirements may enter the School of Dentistry in September, 1945.

Admission to the following schools and colleges requires two or more years of pre-professional 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.

Professional School

Law School

Medical School

Preprofessional Course

Two years in Science, Literature, and the Arts

Two or more years in Science, Literature, and the Arts (for the duration of the war only—normal requirement three or more years)

School of Dentistry	Two years in Science, Literature, and the Arts
College of Education	Two years in Science, Literature, and the Arts; or in Agriculture, or in Home Economics; or in the General College; or five quarters in Science, Literature, and the Arts and ten quarters in the School of Nursing. Exceptions are the special four-year courses of study in Art Education, Industrial Education, Kindergarten and Primary Education, Music Education, and Physical Education to which students are accepted by the College of Education directly from high school
School of Business Administration	Two years in Science, Literature, and the Arts; Agriculture, Forestry, and Home Economics; or the Institute of Technology

ALL FALL QUARTER FRESHMEN MUST REGISTER FOR FRESHMAN WEEK ON SEPTEMBER 24 OR 25 AND MUST BE IN ATTENDANCE THROUGHOUT THE FRESHMAN WEEK PERIOD CLOSING ON SEPTEMBER 28.

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.

C. REQUIREMENTS FOR ADMISSION

Admission to the University of Minnesota may be secured in one of four ways:

1. Admission by examination
2. Admission by certificate from high school
3. Admission with advanced standing
4. Admission as an adult special student

Each of these types of admission are treated separately in this order.

1. ADMISSION BY EXAMINATION

a. High School Graduates

High school graduates, regardless of subject-matter pattern in high school, may be considered for admission by examination. The examinations include:

1. College Aptitude Test
2. Test on proficiency in English
3. Such special placement tests as the school or college to which the applicant desires admission may prescribe

Most graduates of Minnesota high schools will have taken these tests in connection with the state testing program conducted in the high schools throughout the state each year.

In special cases, arrangements may be made to have the tests given near the applicant's home in order to save the expense of travel to the University. In such cases a \$5 fee is charged.

These tests are of the objective type, intended to measure aptitudes for college work rather than specific information in high school fields. No special preparation for the examinations is practicable.

b. Non-High School Graduates

With the concurrence of the Minnesota Council of School Executives and the Minnesota High School Principals Association, provision has been made to consider for admission non-high school graduates, men or women, who show evidence of sufficient maturity to adjust to college life and achieve satisfactorily in college if it can be demonstrated that it would be to their best interest to enroll in the University before the normal time of admission.

Such students may be considered for admission by examination.

The important part of this statement is that a student who is qualified will be admitted *only* if it can be demonstrated that it is to his best interest to enroll in the University. In this matter, decision will be based on the high school record, test results, and judgments, with respect to maturity and best interest, of the high school principal, the parents, an all-university counselor, the dean of the college, and the director of admissions. All cases where differences of opinion arise will be reviewed by the Board of Admissions.

The high school principal has an important part in the operation of the plan as great weight will be placed on his judgment of the student's maturity and general fitness.

The Student Counseling Bureau will be glad to furnish its services under the usual conditions to high school principals desiring assistance in forming judgment in doubtful cases.

Students desiring to apply for admission to the University before graduation from high school should arrange to come to the campus for a period of two or three days for testing and counseling several weeks in advance of the quarter they desire to enter. At that time application for admission, including high school credits and grades, and letters of recommendation from the principal and parents should be filed with the office of admissions and records.

2. ADMISSION BY CERTIFICATE FROM HIGH SCHOOL

Applicants must be graduates of an accredited high school and must satisfy the scholarship and subject-matter requirements of their college to be admitted.

Non-resident applicants must be in the upper half of their high school class or pass entrance tests to be considered.

The requirements for admission to the various colleges follow.

a. Definitions

In listing the requirements, reference is made to admissions groups, units, majors and minors.

1. Admissions group referred to include:

Group A: English

Group B: Foreign Languages (major or minor must be in one language)

Group C: History and Social Sciences (major must include at least 2 units in History; a minor, at least 1 unit in History)

Group D: Mathematics

Group E: Natural Sciences (for major or minor in this group, not more than 2 half-unit courses may be included)

Group F: Vocational and Miscellaneous Subjects

2. A unit means a one-year high school subject taken in Grades X, XI, and XII (senior high school).

3. A major means at least 3 units in one admission group.

4. A minor means at least 2 units in one admission group.

5. From either Admission Group B (foreign languages) or Admission Group D (mathematics), *but not from both*, one unit completed in Grade IX may be used toward a major or a minor. If this is done, however, the unit completed in Grade IX may not

be counted as part of the minimum of twelve units required from Grades X, XI, and XII nor as part of the units specified in Groups A through E.

b. Requirements

College of Science, Literature, and the Arts—

1. Applicants for this college must have a college aptitude rating of 40 or better to be admitted directly. Others will be given individual consideration and may be permitted to take special tests to qualify for admission. The college aptitude rating is the average of the student's rank in his high school graduating class and his rank on the college aptitude test. High school graduates in the upper 10 per cent of their class are admitted without examination.

2. At least 12 units must have been completed in Grades X, XI, and XII (senior high school) including at least 9 units in standard subjects (Groups A through E).

3. Either 1 major and 2 minors or preferably 2 majors and 1 minor must be presented including:

A major in Group A, English

A major or a minor in Group D, Mathematics

Institute of Technology—

1. Applicants must be in the upper 60 per cent of their high school graduating class. Others will be given individual consideration and may be permitted to take special tests to qualify for admission.

2. At least 12 units must have been completed in Grades X, XI, and XII (senior high school) including at least 9 units in standard subjects (Groups A through E).

3. Either 1 major and 2 minors or preferably 2 majors and 1 minor must be presented including:

A major or a minor in Group A, English

A major in Group D, Mathematics, including Higher Algebra and Solid Geometry.

All students who contemplate entering the Institute of Technology are urged to include in their high school program: chemistry; physics; ancient, modern, and American history; American government or civics; French, 2 units for students in architecture; German, 2 units for students in chemistry.

Students will be accepted without higher algebra or solid geometry or both. Such students must register for and complete these courses during their first quarter. No university credit is given for either of these courses. To continue in the Institute of Technology, these deficiencies must be removed by the end of the first quarter.

College of Agriculture, Forestry, and Home Economics—For students entering any of the fields of this college, success and experience in high school mathematics and sciences are valuable assets.

Students presenting a unit of high school physics are not required in certain curricula to take an elementary course in college physics.

It is specially recommended to all students entering curricula in Agriculture or Forestry that majors or minors be taken in high school in Groups D and E.

Students in Forestry, Wildlife Management, Science Specialization, and Food Technology are urged to complete both higher algebra and trigonometry in high school.

Every prospective student in the curricula in Technical Agriculture and Agricultural Education is urged to obtain at least six months' practical experience on a farm before entering college. Those whose farm experience credentials are not satisfactory will be examined as to their familiarity with farm practices and farm experience, or such experience as may be considered equivalent will be required during the college course in

accordance with the results of these examinations. The State Department of Education requires that before certification a candidate for an agricultural high school teacher certificate "must have had at least two full years of farm experience after the age of sixteen or he shall have been born and reared on a farm until the age of sixteen."

Agriculture—Applicants who are in the upper 25 per cent of their high school graduating class may be admitted regardless of subjects taken in high school. It is nevertheless recommended that such students select high school courses to conform as nearly as possible with requirements for other students listed below.

1. Applicants who are below the upper 25 per cent of their high school graduating class must have completed at least 12 units in Grades X, XI, and XII (senior high school) including at least 9 units in standard subjects (Groups A through E). Eight units in standard subjects will be accepted provided one unit of senior high school agriculture is presented in Group F.

2. Either 1 major and 2 minors or preferably 2 majors and 1 minor must be presented including:

A major or a minor in Group A, English

A major or a minor in Group D, Mathematics, or one unit in Group D provided the student registers in one of the following curricula: Technical Agriculture, Agricultural Education, Agricultural Extension, and Agricultural Business Administration, and takes Higher Algebra in the freshman or sophomore year of college.

One unit in Group E or one unit in senior high school agriculture.

Forestry—Applicants who are in the upper 25 per cent of their high school graduating class may be admitted regardless of subjects taken in high school. It is nevertheless recommended that such students select high school courses to conform as nearly as possible with requirements for other students listed below.

1. Applicants who are below the upper 25 per cent of their high school graduating class must have completed at least 12 units in Grades X, XI, and XII (senior high school) including at least 9 units in standard subjects (Groups A through E).

2. Either 1 major and 2 minors or preferably 2 majors and 1 minor must be presented including:

A major or a minor in Group A, English

A major or a minor in Group D, Mathematics

One unit in Group E

Home Economics—Applicants who are in the upper 25 per cent of their high school graduating class may be admitted regardless of subjects taken in high school. It is nevertheless recommended that such students select high school courses to conform as nearly as possible with requirements for other students listed below.

1. Applicants who are below the upper 25 per cent of their high school graduating class must have completed at least 12 units in Grades X, XI, and XII (senior high school) including at least 9 units in standard subjects (Groups A through E). Eight units in standard subjects will be accepted providing one unit of senior high school home economics is presented in Group F.

2. Either 1 major and 2 minors or preferably 2 majors and 1 minor must be presented including:

A major or a minor in Group A, English

College of Education—Art Education, Elementary Education, Industrial Education, Kindergarten and Primary Education, Music Education, and Physical Education.

1. At least 12 units must have been completed in Grades X, XI, and XII (senior high school) including at least 9 units in standard subjects (Groups A through E).

2. Either 1 major and 2 minors or preferably 2 majors and 1 minor must be presented including:

A major in Group A, English

3. Applicants for Music Education must present in addition:

A major or a minor in Group D, Mathematics

4. Applicants for teacher training in other fields must meet requirements for admission to the College of Science, Literature, and the Arts where they will be registered during the first two years of the curriculum. For further details see College of Education Bulletin.

General College—There are no special requirements for admission to the General College. All graduates of accredited high schools may be admitted.

School of Nursing, three-year course—

1. Applicants must be not more than thirty-five years of age and must submit satisfactory evidence of physical and mental fitness and pass a satisfactory general medical examination by the University Health Service. References supplying satisfactory evidence of good character must also be submitted.

2. Applicants who are in the upper third of their high school graduating class and who have satisfactory aptitude ratings may be admitted providing other requirements are met; those in the middle third who pass the Nursing Entrance Tests may be admitted; those in the lowest third are advised not to enter but may take the Nursing Entrance Tests if desired.

3. At least 12 units must have been completed in Grades X, XI, and XII (senior high school) including at least 9 units in standard subjects (Groups A through E).

4. Either 1 major and 2 minors or preferably 2 majors and 1 minor must be presented including:

A major in Group A, English

A major or a minor in Group D, Mathematics

5. Applicants for the five-year course must meet requirements for admission to the College of Science, Literature, and the Arts where they will be registered during the first five quarters of the curriculum. For further details see School of Nursing Bulletin.

College of Pharmacy—

1. Applicants for this college must have a college aptitude rating of 40 or better to be admitted directly. Others will be given individual consideration and may be permitted to take special tests to qualify for admission. The college aptitude rating is the average of the student's rank in his high school graduating class and his rank on the college aptitude test. High school graduates in the upper 10 per cent of their class who have had 2 units of mathematics are admitted without examination.

2. At least 12 units must have been completed in Grades X, XI, and XII (senior high school) including at least 9 units in standard subjects (Groups A through E).

3. Either 1 major and 2 minors or preferably 2 majors and 1 minor must be presented including:

A major in Group A, English

A major or a minor in Group D, Mathematics

Course for Dental Hygienists—

1. Applicants for this college must have a college aptitude rating of 40 or better to be admitted directly. Others will be given individual consideration and may be permitted to take special tests to qualify for admission. The college aptitude rating is the average of the student's rank in his high school graduating class and his rank on the college aptitude test. Applicants are selected on the basis of scholarship, character, and general fitness. High school graduates in the upper 10 per cent of their class are admitted without examination.

2. At least 12 units must have been completed in Grades X, XI, and XII (senior high school) including at least 9 units in standard subjects (Groups A through E).

3. Either 1 major and 2 minors or preferably 2 majors and 1 minor must be presented including:

A major in Group A, English

3. ADMISSION WITH ADVANCED STANDING

Students who have completed one or more years of satisfactory work at another college* or university of recognized standing may be admitted with advanced standing. Students who have completed less than one year of college work must meet the requirements for admission from high school and must submit high school credits in addition to their college transcript. The form for submitting high school credits may be obtained at any Minnesota high school or from the Director of Admissions and Records, University of Minnesota, Minneapolis 14.

Applications for advanced standing should be made, if possible, at least two months before the quarter for which admission is desired. Application blanks may be obtained from the director of admissions and records.

Advanced standing is allowed to the extent that courses completed are acceptable to the University of Minnesota. The certified record of courses taken in other institutions including ASTP, V-12, and other Armed Forces College Training Programs must be upon the official transcript blank of the institution concerned and should include or be accompanied by a statement of honorable dismissal. Students who have attended more than one institution must submit a transcript of record from each.

To be admitted, *nonresident applicants* must have a "C" average at previous institutions attended. Each application for admission to a senior professional school or college from a nonresident of Minnesota should be accompanied by a \$5 credential examination fee. Senior professional schools are Medical School, School of Dentistry, Law School, College of Education, except courses admitting freshmen, and School of Business Administration. The fee is not refundable, but if the applicant enrolls within one year following the date of application, the \$5 payment will be credited to his tuition for the first quarter. Remittance should be in the form of check, bank draft, or money order, payable to the University of Minnesota. Please do not send cash.

Candidates wishing to gain advanced standing by examination are allowed examinations without charge, provided they are taken within six weeks after admission.

4. ADMISSION AS AN ADULT SPECIAL STUDENT

Persons of mature age (twenty-four years or older) and experience and persons who have received a Bachelor's degree who desire a special and limited course of study may be admitted to any college of the University as an adult special student.

Veterans under 24 years of age may be accepted as adult special students providing it is demonstrated that they have sound vocational objectives and the requisite ability.

Such applicants must submit the information called for on the regular application blank, and must obtain the recommendation of the dean of the college concerned and the approval of the director of admissions and records.

An adult special student may not be a candidate for a degree without meeting admission requirements. Adult special students may apply to the director of admissions for regular classification after one full year of work (45 credits) has been completed with C average.

II. Admission to the Graduate School

Any student with a Bachelor's degree or its equivalent from a recognized college or university may apply to the dean of the Graduate School for admission. An applicant of

satisfactory scholastic record whose Bachelor's degree was granted by an institution on the list of colleges and universities approved by the Association of American Universities will be admitted, with the approval of the major department concerned, for graduate work involving a major in that department.

The scholastic records of applicants from institutions other than those on the approved list of the Association of American Universities will be reviewed and the applicant may be admitted, with or without conditions. Such conditions as may be found necessary will be determined in each case by the dean and the department of the student's proposed major. If more than six additional prerequisite credits must be earned, the applicant may be asked to register as an adult special student in the appropriate undergraduate college.

An applicant who does not designate a major may be admitted to take work for which he is qualified, but if at a subsequent time he chooses a major he must meet the requirements of that department for acceptance to do major work.

An applicant whose scholastic record and qualifications are unsatisfactory will be refused admission to the Graduate School, but may be advised to register for a probationary period as an adult special student in the appropriate undergraduate college. Such an adult special student must complete successfully one quarter's work in courses acceptable for credit by the Graduate School before being permitted to transfer his registration to the Graduate School. Upon the successful completion of his probationary quarter the student may petition to transfer all work of graduate quality taken while registered as an adult special student to the records of the Graduate School. Residence credit in the Graduate School will be granted with such transferred credits.

College graduates who simply desire to take additional work of undergraduate character without a view to ultimate preparation for an advanced degree should not apply for admission to the Graduate School but should register as special students in the college giving the work.

All inquiries concerning admission to the Graduate School should be addressed to the dean. Applications for admission must be accompanied by official transcripts in duplicate of undergraduate work and single official transcripts of any graduate work that may have been taken. Applications should be sent to the dean of the Graduate School at least two weeks before matriculation.

Admission to the Graduate School does not admit a student to candidacy for a degree. Admission to such candidacy is contingent upon the ability of the student and the quality of his work in the Graduate School of the University of Minnesota. Admission to candidacy indicates a judgment by members of the graduate faculty that the student shows sufficient promise to be permitted to proceed towards a degree. Under no circumstances will a student be admitted to candidacy until he has been in residence for at least one quarter or one Summer Session and until he has removed any deficiencies which may have conditioned his admission to the Graduate School. The procedure in applying for candidacy will be found in connection with the description of the requirements for the various degrees announced in the Graduate School Bulletin which may be obtained upon request from the director of admissions and records.

COURSES AND DEGREES

Brief summarized statements of the courses of study offered by the University of Minnesota, together with the degree to which each leads, are listed below.

The University does not issue a complete catalog of courses in one volume but a full outline of each of these courses of study together with descriptions of the subject-matter courses which they include will be found in the announcement of the college or school in which the course of study is offered.

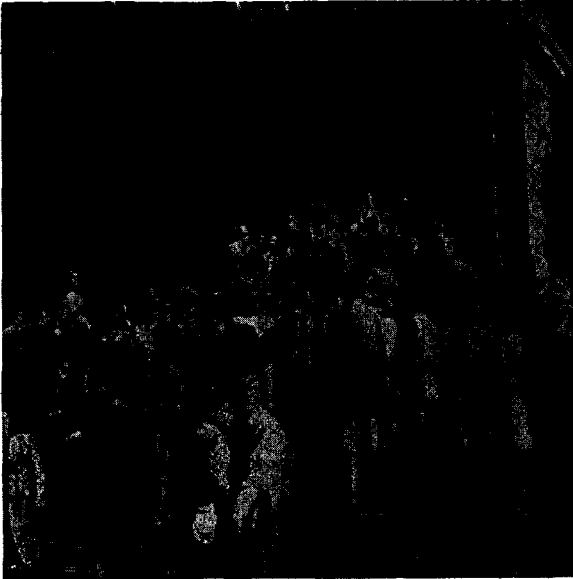
These announcements may be obtained by addressing the Director of Admissions and Records, University of Minnesota, Minneapolis 14, Minnesota.

Courses Open to Freshmen

COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS

The College of Science, Literature, and the Arts serves six main groups of students in the University: (1) students taking a four-year course as candidates for the degree of bachelor of arts or the degree of bachelor of science given by this college; (2) those taking the first four years of a course of study which require five or more years and which prepares them for a definite vocation or profession; (3) those taking a combined course consisting of three years of work in this college and courses leading to the degree of bachelor of arts after taking one or more years of work in a professional school; (4) those taking the minimum requirement of college work, from one to three years, for admission to a professional school; (5) those who want formal recognition for two years of college work; (6) those who are not candidates for any degree but want to study some of the courses offered by the college which meet their educational purposes.

1. **The four-year course leading to the degree of bachelor of arts or bachelor of science.**—The course of study is elective under certain broad limitations. It is expected that the four-year course will be a period of intellectual growth. Each student begins with relatively elementary studies in the freshman and sophomore years and goes on in the junior and senior years to more advanced and intensive studies. In the first two years the student is required to make suitable preparation for the advanced studies. At the beginning of the last two years, the student is expected to select a field of major interest and, with the help and approval of an adviser, to



Between Classes

plan his program of studies around this as a nucleus. Possible fields of specialization include: Anthropology, Architecture, Astronomy, Bacteriology, Biostatistics, Botany, Chemistry, Classics, Economics, English, Fine Arts, Geography, Geology and Mineralogy, German, History, Journalism, Linguistics and Comparative Philology, Mathematics, Music, Philosophy, Physics, Physiology, Political Science, Psychology, Romance Languages, Sociology and Social Work, Speech, Zoology. The student, however, who has a definite plan for his own college course, not involving specialization, may be given permission to pursue an individual program suited to his own needs and interests.

Altho the College of Science, Literature, and the Arts does not in general give intensive vocational training, students with a professional interest in music, journalism, library training, public health, or theological training may specialize as follows:

Art—Professional training in various branches of creative art is provided by a major in Fine Arts. This includes a special curriculum in commercial art and occupational therapy as well as regular courses in painting, drawing, and sculpture for those interested in becoming professional artists.

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, 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. With the aid and approval of their adviser, students may choose their courses from the many subjects of study offered by the college to freshmen and sophomores. The only specific requirements 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. 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: Aeronautical, Civil, Electrical, and Mechanical Engineering; Engineering Prebusiness, Engineering and Business Administration (5 years), and Architecture. Agricultural Engineering is offered in co-operation with the College of Agriculture, Forestry, and Home Economics. The School of Chemistry offers professional courses of study in Chemistry, Chemical Engineering, and 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 51 credits in physics, 34 credits in mathematics, and 39 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 Mining Engineering, Geological Engineering, Petroleum Engineering, and 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.

Technical Aide Curricula—Two-year course leading to Technical Aide certificate to prepare men for sub-professional positions in practical applied technical work in industry, in the contracting and construction field, public works, and in engineering offices. Courses are offered in the following fields:

Draftsman—Preparation for drafting room work in industries, engineering offices and offices of contractors, builders, etc.

Maintenance and Operation—Preparation for employment in the operation and repair of equipment or as aides in engineering offices of manufacturers of such equipment.

Production—Preparation for minor supervisory positions in manufacturing plants or as aides in production engineering offices.

General Construction—Preparation for office and field work in the building and contracting industries, railroad and highway construction and maintenance, public works departments, and engineering aides in the offices of consulting engineers.

Chemical Analyst—Preparation for laboratory position in industry and commercial laboratories.

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 engi-

neering 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 orientation tests given to entering freshmen during Freshman Week or at other times of 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

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

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 42, and Game Management Curriculum in Forestry, page 28.

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 of science degree 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



Agricultural Campus

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 degrees 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 degree 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 com-

pletion 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 25.

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 home-making.

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.

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.

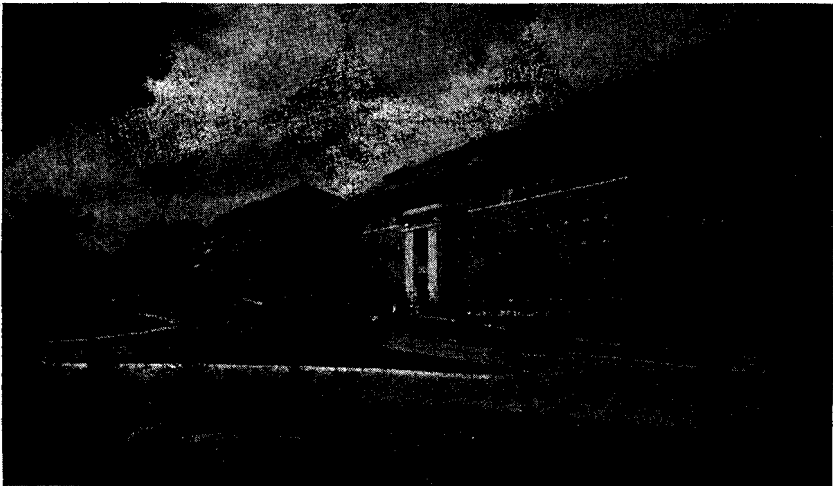
Wildlife Management Curriculum—The curriculum or pattern will be selected and built up with the aid of an adviser for the special vocational or professional objectives which the student has in mind. The work involves a wide range of activities including the management of upland game, big game, waterfowl, 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 42, and Game Management Curriculum in Forestry, page 28.

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 of science degree 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



Agricultural Campus

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)."

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pletion 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.

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HOME ECONOMICS

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Curriculum for General Home Economics—A college course in home economics offering a broad, general education designed especially for the important function of home-making.

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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, in industrial education, in home economics education, in agricultural education, and in rural 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



View from Northrop Auditorium

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. As well as 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 who do better-than-average work in the General College. 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 determining 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 approved college or 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, supervisory, and instructional 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-fourth 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 postgraduate 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 whenever there is a sufficient enrolment.

The school receives students from affiliating schools for class and clinical experience in such fields as medical, surgical, obstetric, pediatric, dietary, gynecologic, 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 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.

COURSES 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 backgrounds 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



Main Gate

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 under the accelerated program 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 under the

accelerated program. The course is difficult and only competent students should undertake it.

The School of Nursing—See page 32.

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 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.

For those whose time is more limited, a certificate in business administration is available after three years of work in a prescribed curriculum in pre-business and in the School of Business Administration.

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, Industrial 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. An alternative arrangement of courses for superior students in this combined curriculum may lead to a Bachelor's degree in engineering and a Master's degree in business administration.

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 offers training for several types of positions which require a knowledge in these two fields. 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 enter in September, 1945 and will graduate in August, 1948.

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. 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.

Under certain conditions, a limited number of credits of graduate work satisfactorily completed at other graduate schools may be transferred to the University of Minnesota toward the requirements for the Master's degree. For details as to these conditions, consult the Graduate School.

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. If registration warrants, a limited number of courses will be available in 1945 at the Biological Station at Itasca Park.

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



Coffman Union

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 morticians; it gives advice to schools and other organizations on the selection and production of plays; it administers the university radio broadcasting station for educational purposes; and it co-ordinates and supervises the library service and publication activities of the Key Center of War Information.

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.

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 enrolment.

NAVAL SCIENCE AND TACTICS

The Naval Reserve Officers' Training Corps provides a five (5) term course for selected, physically qualified male students. The selections are made from students in the Navy V-12 Program who have completed two (2) terms of sixteen (16) weeks each. A student who completes this course satisfactorily is eligible for a commission as ensign, United States Naval Reserve, provided he is 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 instructions 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.

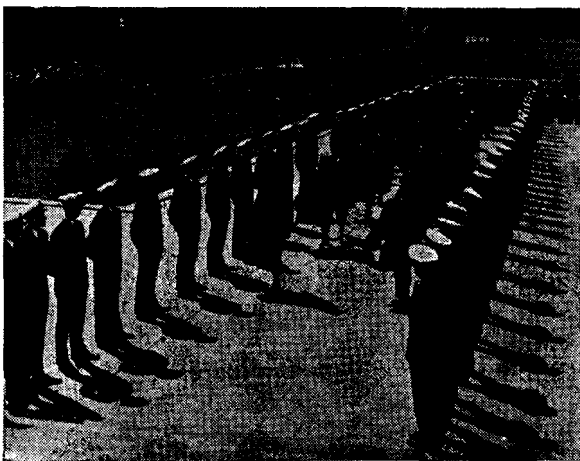
3. Residence requirement—The student must earn at least one year's credit in residence in this University. If the term of residence is only one year, that year must be the senior year; and in any case he must spend two quarters of the senior year in residence. This last requirement may be waived under 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. Extension courses (not correspondence study courses) completed in Minneapolis, St. Paul, or Duluth may apply toward the residence requirement. Work done on the campus of the University of Minnesota in Armed Forces College Training Programs is considered residence credit.

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.



Commencement

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., Education, Ag., F., & H.E., General, P.H.	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	28.95	28.95††	28.95	28.95	28.95	28.95	28.95	9.65
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	55.00	55.00	55.00	55.00	55.00	55.00	55.00	18.00
Room rent	130.00	130.00	130.00	130.00	130.00	130.00	130.00	45.00
Board	330.00	330.00	330.00	330.00	330.00	330.00	330.00	110.00
Books and instruments	45.00	45.00††	45.00†††	218.00*	50.00†	220.00‡	45.00	45.00
Total	\$679.95	\$700.95	\$730.95	\$969.95	\$693.95	\$1010.95	\$715.95	\$335.65

* 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 \$30.15, 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 59.

** Technical Aide Curriculum: tuition fee \$108.

Detailed information regarding fees and refunds will be found on pages 59-62.

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 57.

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 50.

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 \$10 to \$18 per month for each student while single rooms, somewhat more expensive, are from \$12 to \$28 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 Scholarships.

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.



Dancing at the Union

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 52.

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 213 Administration Building 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 Student's 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.

Convocations—At eleven-thirty each Thursday morning, except for holidays and examination periods, an established authority on some subject of general interest is presented at Northrop Memorial Auditorium to students, staff and faculty members of the University of Minnesota. Generally the man or woman who appears at convocation has a national or world reputation. Always the speaker or artist is chosen because of his or her ability to present subject material for which he or she is noted, in a manner which is informative and highly interesting. Not only do they offer a liberal education in adventure, art, foreign news, music, the dance, science, and world affairs, but they are at the same time highly entertaining. All classes are dismissed for convocation hour and the library is closed. It is intended that students, staff, and faculty attend these convocations. The general public is likewise invited. The convocations are always preceded by an organ recital. Both the organ recital and the convocation address are broadcast over WLB.

University Gallery—The gallery is located on the third and fourth floors of Northrop Auditorium where 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 and black and white original prints is maintained by the gallery for students. These pictures are for students' rooms and may be rented for 25 cents per quarter from Room 306 Northrop Auditorium.

Other prints which are unframed are available to teachers and students for classroom use.

In Room 308 current art magazines, books on various art subjects, and pictorial material are available to those who wish to use them there. This room and Room 306 are open in the afternoons from 1:30-5:00 and on Saturday mornings.

Music—The University is proud to be the home of the Minneapolis Symphony Orchestra of which Mr. Dimitri Mitropoulos is the 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. Season tickets may be purchased for this series of concerts at an exceptionally reasonable price. The office is located in Room 109 Northrop Memorial Auditorium.

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 Room 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 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, dance, aquatics, conditioning exercises, gymnastics, and recreational activities has its headquarters in the Norris Gymnasium for Women. The instruction program is based upon an activity guidance plan in which each woman student is helped to plan her own program

in terms of her interests, needs, and health status. Courses on beginning, intermediate, and advanced skill levels are available in most every sport in which college women have expressed an interest. These courses are open to any woman student registered in the University. A staff of eleven competent instructors make up the departmental personnel. The Women's Athletic Association, which is open to all registered women students, is a student-run organization under the sponsorship of the Department of Physical Education for Women. The program offers a wide variety of recreational activities, individual and team sports, including an extensive intramural schedule, and an opportunity for club participation in such activities as aquatics, dancing, and riding where special skill is a basis for membership. Students are offered opportunities for service and leadership experiences in directing and promoting this voluntary program. Facilities and equipment are available for use every afternoon and certain evenings. Expert leadership is provided for this voluntary participation program. The facilities include three gymnasiums, two swimming pools, large indoor sports room, and outdoor playing fields, as well as the 18-hole university 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.

An 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 Farm 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, 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 divers.

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 work is continuous; many students maintain themselves by various odd jobs 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-five to sixty 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 Bureau of Loans and Scholarships, to the Employment Bureau, or 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 regu-

larly 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.

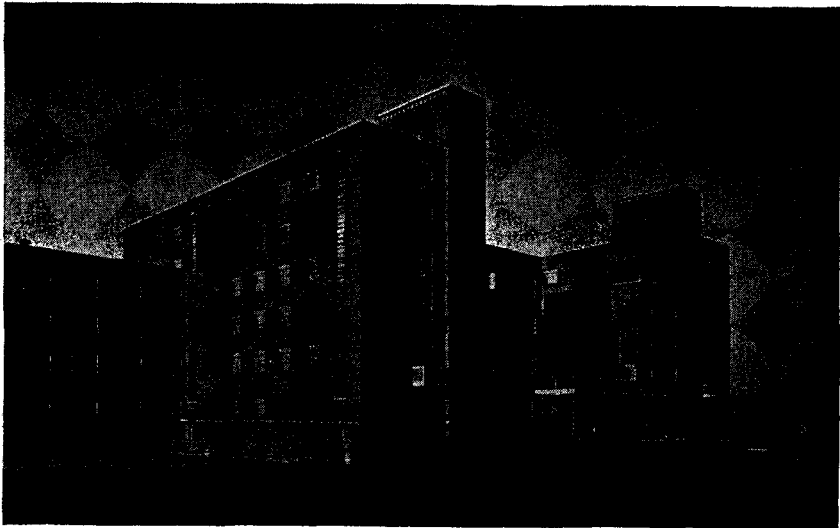
Certain funds are available for the rehabilitation of disabled persons through the State Department of Education, Division of Vocational Rehabilitation. Application for aid should be submitted to the Division of Vocational Rehabilitation, State Office Building, St. Paul 1, Minnesota.

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.

Housing Regulations—

1. Students, whether graduates or undergraduates, while attending the University must have their places of residence approved by the director of the Student Housing Bureau in the office of the dean of students. This includes all apartments, private dwellings, and other residences.



Comstock Hall

2. A room is engaged for a complete quarter unless otherwise specifically arranged with the householder. A copy of such special arrangements should be filed with the director of the Student Housing Bureau.
3. Notice must be given at least ten days before the close of a quarter if a student wishes to move at the end of the quarter. However, if a student withdraws from the University for any reason, he may terminate the written or verbal contract by giving one week's notice *in writing*.
4. Men and women students may not room in the same house.
5. Disputes which cannot be satisfactorily settled by the student and the householder should be referred to the director of the Student Housing Bureau.

Housing for women*—Because of war conditions, the capacity of Ada Comstock Hall, the newest dormitory, has been increased to accommodate 375 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 275 women and provides both single and double rooms.

Ten co-operative cottages, each in charge of a chaperon, 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, located on the Agricultural campus, is available for approximately 47 women students registered in the College of Agriculture, Forestry, and Home Economics. All residents of Meredith Hall are required to take their meals at the Agricultural campus cafeteria, but with the provision that those students who must be on the Main campus at noon, by previous approval of the agricultural cafeteria manager, may be privileged to take certain noon luncheon meals in Comstock Hall. Board and room will be paid for by the term, in advance. Inquiries regarding Meredith Hall should be addressed to J. O. Christianson, 205 Administration Building, University Farm, St. Paul 8, Minnesota.

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.

Housing for married graduate students—Thatcher Hall, providing living accommodations for thirty-six married students, with their families, registered in the Graduate School, is located on the University Farm campus. The address is 2024 Commonwealth Avenue, St. Paul.

There are both one-bedroom and non-bedroom quarters. Most of these are furnished, some unfurnished. The non-bedroom accommodations provide an in-the-wall bed in the living room and house two persons. The one-bedroom quarters, also with an in-the-wall bed in the living room, house four persons. All quarters include a dinette, kitchenette, and a private bathroom with adjoining built-in wardrobe and closet.

* 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 to J. O. Christianson, 205 Administration Building, University Farm, St. Paul 8, Minnesota.

Quarters are rented by lease on a twelve-month basis from September 1 to August 31. The lessee may be given the privilege of subletting, with the consent of the University. Therefore occasions might possibly arise when quarters would become available to new tenants before or after September 1.

Graduate students interested in residence at Thatcher Hall should communicate with the real estate manager, Room 12 Administration Building, regarding application, prices, and other details.

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. Light lunches and commuters dining service are available at the Farm Union located in the Old Dairy Hall building.

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 faculty members receive this publication, which also contains the Official Daily Bulletin, announcing matters with which the university community is required to be familiar. There are two other all-university student publications, namely, *Ski-U-Mah*, humor monthly, and the *Gopher*, which is the yearbook or student annual. *Technolog* is the publication of students in the Institute of Technology. Two publications primarily for off-campus circulation are issued without charge by the University through the News Service. *Minnesota Chats* is sent every three weeks during the college year to parents of students and other friends of the University. It serves as a periodical means of reporting and interpreting the University to the people of Minnesota. The *Calendar* is sent to a much more restricted list of those who wish to know about coming campus events. It is not available to students. The *Minnesota Alumnus*, formerly *Minnesota Alumni Weekly*, now appears as a monthly periodical. It is widely circulated. There is also a number of occasional publications.

Post office—An outgoing station for regular United States mail is maintained on both the Minneapolis and the Agricultural campuses. In addition the University maintains its own post-office services for the exchange of department and student communications. Each registered student who pays the incidental fee has his own post-office box. The Main campus post office is located in the basement of the Coffman Memorial Union. The post office for students in the College of Agriculture, Forestry, and Home Economics is located in the Administration Building on the Agricultural campus.

Transportation between campuses—Added to the regular transportation service of the Twin Cities, there is a free street car service for the use of students and faculty with classes on both campuses.

Automobile parking—To meet the needs of the students and faculty who must necessarily drive, the University has provided two distinct services to aid in the parking of their automobiles. Three underground garages provide storage at a nominal charge to faculty or students. They are located in the Northrop Memorial Auditorium, the Center for Continuation Study, and Coffman Memorial Union, respectively. The University has provided ground at strategically located points to serve as outdoor parking lots for automobiles. These are open daily and also at the time of special evening events at the University.

Typing and stenographic service—The University operates a central stenographic and typing service as well as other special services for the convenience of the students and faculty. Themes, theses, lists, or other manuscripts are solicited. Requests are handled through the Employment Bureau, Room 17 Administration Building. It is a cost service.



Pioneer Hall

APPENDIX

UNIVERSITY FEES

All university fees are subject to modification without notice

The university year, extending from October to June is divided into three terms called quarters. On the specified dates (see Calendar, pp. 6-7) prior to the opening of each quarter, the following fees are due from each student: (a) tuition, (b) incidental, and (c) such special fees and deposits as may be required.

Payment of fees cannot be deferred. Special attention is called to the paragraph on Privilege Fees (p. 61).

TUITION FEES

School or College‡	Quarter Fee		Credit Hour Fee*	
	Resident	Nonresident	Resident	Nonresident
General College	\$25.00	\$56.00	\$2.25	\$4.75
Science, Literature, and the Arts	25.00	56.00	2.25	4.75
Agriculture, Forestry, and Home Economics	25.00	56.00	2.25	4.75
Public Health	25.00	56.00	2.25	4.75
Education	25.00	56.00	2.25	4.75
Graduate School††	32.00	56.00	2.75	4.75
Institute of Technology	32.00	60.00	2.75	5.00
Technical Aide	36.00	72.00	3.00	6.00
Law School	42.00	71.00	3.50	6.00
Medical School and Clinical Graduate Work	77.00	150.00	6.50	12.50
Medical Technology, X-ray Technology	42.00	64.00	3.50	5.50
Physical Therapy	42.00	64.00	3.50	5.50
Dentistry	65.00	108.00	5.50	9.00
Dental Hygiene	27.00	56.00	2.25	4.75
Pharmacy	37.00	60.00	3.25	5.00
Business Administration	32.00	56.00	2.75	4.75
Library Instruction	42.00	56.00	3.50	4.75
University College	Tuition of college in which work is taken			
Nursing—Tuition (1st quarter) \$50 for both residents and nonresidents; (2nd through 10th quarters) \$20 for both residents and nonresidents; (11th, 12th, and postgraduates) no fee. All students in the School of Nursing pay the full quarterly tuition rate. Students repeating courses of the 1st quarter will be considered as attending 2nd quarter for fee purposes.				
Psychiatric Nursing—Tuition \$100 a quarter for both residents and nonresidents; \$9.65 incidental fee for 1st quarter only.				

* Students carrying less than the complete schedule of work may pay fees on a credit hour basis.

† All fellows, scholars, assistants, instructors, research associates, and members of the teaching staff and scientific bureaus and experiment stations giving 25 per cent or more of full-time service when regularly enrolled as students in the Graduate School or in the final year of the Master's degree (including agricultural technologist degree) curricula in undergraduate colleges are not required to pay tuition fees. This does not apply to commercial fellowships.

†† Tuition of \$5 per quarter is charged graduate students who have completed all course work and who are registered for thesis work only.

INCIDENTAL FEE

An incidental fee of \$9.65 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 \$10.05 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)	
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 59.

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,

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

‡ 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.

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 \$8.15 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.

Students who are called, or volunteer, for active duty with the armed forces of the United States as evidenced by presentation of order to report for induction before the end of the current quarter are entitled to refund of tuition on the following basis:

- a. Full refund for cancellation through the fifth week.
- b. One-half refund for cancellation during the sixth week and to the beginning of the last week of classes.
- c. No refund for cancellation during or after the last week of classes.

The refund of the incidental fee representing service charges will be on the normal basis.

NONRESIDENT STUDENTS

The following rules regarding fees of nonresident students applicable to both men and women, have been approved by the University:

1. No student shall be admitted to the University on a resident tuition basis unless he has been a bona fide domiciliary of the state for at least a year prior to admission. This requirement shall not prejudice the right of a student admitted on a nonresident basis to be placed thereafter on a resident basis provided he acquired a bona fide domicile of a year's duration within the state in the meantime. The fact alone of attendance at the University neither constitutes nor necessarily precludes the acquisition of such a domicile.

2. The responsibility of registering under proper residence is placed upon the student and it is the duty of each student at registration if there be any possible question of his right to residence fees, under the rules of the Board of Regents, to raise the question with the director of admissions and records.

3. For the purpose of determining, in cases that the director of admissions and records shall consider at all doubtful, the right of a student to a resident tuition basis, a board is hereby created, to consist of the director of admissions and records as a permanent ex-officio member, and four other members of the official staff of the University, to be appointed annually by the president with the power of reappointment. Three members of said board shall constitute a quorum to hold hearings, and decisions shall be made by majority vote of those present. The director of admissions and records shall act as chairman, except as he may designate another member to act in his stead.

4. In its decisions of cases the board shall be guided by the following basic rules:

- a. For a parent's domicile to be in Minnesota, he must have other connections with the state than the mere fact of presence with his children while attending the University.
- b. The domicile of a minor follows
 1. That of the parents or surviving parent; or
 2. That of the parent to whom custody of the minor has been awarded by a divorce or other judicial decree; or
 3. That of the parent with whom the minor in fact makes his home, if there has been a separation without a judicial award of custody, unless, by the law of the state in which the parents were domiciled at the time of the separation, the domicile of the minor, altho living with the mother, continues to follow that of the father; or
 4. That of an adoptive parent, where there has been a legal adoption, even tho the natural parents or parent be living; or
 5. That of a "natural" guardian, such as grandparent or other close relative with whom the minor in fact makes his home, where the parents are dead or have abandoned the minor.

- c. Where a general guardian was appointed by the state of the ward's domicile at the time of the appointment, the ward's domicile presumptively remains in that state. The appointment by a Minnesota court of a resident guardian of a minor not domiciled in this state at the time of the appointment has no effect upon the domicile of the ward.
 - d. A child emancipated by the law of his domicile has the same power as an adult to acquire another domicile. Marriage constitutes emancipation of minors, both male and female. The domicile of a minor female becomes that of her husband and so remains while she continues to live with him.
 - e. For either an adult or an emancipated minor to acquire a domicile in this state he must have permanently left this parental home, have acquired other interests in this state than attendance at the University, of a relatively permanent character, and have no present definite intent of removing therefrom as of a time certain in the relatively near future. Facts that may be considered evidentiary of domicile, altho not conclusively so, either singly or in combination, are:
 1. That the student is self-supporting, especially if by employment of a type offering a future in this state extending beyond his university course;
 2. That he has acquired a family of his own;
 3. That he has purchased, or leased on a year-round basis, what may be considered as a "home" establishment.
 - f. The following facts will not be accepted as in any sense evidentiary of domicile:
 1. A statement of intention to acquire a domicile in this state or the act of voting or registration for voting, made or done for the first time after a dispute has arisen concerning the resident status of the student.
 2. Employment by the University as a fellow, scholar, assistant, or in any position normally filled by students.
 - g. An out-of-state student enrolled for a full program, or substantially a full program, will be considered to be in Minnesota primarily for the purpose of attending the University, and will be presumed not to be here domiciled. Continued residence in Minnesota during vacation periods or occasional periods of interruption to the course of study does not of itself overcome the presumption.
 - h. In all cases where a student, who has come from another state, seeks to be placed upon resident tuition basis, the burden shall be upon him to establish convincing proof of facts showing the acquisition of a domicile in this state.
5. For the duration of this war the spouse and children of any person in active service in the armed forces of the United States stationed in Minnesota and accompanied by his or her family are deemed to acquire the status of resident in the state for tuition purposes immediately.
6. A child of Japanese-American parents who have been evacuated from their home shall be allowed resident fee privileges at the University until such time as the parents are permitted by the armed forces to return to their original place of residence or until they acquire domicile elsewhere.

ADMISSION GROUPS AND UNITS

A "unit" of high school work means not less than five recitations of forty minutes each week for a school year of thirty-six weeks. In such subjects as shop, drawing, cooking, typewriting, and similar courses, a "unit" means the equivalent of ten recitation periods a week for thirty-six weeks. Double laboratory periods will not be required from schools organized on a sixty-minute class period schedule.

A "major" means at least three units in one admission group.

A "minor" means at least two units in one admission group.

The admission groups and the minimum and the maximum number of units in any one subject that will be accepted for admission are as follows:

Group A: English—Composition and literature, one to three units. Not to exceed one unit of public speaking or journalism may be presented in partial satisfaction of these requirements.

Group B: Foreign languages—Requirements for a major in this group, three units in one language; for a minor, two units in one language.

French, one to four units

German, one to four units

Greek, one to four units

Latin, one to four units
 Scandinavian languages, one to four units
 Spanish, one to four units

Group C: History and social sciences—Requirements for a major in this group include at least two units in history; for a minor, at least one unit in history

History—

American, one-half or one unit
 English, one-half or one unit
 European, one or two units

Social sciences—

American government, one-half or one unit
 Commercial geography, one-half or one unit
 Elementary economics, one-half unit
 History of commerce, one-half or one unit
 Sociology, one-half or one unit

Group D: Mathematics

Elementary algebra, one unit
 Higher algebra, one-half or one unit
 Plane geometry, one unit
 Solid geometry, one-half unit
 Trigonometry, one-half unit
 Unified mathematics, two units

Group E: Natural sciences—For a major or minor in this group, not more than two half-unit courses may be included.

Aeronautical science, one or two units
 Astronomy, one-half unit
 Biology, one unit
 Botany, one-half or one unit
 Chemistry, one unit
 Geology, one-half unit
 Physics, one unit
 Physiography, one-half or one unit
 Physiology, one-half unit
 Science applied to health, one-half or one unit
 Zoology, one-half or one unit

Group F: Vocational and miscellaneous subjects, one-half to three units. In this group there may be included any subjects not specifically listed in Groups A, B, C, D, or E which have been accepted by the high school toward its diploma.

ACCREDITED MINNESOTA PREPARATORY SCHOOLS

Graduates of the following Minnesota state high schools will be admitted to the University of Minnesota without conditions, provided their credentials satisfy the specific requirements of the college to which entrance is desired:

Ada	Aurora	Big Lake	Buffalo	Clarissa
Adams	Austin	Bingham Lake	Buffalo Lake	Clarkfield
Adrian	Backus	Bird Island	Buhl	Clear Lake
Aitkin	Badger	Brwabik	Butterfield	Clearbrook
Akeley	Bagley	Blackduck	Byron	Cleveland
Alango, Angora	Balaton	Bloomington Prairie	Caledonia	Chimax
Albany	Barnesville	Bloomington	Cambridge	Clinton
Albert Lea	Barnum	Blue Earth	Campbell	Cloquet
Alberta	Barrett	Borup	Canby	Clover Valley,
Albion	Little Lake	Boyd	Cannon Falls	Two Harbors
Alden	Battle Lake	Boy River	Canton	Cloverton
Alexandria	Beardsley	Braham	Carlton	Cokato
Alvarado	Beaver Creek	Braimard	Cass Lake	Coleraine
Amboy	Becker	Brandon	Ceylon	Columbia Heights
Annandale	Belgrade	Breckenridge	Chandler	Comfrey
Anoka	Belle Plaine	Brewster	Chaska	Comstock
Appleton	Bellingham	Bricelyn	Chatfield	Cook
Argyle	Belview	Brookston	Cherry, Iron	Cotton
Arlington	Bemidji	Brooten	Chisago City	Cottonwood
Ashby	Benson	Browerville	Chisholm	Cromwell
Askov	Bertha	Browns Valley	Chokio	Crookston
Atwater	Big Falls	Brownston	Clara City	Crosby-Ironton,
Audubon	Bigfork	Bruno	Claremont	Crosby

Cyrus	Grove City	Luverne	Norwood-Young	Sebaka
Danube	Hackensack	Lyle	America	Shakopee
Dassel	Hallock	Lynd	Odessa	Sherburn
Dawson	Halstad	Mabel	Ogilvie	Silver Lake
Deephaven	Hancock	Madelia	Okabena	Sioux Valley,
Deer Creek	Hanley Falls	Madison	Oklee	Lake Park, Ia.
Deer River	Hanska	Magnolia	Olivia	Slayton
Delano	Harmony	Mahnomen	Onamia	Sleepy Eye
Delavan	Hastings	Mahtomedi	Orr	South St. Paul
Detroit Lakes	Hawley	Mankato	Ortonville	Spring Grove
Dilworth	Hayfield	High School	Osakis	Spring Valley
Dodge Center	Hector	Teachers College	Oslo	Springfield
Duluth	Henderson	High School	Osseo	Staples
Central	Hendricks	Mantorville	Owatonna	Starbuck
Denfeld	Hendrum	Maple Lake	Park Rapids	Stephen
Morgan Park	Henning	Mapleton	Parkers Prairie	Stewart
Eagle Bend	Herman	Marietta	Paynesville	Stewartville
East Chain,	Hermantown	Marshall	Pelican Rapids	Stillwater
Gukeen	Heron Lake	Maynard	Pemberton	Storden
East Grand Forks	Hewitt	Mazeppa	Pequot Lakes	Strandquist
Echo	Hibbing	McGrath	Perham	Taylor Falls
Eden Prairie	Hill City	McGregor	Peterson	Thief River Falls
Eden Valley	Hills	McIntosh	Pillager	Thomson Twp.,
Edgerton	Hinckley	Meadowlands	Pine City	Esko
Elbow Lake	Hitterdal	Medford	Pine Island	Tintah
Elgin	Hoffman	Melrose	Pine River	Toivola,
Elk River	Holdingford	Menasha	Pipestone	Meadowlands
Elkton	Holloway	Mentor	Plainview	Tower-Soudan, Tower
Ellendale	Hopkins	Middle River	Plummer	Tracy
Ellsworth	Houston	Milaca	Preston	Triumph
Elmore	Howard Lake	Milan	Princeton	Truman
Ely	Huntley	Milroy	Proctor	Twin Valley
Embarrass	Hutchinson	Minneapolis	Randolph	Two Harbors
Emmons	Indus	Boys' Vocational	Rapidan	Tyler
Erskine	International Falls	Central	Raymond	Ulen
Evansville	Isle	Edison	Red Lake	Underwood
Eveleth	Ivanhoe	Henry	Red Lake Falls	Upsala
Excelsior	Jackson	John Marshall	Red Wing	Verdi
Byota	Janesville	Miller Vocational	Redwood Falls	Vermdale
Fairfax	Jasper	North	Remer	Villard
Fairmont	Jeffers	Roosevelt	Renville	Virginia
Faribault	Jordan	South	Robbinsdale	Wabasha
Farmington	Karlstad	Southwest	Rochester	Wabasso
Felton	Kasota	Washburn	Rockford	Waconia
Fergus Falls	Kasson	West	Rose Creek	Wadena
Fertile	Keewatin	Minnesota	Roseau	Waldorf
Finlayson	Kelliher	Minnesota Lake	Rosemount	Walker
Fisher	Kellogg	Montevideo	Rothsay	Walnut Grove
Floodwood	Kennedy	Montgomery	Round Lake	Wanamingo
Foley	Kensington	Monticello	Royalton	Warrent
Forest Lake	Kenyon	Moorhead	Rush City	Warroad
Posston	Kerkhoven	High School	Rushford	Waseca
Franklin	Kiester	Teachers College	Russell	Watertown
Frazer	Kimball	High School	Ruthon	Waterville
Freeborn	Lake Benton	Moose Lake	Sacred Heart	Waubun
Frost	Lake Bronson	Mora	St. Charles	Wayzata
Fulda	Lake City	Morgan	St. Clair	Welcome
Garden City	Lake Crystal	Morris	St. Cloud	Wells
Gary	Lake Park	Morristown	St. Francis	Westbrook
Gaylord	Lake Wilson	Morton	St. James	West Concord
Gibbon	Lakefield	Mortley	St. Louis Park	Wheaton
Gilbert	Lakeville	Mound	St. Paul	White Bear Lake
Glencoe	Lakewood, Duluth	Mountain Iron	Central	Williams
Glenwood	Lamberton	Mountain Lake	Harding	Willmar
Glyndon	Lancaster	Murdock	Humboldt	Willow River
Gonvick	Lanesboro	Nashauk	John A. Johnson	Windom
Goodhue	Laporte	Nevis	Marshall	Winnebago
Goodridge	Le Center	New London	Mechanics Arts	Winona
Good Thunder	Le Roy	New Prague	Munroe	Winthrop
Graceville	Le Sueur	New Richland	Murray	Wolverton
Granada	Lester Prairie	New Ulm	Washington	Wood Lake
Grand Marais	Lewiston	New York Mills	Wilson	Worthington
Grand Meadow	Lindstrom-Center	Newfolden	St. Paul Park	Wrenshall
Grand Rapids	City, Lindstrom	Nicollet	St. Peter	Wykoff
Granite Falls	Litchfield	North Branch	Sanborn	Zumbrota
Grasston	Little Falls	North St. Paul	Sandstone	
Greenbush	Littlefork	Northfield	Sauk Centre	
Grey Eagle	Long Prairie	Northome	Sauk Rapids	

Graduates of the University High School and of the following private schools will be admitted to the freshman class under the regulations governing the admission of high school graduates. This list is correct as of February 1, 1945.

Austin	Graceville	St. Cloud
St. Augustin High School	St. Mary's Academy	Cathedral High School
Bird Island	Lake City	St. Joseph
St. Mary's High School	McCahill Institute	Convent of St. Benedict
Caledonia	Little Falls	St. Paul
Loretto High School	St. Francis High School	Academy of Concordia College
Chaska	Mankato	Breck School
Guardian Angel High School	Good Counsel Academy	College of St. Catherine
Cold Springs	Loyola High School	(Derham Hall)
St. Boniface High School	Minneapolis	Cretin High School
Collegeville	Academy of the Holy Angels	Nazareth Hall
St. John's University, High School Department	Blake School	St. Agnes High School
Crookston	De La Salle High School	St. Joseph Academy
Cathedral High School	Minnehaha Academy	St. Paul Academy
St. Joseph's Academy	Northrop Collegiate School	St. Thomas Military Academy
Duluth	St. Anthony High School	Summit School
Stanbrook Hall	St. Margaret's Academy	Visitation Convent
Faribault	Morris	Sleepy Eye
Bethlehem Academy	St. Mary's Academy	St. Mary's High School
St. Mary's Hall	New Ulm	Wabasha
Shattuck Military Academy	Holy Trinity High School	St. Felix High School
Fergus Falls	Owatonna	Waseca
Lutheran Bible School	Pillsbury Academy	Sacred Heart High School
Frontenac	Rochester	Winona
Villa Maria	Lourdes High School	Cotter High School
	Rollingstone	St. Thomas Cathedral High School
	Holy Trinity High School	

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 MINNESOTA COLLEGES

The following lists are corrected as of February 1, 1945.

1. Four-year colleges

Augsburg College, Minneapolis
 Carleton College, Northfield
 College of St. Benedict, 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, Winona
 St. Olaf College, Northfield
 St. Thomas College, St. Paul

2. Minnesota teachers colleges

Bemidji State Teachers College
 Duluth State Teachers College
 Mankato State Teachers College
 Miss Woods' Kindergarten—Primary Training School¹

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

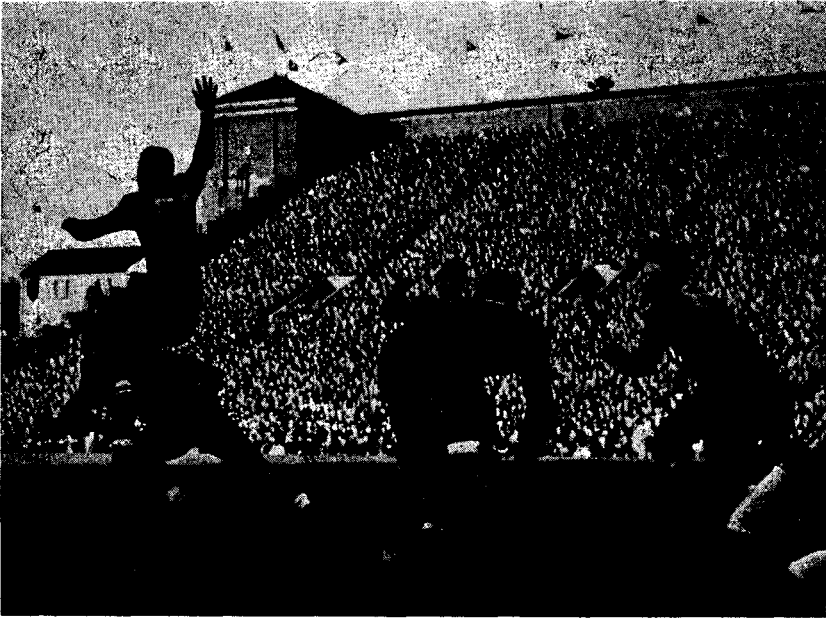
3. Junior colleges

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 will be admitted to the College of Education with 60 blanket credits provided they meet the standards for admission required of freshmen in the College of Science, Literature, and the Arts.

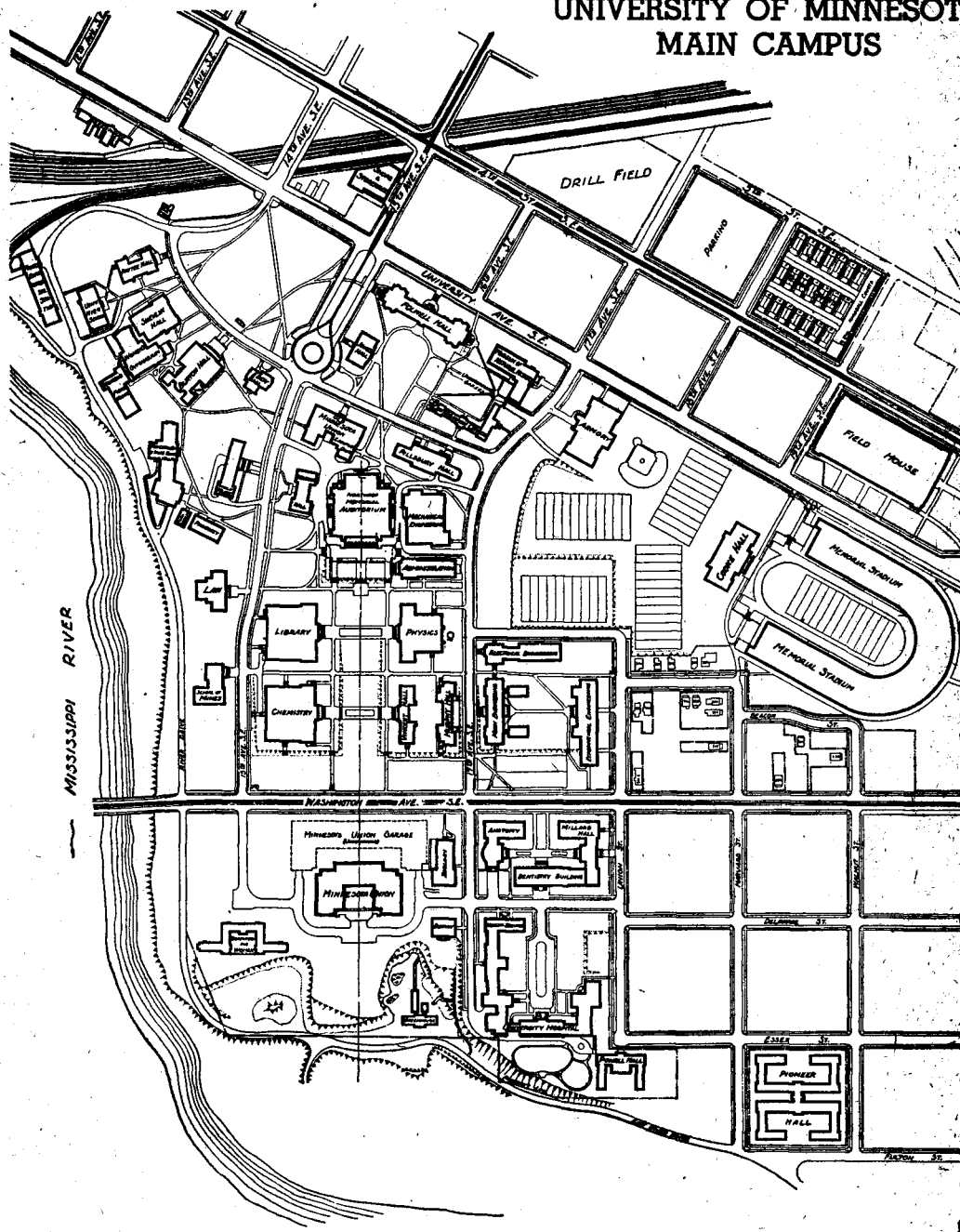
OTHER MINNESOTA SCHOOLS AND COLLEGES

Students who have attended schools and colleges not accredited to the University of Minnesota may be considered for admission by examination. Students from these colleges or from art, music, business, or other specialized schools may take advanced standing examinations on the basis of which credit will be allowed to the extent that it is demonstrated that the equivalent of regular university courses have been completed. The advanced standing examinations may be taken without fee during the first six weeks in residence. Request for advanced standing examination may be filed with the Students' Work Committee of the college concerned.



Football

UNIVERSITY OF MINNESOTA MAIN CAMPUS



MISSISSIPPI RIVER

DRILL FIELD

PARKING

FIELD HOUSE

HARMON STADIUM

MEMORIAL STADIUM

WASHINGTON AVE. S.E.

PILLSBURY UNION GARAGE

MINNESOTA UNION

LIBRARY

CHEMISTRY

PHYSICS

ARTS BUILDING

SCIENCE BUILDING

ESSEX ST.

PIONEER HALL

HALL

ACTON ST.

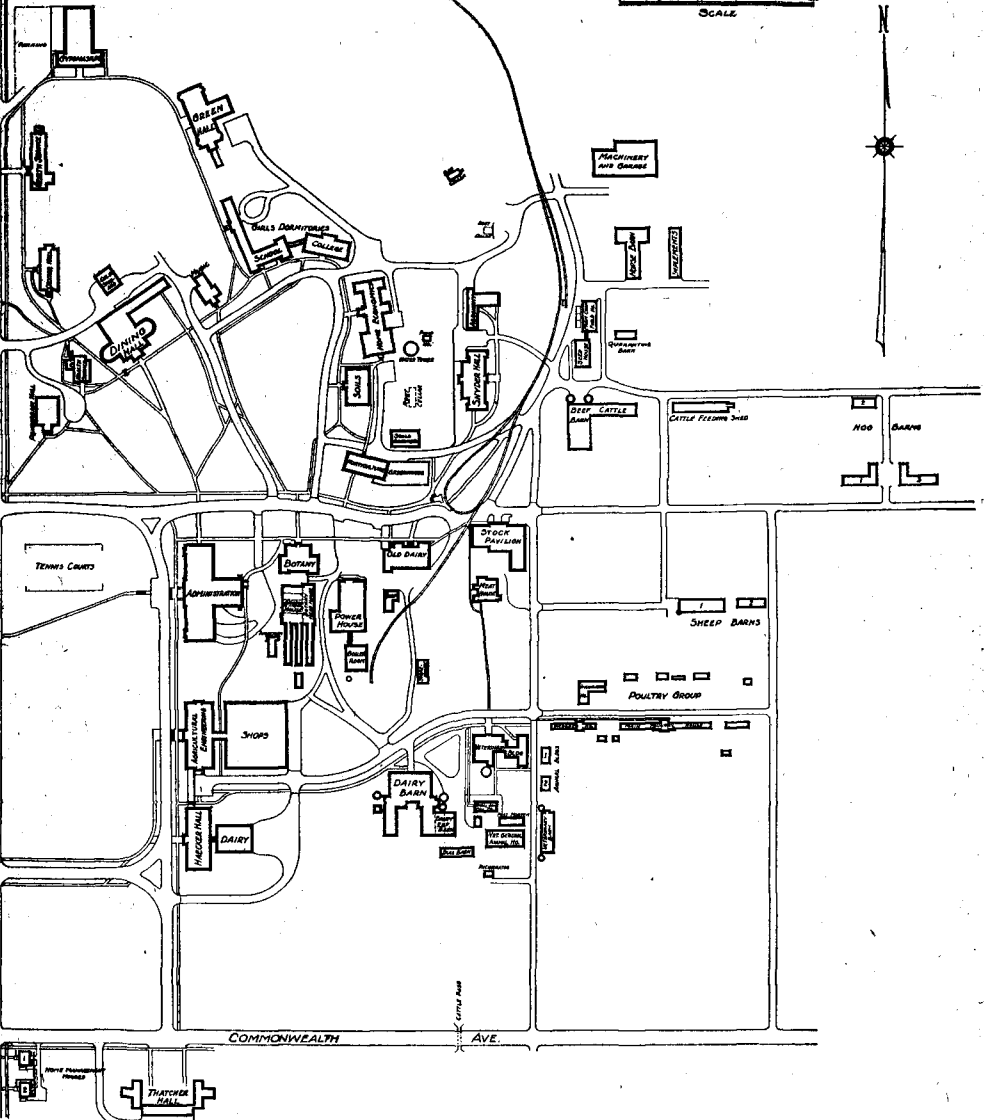
UNIVERSITY OF MINNESOTA AGRICULTURAL CAMPUS

SAINT PAUL



BERRY
FIELD HOUSE

NORTH CROPING CO. LANE



COMMONWEALTH

AVE.

THATCHER HALL

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The Bulletin of the UNIVERSITY of MINNESOTA

Combined Class Schedule for 1945-1946

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; Public Health Nursing; and Graduate School; 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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The Bulletin of the
UNIVERSITY of MINNESOTA

Combined Class Schedule for 1945-1946

Volume XLVIII, Number 21

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UNIVERSITY CALENDAR, 1945-46

1945

Fall Quarter

September	17	Monday	Extension registration, first semester begins
September	20	Thursday	Fall quarter fees due for students in residence spring quarter in the Institute of Technology, Business Administration, Dentistry, Dental Hygiene, Law, Nursing, Pharmacy, and Agriculture, Forestry, and Home Economics
September	24	Monday	Entrance tests ¹
September	24-25		Registration for Freshman Week for new students entering the freshman class
September	24-28		Freshman Week; Registration, ² College of Science, Literature, and the Arts, and General College
September	27-28		Registration, ² all colleges except Institute of Technology. Fall quarter fees due for all students in Science, Literature, and the Arts, General College, Education, Medical School, Medical Technology, Public Health, Physical Therapy, University College, and for new students in other undergraduate colleges
September	28	Friday	Registration, ² Institute of Technology
October	1	Monday	Fall quarter classes begin 8:30 a.m. ³
			First semester extension classes begin ⁴
October	4	Thursday	Opening convocation, 11:30 a.m.
October	6	Saturday	Last day for extension registration
October	11	Thursday	Senate meeting, 3:30 p.m.
October	13	Saturday	Last day for registration and payment of fees for the Graduate School, teachers in service, and adult special students
November	12	Monday	(Sunday, November 11, Armistice Day); holiday (except extension)
November	22	Thursday	Thanksgiving Day; holiday
December	13	Thursday	Senate meeting, 3:30 p.m.
December	14-15 and 17-20		Final examination period
December	20	Thursday	Fall quarter ends, 6:00 p.m. ⁵ ; Commencement, 8:00 p.m.

Winter Quarter

December	27	Thursday	Winter quarter fees due for students in residence fall quarter in undergraduate colleges
1946			
January	4	Friday	Entrance tests ¹
January	4-5		Registration ² for new students in all colleges except Institute of Technology
January	5	Saturday	Registration for Institute of Technology. Registration and payment of fees for new students in all undergraduate colleges closes at noon
January	7	Monday	Winter quarter classes begin 8:30 a.m. ³
January	19	Saturday	Last day for registration and payment of fees for the Graduate School, teachers in service, and adult special students
January	28	Monday	Extension registration, second semester begins

CALENDAR

February	9	Saturday	First semester extension classes close
February	11	Monday	Second semester extension classes begin ⁴
February	12	Tuesday	Lincoln's Birthday; holiday (except extension)
February	14	Thursday	Senate meeting, 3:30 p.m.
February	16	Saturday	Last day for extension registration
February	21	Thursday	Charter Day Convocation, 11:30 a.m.
February	22	Friday	Washington's Birthday; holiday (except extension)
March 15-16 and 18-21			Final examination period
March	21	Thursday	Spring quarter fees due for students in residence winter quarter in undergraduate colleges. Winter quarter ends, 6:00 p.m.; Commencement, 8:00 p.m.

Spring Quarter

March	29	Friday	Entrance tests ¹
March	29-30		Registration ² for new students in all colleges except the Institute of Technology
March	30	Saturday	Registration for Institute of Technology. Registration and payment of fees for new students in all undergraduate colleges closes at noon
April	1	Monday	Spring quarter classes begin 8:30 a.m. ³
April	13	Saturday	Last day for registration and payment of fees for the Graduate School, teachers in service, and adult special students
April	19	Friday	Good Friday; holiday (except extension)
May	9	Thursday	Senate meeting, 3:30 p.m.
May	16	Thursday	Cap and Gown Day Convocation
May	30	Thursday	Memorial Day; holiday (except extension)
June	7	Friday	Second semester extension classes close
June 7-8 and 10-14			Final examination period
June	9	Sunday	Baccalaureate service
June	14	Friday	Spring quarter ends 6:00 p.m.; Seventy-fourth annual commencement, 8:00 p.m.

Summer Session

June	17-18		Registration, ² first term. First term fees due for students in all colleges
June	19	Wednesday	First term Summer Session classes begin 8:30 a.m. ³
July	4	Thursday	Independence Day; holiday
July	25	Thursday	Commencement, 8:00 p.m.
July	27	Saturday	First term closes
July	29	Monday	Registration, ² second term. Second term fees due for students in all colleges
July	30	Tuesday	Second term classes begin 8:30 a.m. ³
August	31	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. 13, 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 61, Bulletin of General Information. No student may register in the University after one week from the beginning of the quarter except 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 through Friday, December 21, and will resume Monday, January 7, 1946.

DIRECTORY OF ADMINISTRATIVE OFFICES

ADMINISTRATION

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Malcolm M. Willey, Ph.D., L.H.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

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Russell M. Cooper, Ph.D., Assistant Dean for the Junior College and Chairman of General Studies	F106
Royal R. Shumway, B.A., Assistant Dean for Students' Work and Professor of Mathematics	Adm219

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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
Clifford P. Archer, Ph.D., Director of the Bureau of Recommendations and Associate Professor of Education	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

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Richard L. Kozelka, Ph.D., Dean of the School of Business Administration	VH127
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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., M.D., 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

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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 class 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
AgrBot, Agricultural Botany, University Farm	BFH, Botany Field House, University Farm

EXPLANATIONS

Bo, Botany	J, Jones Hall
BoG, Botany Greenhouse	L, Law Bldg.
Bot, Botany, University Farm	Lib, Library Bldg.
BrH, Brewster Hall, University Farm	LSpav, Livestock Pavilion, University Farm
Bu, Burton Hall	MB, Music Bldg., University Farm
C, Chemistry Bldg.	ME, Mechanical Engineering
CCS, Center for Continuation Study	MeH, Meredith Hall, University Farm
CH, Cooke Hall	MeS, Medical Sciences
CMU, Coffman Memorial Union	MEx, Mines Experiment Station
CoH, Ada Comstock Hall	MH, Millard Hall
CS, Carpenter Shop, University Farm	MNH, Museum of Natural History
CSP, Cold Storage Plant, University Farm	MS, Machinery Shop, University Farm
CWI, Child Welfare Institute	MSh, Meat Shop, University Farm
DCB, Dairy Cattle Barn, University Farm	Mu, Music Bldg.
DeH, Dexter Hall, University Farm	MurH, William J. Murphy Hall
DH, Dining Hall, University Farm	NGW, Norris Gymnasium for Women
DHD, Dining Hall Dormitory University Farm	NMA, Northrop Memorial Auditorium
E, Main Engineering	OD, Old Dairy, University Farm
EdH, Eddy Hall	OSL, Oak Street Laboratories
EE, Electrical Engineering	P, Pillsbury Hall
En, Engineering Bldg, University Farm	Pe, Pendergast Hall, University Farm
Ex, Experimental Engineering	PG, Poultry Group, University Farm
F, Folwell Hall	Ph, Physics
FCFH, Farm Crops Field House, University Farm	PH, Power House, University Farm
FdH, Field House	PiH, Pioneer Hall
G, Greenhouse (13th and University Ave. S.E.)	PoH, Louise M. Powell Hall
GH, Green Hall, University Farm	PP, Plant Pathology, University Farm
Gy, Gymnasium, University Farm	Psy, Psychology
HB, Horse Barn, University Farm	Pt, Pattee Hall
HE, Home Economics, University Farm	S, Stadium
HH, Haecker Hall, University Farm	SaH, Sanford Hall
HL, Hydraulics Laboratory, Hennepin Island	SB, Swine Barn, University Farm
HoB, Home Building, University Farm	SBH, State Board of Health
Hospitals	SH, Seed House, University Farm
CI, Cancer Institute	ShH, Shevlin Hall
EH, Eustis Hospital	SnH, Snyder Hall, University Farm
EMH, Elliot Memorial Hospital	So, Soils, University Farm
HS, Health Service	SS, Storehouse and Shops
PW, Psychiatric Ward	St, Stock Pavilion, University Farm
TM, Todd Memorial Hospital	TH, Thatcher Hall, University Farm
UD, University Dispensary	UHS, University High School
HP, Heating Plant	VB, Veterinary Barn, University Farm
Hr, Horticulture, University Farm	Ve, Veterinary, University Farm
HS, Health Service, University Farm	VH, Vincent Hall
IA, Institute of Anatomy	WeH, Wesbrook 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 Science 50 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 Science 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 Science (50-126) 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 should 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: 53s, 54s, 62f, 70f, 71s, 72s, 81f, 82w.

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
<i>Professional Courses</i>					
50f*	Libraries and Society (3 cred.; no prereq.)	IV	MWF	5Lib	Mr. Strout
51f	Origins of the Book (2 cred.; no prereq.)	Ar	Ar	5Lib	Mr. Strout
52w	History of Publishing (2 cred.; no prereq.)	Ar	Ar	5Lib	
53s	School Library Administration (3 cred.; prereq. Ed. 51A-B-C, or Ed.Ad. 263, or Pol.Sci. 121w)	II	MWF	5Lib	

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

LIBRARY INSTRUCTION

No.	Title	Hour	Day	Bldg.	Instructor
54s	Public Library Administration (3 cred.; prereq. Pol.Sci. 121w)	I	MWF	5Lib	
55s	College Library Administration (3 cred.; prereq. Pol.Sci. 121w or Ed.Ad. 253w)	II	MWF	Ar	Mr. Strout
56s*	Current Issues (1 cred.; required for degree in library science)	III	Th	5Lib.	
60f*	Sources of Information about Books (3 cred.; no prereq.)	III	MWF	5Lib	Mr. Shove
61f,*w,s	Library Practice (3 to 4½ cred.; prereq. 15 cred. in library science)	Ar	Ar	Ar	
62f*	Reference I (2 cred.; no prereq.)	III	TTh	5Lib	Mr. Strout
63w*	Reference II (3 cred.; prereq. 62)	IV	MWF	5Lib	Mr. Strout
64s	Reference III (2 cred.; prereq. 62,63)	I	TTh	5Lib	Mr. Strout
65w	National and Regional Bibliography (2 cred.; no prereq.)	III	TTh	5Lib	
70f*	Reading Guidance (3 cred.; no prereq.)	I	MWF	5Lib	
71s	Reading Guidance for Children (3 cred.; prereq. 70)	IV	MWF	3Lib	
72s	Reading Guidance for Adolescents (3 cred.; prereq 70)	III	MWF	3Lib	
73w	Reading Guidance for Adults (3 cred.; prereq. 70)	III	MWF	5Lib	Mr. Strout
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
81f*	Theory of Bibliography (2 cred.; no prereq.)	I	TTh	5Lib	Mr. Swank
82w*	Cataloging and Classification (4 cred.; prereq. 81f)	VII	MWThF	5Lib	
83s	Descriptive Cataloging (3 cred.; prereq. 82)	IV	MWF	5Lib	
84s	Subject Cataloging and Classification (3 cred.; prereq. 82)	III	MWF	5Lib	Mr. Swank
126w	Subject Bibliography (3 cred.)	I	MWF	5Lib	

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

§ 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.

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

Students enrolled in the Naval ROTC Unit should obtain a class schedule for the current term from the Naval ROTC office in the Armory.

PHYSICAL EDUCATION FOR MEN

Supervisor of Physical Education—Instructor Beise.

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 tests. 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

* Offered on the Main campus.

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

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.	Title	Hour	Day	Bldg.	Instructor
1f,2w,3s	Sports Education. Includes conditioning activities plus a variety of sports (1 cred.* per qtr.; all; no prereq.)				
	Sec. 1	II	MWF	215CH	Ar
	2	III	MWF		
	3	IV	MWF		
	4	V	MWF		
	5	VI	MWF		
	6	VII	MWF		
	7 Beginning Swimming	VI	MWF		
	8 Beginning Swimming	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 College of Education section in this bulletin.

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., $1\frac{1}{2}$ credits each for three quarters meeting three times a week; $\frac{1}{2}$ 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.
4. **School of Dentistry, Dental Hygienists**—Requirement: three quarters. No credit.
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 College of Education section in this bulletin.

* For colleges offering credit, see list above.

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, winter, spring)	III	MWF	51NGW	Ar
3	(winter, spring)	IV	MWF	51NGW	Ar
4	(fall)	VI	MWF	51NGW	Ar
5	(fall, spring)	III	TThS	51NGW	Ar
Swimming, Advanced Beginning¶					
Sec. 1	(fall)	IV	MWF	51NGW	Ar
2	(winter)	VIII	MWF	51NGW	Ar
3	(spring)	VI	MWF		
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)					
		IV	MWF	58NGW	Ar
Swimming, Advanced and Synchronized (spring)					
		VIII	MWF	58NGW	Ar
Swimming, War Functional (fall)					
		II	MWF	58NGW	Ar
Red Cross Life Saving					
Sec. 1	(fall)	IV	MWF	58NGW	Ar
2	(spring)	IX	MWF	58NGW	Ar
Preliminary Water Safety Instructors' Course (winter)**					
		VII	MWF	58NGW	Ar
Water Safety Instructors' Course (spring)					
		VI	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

* 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.

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

PHYSICAL EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
<i>Body Building—Continued</i>					
1f,2w,3s, 4f,5w,6s*‡	College Program in Physical Education—Continued				
	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)	I	MWF	153ANGW	Ar
<i>Individual Sports</i>					
	Archery, Elementary				
	Sec. 1 (fall)	III	MWF	60NGW	Ar
	2 (fall)	VI	MWF	60NGW	Ar
	3 (winter)	I	MWF	60NGW	Ar
	4 (winter, spring)	III	TThS	60NGW	Ar
	Archery, Intermediate (spring)				
		II	TThS	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
	Badminton, Intermediate				
	Sec. 1 (fall)	I	MWF	60NGW	Ar
	2 (winter)	IV	MWF	60NGW	Ar
	Bowling				
	Sec. 1 (fall, winter, spring)	II	MWF	201NGW	
	2 (fall, winter, spring)	III	MWF	201NGW	
	Fencing				
	Sec. 1 (fall)	IV	MWF	153NGW	Ar
	2 (winter)	II	TThS	153NGW	Ar
	3 (spring)	VI	MWF	153NGW	Ar
	Golf, Elementary¶				
	Sec. 1 (fall)	VIII	MWF	60NGW	Ar
	2 (winter)	III	MWF	60NGW	Ar
	3 (spring)	IV	MWF	60NGW	Ar
	4 (spring)	I	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
	Recreational Games				
	Sec. 1 (fall)	III	TThS		
	2 (spring)	VIII	MWF		
	Skiing (winter)				
		TTh	VIII-IX	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.

¶ Students must supply their own equipment.

No. Title Hour Day Bldg. Instructor

Individual Sports—Continued

1f,2w,3s, 4f,5w,6s*‡	College Program in Physical Education—Continued				
	Tennis, Elementary and Advanced Elementary				
	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)	4:00	T	Ar	Ar
	2 (Elementary)	4:00	Th	Ar	Ar
	3 (Intermediate and Advanced)	3:00	T	Ar	Ar
	4 (Intermediate and Advanced)	3:00	Th	Ar	Ar

Rhythms

	Ballroom Dance, Elementary				
	Sec. 1 (fall)	III	TThS	151NGW	Ar
	2 (winter)	III	TThS	151NGW	Ar
	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	153NGW	Ar
	Modern Dance, Elementary				
	Sec. 1 (fall, winter, spring)	IV	MWF	153NGW	Ar
	2 (fall, winter)	VIII	MWF	153NGW	Ar
	3 (spring)	VII	MWF	153NGW	Ar
	Modern Dance, Intermediate and Advanced (fall, winter, spring)				
		VI	MWF	153NGW	Ar
	Recreational Rhythms (winter)				
		III	TThS		

Team Sports

	Basketball (winter)				
	Sec. 1	I	MWF	153NGW	Ar
	2	VIII	MWF	153NGW	Ar
	Softball (spring)				
	Sec. 1	III	MWF	60NGW	Ar
	2	VIII	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.

PHYSICAL EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
<i>Team Sports—Continued</i>					
1f,2w,3s, 4f,5w,6s*‡	College Program in Physical Education—Continued				
	Volleyball				
	Sec. 1 (fall)	I	MWF	151NGW	Ar
	2 (fall, winter)	VI	MWF	151NGW	Ar
	Speedball (spring)	II	MWF	151NGW	Ar

Special Course for College of Education Students

Applied Physical Education (fall)	VI	TTh	151NGW	Ar
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Elective Courses

54s‡	Camp Leadership (2 cred.; no prereq.)	IV	MW	201NGW	Ar
		and 1 hr. ar.			
80s	Principles of Rhythm (2 cred.; prereq. some rhythm experience)	III	TTh	201NGW	Ar

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 Cooper in 106 Folwell Hall. Courses which carry graduate credit may not be taken earlier than the third quarter of the student's sophomore year.

AMERICAN STUDIES

Major advisers in the College of Science, Literature, and the Arts—Professors McDowell, Lowry Nelson, and Schmeckebeier; Associate Professor Tyler.

A Major in American Studies is offered to students under the general provisions of the *Curriculum in Liberal Arts* which are stated on pages 15-16 of the Bulletin of the College of Science, Literature, and the Arts for 1945-46. The Senior College courses which constitute this major will include 45 credits in courses concerned with civilization in the United States, as follows:

- A. 42 credits in approved courses in the four fields named below, including at least 9 credits in each field: History; Literature; Fine Arts and Philosophy; Social Sciences. (For a list of approved courses consult the pamphlet entitled "A Program in American Studies" or one of the major advisers.)
- B. 3 credits in American Studies 90-91-92.

(Prerequisites: History 20-21-22, "American History," or Humanities 10-11-12, "Humanities in the United States." It is recommended that the student take both courses.)

Senior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
90f-91w-92s	Proseminar in American Studies—Conferences and readings designed to correlate the students' work in American civilization (3 cred.; sr.; prereq. consent of instructor)	Ar	Ar	Ar	Mr. McDowell and others

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 (Open only to students registered in the School of Nursing)</i>				
	Lect.	A,B,C,D	I	ThS Ar	Dr. Kirschbaum
	Lab. and Rec. Sec. A		VIII, IX	Th Ar	Dr. Kirschbaum
	B		VIII, IX	T Ar	and others
	C		VI, VII	Th Ar	
	D		VI, VII	T Ar	
	<i>Schedule for 3w (Only Section E* is open to students not registered in the School of Nursing)</i>				
	Lect.	Sec. A,B,E	II	MW Ar	Dr. Kirschbaum
	Lab. and Rec. Sec. A		VIII, IX	T Ar	Dr. Kirschbaum
	B,E		VIII, IX	Th Ar	and others
	<i>Schedule for 3s (Only Section E* is open to students not registered in the School of Nursing)</i>				
	Lect.	Sec. A,B,E	I	TTh Ar	Dr. Kirschbaum
	Lab. and Rec. Sec. A		VIII, IX	T Ar	Dr. Kirschbaum
	B,E		VIII, IX	Th Ar	and others

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

40f	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
42s	The Growth of Cultures—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.)	VI	MTWThF	209EdH	Mr. Cline

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 17.

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

* Students who cannot take Section E 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.

No.	Title	Hour	Day	Bldg.	Instructor
80s	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. Wilford
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. Mandelbaum may not be given. He was on leave of absence in 1944-45 and may still be on leave in 1945-46. 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 Chipewya, 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. Cline
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
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†	<i>Cultural History of Egypt from the Earliest Times to the Sixteenth Century A.D.</i> (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) (<i>Not offered</i>)				
140§	Field Trip in Archeology (1 to 8 cred.; jr., sr., grad.; no prereq.)	Ar	Ar	Ar	Mr. Wilford
150-151-152†	<i>Selected Readings in Ancient History</i> —Early cultures of the Mediterranean Basin (The same as History 150-151-152) (9 cred.; sr., grad.; prereq. consent of instructor) (<i>Not offered</i>)				

* 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
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 Moham- medan 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 anthro- pology 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 re- flection 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)				
169f	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
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. Mandel- baum
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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.

1f-2w-3s	Introduction to Architecture (3 cred.; open only to students whose major subject is architecture; no prereq.)
4-5-6f,w,s	Graphic Representation (5 cred.; prereq. solid geometry. 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-IIf,w,s†§	Drawing and Painting, Grade II (6 cred., normally 2 cred. per qtr.; soph., jr., sr.; prereq. DP-I.)

† A fee of \$1 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
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 17.

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)
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 123, 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-II ^{f,w,s} †§	Modeling, Grade II (6 cred., normally 2 cred. per qtr.; jr., sr.; prereq. M-I)
SD-I†	<i>Stage Design</i> (4 cred., normally 2 cred. per qtr.; jr., sr.; no prereq.) (<i>Not offered</i>)
AD-II ^{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.

† 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.

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
11f*	Descriptive Astronomy (5 cred.; no prereq.)	IV	MTWF	133Ph	Mr. Luyten
		and one evening a week with the telescope, weather permitting			
11s*	Descriptive Astronomy (5 cred.; no prereq.)	IV	MTWF	133Ph	Mr. Luyten
		and one evening a week with the telescope, weather permitting			
20ff,w†,s‡	Astronomy for Celestial Navigation (5 cred.; no prereq.)	III	MTWF	358Ph	Mr. Luyten
		and one 3-hour laboratory period to be arranged			

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 17.

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
53s	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.

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

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

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

No.	Title	Hour	Day	Bldg.	Instructor
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
1s	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 17.

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
		VII, VIII	TTh	MH	Dr. Skinner
		III, IV	S	MH	
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)	VI	MWF	MH	Dr. Green, Dr. Evans
121f-122w†	Physiology of Bacteria (6 cred.; jr., sr., grad.; prereq. Bact. 53 and 8 cred. in org. chem. or biochem.)	III	TThS	MH	Dr. Halvorson
123s	Applied Bacteriology (3 cred.; jr., sr., grad.; prereq. 121-122)	III	TThS	MH	Dr. Halvorson
124f	Filterable Viruses (4 cred.; jr., sr., grad.; prereq. 102)	VI	TTh	MH	Dr. Green
	Lect.	VI	TTh	MH	Dr. Green
	Lab.	VII, VIII	TTh	MH	Dr. Evans

BIostatistics

See Public Health, page 98.

† 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.

BOTANY

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

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

Senior College Courses

Courses 50, 51, 52, 53, 54, 56 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 17.

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	

* 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.

No.	Title	Hour	Day	Bldg.	Instructor
51w†	General Plant Physiology (3 cred.; jr., sr.; prereq. general chemistry or consent of instructor)		1-2-3 or 4-5	and one quarter of	
	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	8Bo	Mr. Sharsmith
	Lab.	VII, VIII	MW	8Bo	
53f‡	Morphology of Thallophytes and Bryophytes (3 cred.; jr., sr.; prereq. 1-2-3 or 4-5)				
		I, II	MWF	8Bo	Mr. Butters
54w‡	Morphology of Pteridophytes and Spermatophytes (3 cred.; jr., sr.; prereq. 1-2-3 or 4-5)				
		I, II	MWF	8Bo	Mr. Butters
56f	Introduction to Mycology (3 cred.; jr., sr.; prereq. 9 cred. or permission of instructor)				
	Lect.	II	MW	107PP	Mr. Christensen
	Lab.	II, III	F		
108	<i>Pteridophytes</i> (5 cred.; sr., grad.; prereq. 54). (Not offered)				
110w	Gymnosperms (5 cred.; sr., grad.; prereq. 54)				
		Ar		Ar Ar	Mr. Butters
113f‡-114w‡-115s*‡	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)				
118w‡	Extranuclear Cytology (3 cred.; jr., sr., grad.; prereq. 1-2-3 or 4-5)				
		VI-VII	MWF	202Bo	Mr. Dahl
119f‡	Nuclear Cytology (3 cred.; jr., sr., grad.; prereq. 1-2-3, or 4-5 and an elem. course in genetics)				
		III-IV	MWF	202Bo	Mr. Dahl
120s‡‡	Research Methods in Cytology (3 to 5 cred.; jr., sr., grad.; prereq. 1-2-3 or 4-5 and consent of instructor)				
	Lect.	III	MWF	02Bo	Mr. Dahl
	Lab.	Ar	Ar	02Bo	Miss Hansen
121‡	<i>Morphogenesis</i> (3 cred.; jr., sr., grad.; prereq. 1-2-3 or 4-5 and consent of instructor) (Not offered)				
123w‡‡	Research Methods in Histology (3 to 5 cred.; jr., sr., grad.; prereq. 1-2-3 or 4-5 and consent of instructor)				
	Lect.	III	MWF	02Bo	Mr. Abbe
	Lab.	Ar	Ar	02Bo	Miss Hansen
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		
131f	Field Ecology (5 cred.; jr., sr., grad.; prereq. 50 or For. 2, 3, 4)				
		VI, VII, VIII	MWF	214Bo	Mr. Cooper
132w‡	Morphological Ecology (5 cred.; jr., sr., grad.; prereq. 50 or For. 2, 3, 4)				
		VI, VII, VIII	MWF	214Bo	Mr. Cooper
133s	Ecological Plant Geography (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. and elementary inorganic chemistry) (Not offered)				
141f	Physicochemical Principles and Measurements in Plant Physiology (3 cred.; jr., sr., grad.; prereq. 20 cred. in chem. or biochem. or consent of instructor)				
	Lect.	8:30-9:45	TTh	110Bo	Mr. Burr
	For laboratory see 146.				

* 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
142w	Photosynthesis and Other Effects of Radiation (3 cred.; jr., sr., grad.; prereq. same as for 141)				
	Lect.	8:30-9:45	TTh	110Bo	Mr. French
	For laboratory see 147.				
143s	Plant Metabolism (3 cred.; jr., sr., grad.; prereq. same as for 141)				
	Lect.	8:30-9:45	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. or consent of instructor)				
	Lect.	VI	MW	110Bo	Mr. French
	Lab.	VII, VIII, IX	MW		
165s‡	Introduction to Pollen Analysis (3 cred.; jr., sr., grad.; prereq. consent of instructor)				
		VI, VII	MWF	202Bo	Mr. Dahl
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 Students Only

201f-202w-203s	Research Problems in the Morphology of Vascular Plants				Mr. Butters, Mr. Abbe
205f-206w-207s	Research Problems in Taxonomy				Mr. Sharsmith
217f-218w-219s	Research Problems in Floristic Plant Geography				Mr. Sharsmith
221f-222w-223s	Research Problems in Ecology				Mr. Cooper, Mr. Lawrence
225f-226w-227s	Research Problems in Plant Physiology				Mr. Burr, Mr. French
229f-230w-231s	Research Problems in Cytology				Mr. Dahl
233f-234w-235s	Seminar (Students may register for one-hour seminar credit per quarter in any of the research subjects)				

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.)

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

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

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 6-7 or 9-10, 12; Analytical Chemistry 7; Organic Chemistry 54-55, 57-58 and 10 additional credits in chemistry.

Minor recommendation: Inorganic Chemistry 6-7 or 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

No.	Title	Hour	Day	Bldg.	Instructor
1f††-2w†††	General Inorganic Chemistry (4 cred. per qtr.; no prereq.; for architecture, pre dental, premedical, medical technology, nursing education, public health nursing, physical education for women, agriculture, forestry, and home economics students)				
1f-2w	(For architecture, agriculture, forestry, home economics, nursing education and public health nursing students)				
	Lect.	VI	MWF	100C	Mr. Barber
	Quiz	VII	WF	Ar	
	Lab.	VII, VIII, IX	M	210C	
1f-2w	(For pre dental, premedical, medical technology, and physical education for women students)				
	Lect.	VI	MWThF	225C	Mr. Pervier
	Quiz	VI	T	Ar	
	Lab.	VII, VIII, IX	T	290C	
3s*††††	Semimicro Qualitative Analysis (4 or 5½ cred.; prereq. 2)				
	Lect.	VI	MWF	100C	Mr. Barber
	Lab.†	VII, VIII, IX	MW	210C	
4f††-5w†††	General Inorganic Chemistry (8 cred.; for premedical, medical technology, pre dental, nursing education, public health nursing, agriculture, forestry, and home economic students; prereq. entrance cred. in chem.)				
4f-5w	(For premedical and medical technology students)				
	Lect.	VII	MWF	100C	Mr. Maynard.
	Quiz	VI	Th	100C	
	Lab.	VII, VIII, IX	Th	290C	
4f-5w	(For pre dental, nursing education and public health nursing students)				
	Lect.	VII	MWF	325C	Mr. Reyerson
	Quiz	VI	T	100C	
	Lab.	VII, VIII, IX	T	210C	
4f-5w	(For agriculture, forestry, and home economics students)				
	Lect.	VII	MWF	225C	Mr. Klug
	Quiz	Ar	Ar	100C	
	Lab.	VIII, IX	MW	110C	

* 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.

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

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No.	Title	Hour	Day	Bldg.	Instructor
6f†-7w††	General Inorganic Chemistry (10 cred.; no prereq. A continuation of this course is 12s)				
	Lect.	II	MWF	225C	Miss Cohen
	Quiz	I	Th	225C	
	Lab. Sec. 1	I, II	TS	210C	
		II	Th	210C	
2	II, III	Th	210C		
	I, II, III	T	210C		
9f†-10w††	General Inorganic Chemistry (10 cred.; prereq. entrance cred. in chem.)				
	Lect.	II	MWF	325C	Mr. Sneed
	Lab.	I, II	TThS	290C	
or I, II, III		TTh	290C		
9w†§-10s††	General Inorganic Chemistry (10 cred.; prereq.** entrance cred. in chem.)				
	Lect.	III	MWF	Ar	Miss Cohen
	Quiz	Ar	Ar	Ar	
	Lab.	VI, VII, VIII	TTh	210C	
10f†	General Inorganic Chemistry (2nd qtr. of 9-10. See 9f-10w)				
	Lect.	II	MWF	111C	Mr. Maynard
	Lab. Sec. 1	I, II	TThS	290C	
		2	I, II, III	ThS	
11f*††	Semimicro Qualitative Analysis (4 cred.; primarily for premedical and pre dental students; prereq. Course 2 or 5)				
	Lect.	IV	MWF	225C	Miss Cohen
	Lab.	VI, VII, VIII, IX	F	210C	
11s*††	Semimicro Qualitative Analysis (4 cred.; for premedical, pre dental, and medical technology students; prereq. 2)				
	Lect.	VII	MWF	225C	Mr. Maynard
	Lab.	VI, VII, VIII, IX	Th	290C	
11s*††	Semimicro Qualitative Analysis (4 cred.; for premedical, pre dental, and medical technology students; prereq. 5)				
	Lect.	VI	MWF	225C	Ar
	Lab.	VI, VII, VIII, IX	T	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	111C	Mr. Maynard
	Lab.	I, II, III	ThS	290C	
12s*††	Semimicro Qualitative Analysis (5 cred.; prereq. 7)				
	Lect.	II	MWF	111C	Miss Cohen
	Lab.	I, II	TThS	210C	
		or			
I, II, III		TTh	210C		

* 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.

** 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
12a*††	Semimicro Qualitative Analysis (5 cred.; prereq. 10)	II	MWF	325C	Mr. Sneed
	Lect.				
	Lab.	I, II, III	ThS	290C	
13f††	Semimicro Qualitative Analysis (5 cred.; prereq. 12)	VI	MWF	111C	Mr. Heisig
	Lect.				
	Lab.	VII, VIII, IX	WF	290C	
		VII, VIII	M		
13s††	Semimicro Qualitative Analysis (See 13f)	VI	MW	325C	Mr. Heisig
	Lect.				
	Quiz	VI	F	325C	
	Lab.	VII, VIII, IX	WF	290C	
		VII, VIII	M	290C	
101a	History of Chemistry (2 cred.; sr., grad.; prereq. Org. Chem. 52 or consent of instructor)	IV	T	215C	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
104w	Atomic Structure and the Chemical Bond (3 cred.; jr., sr., grad.; prereq. Anal. Chem. 1-2, Org. Chem. 55)	II	TThS	115C	Mr. Reyerson
105s	Co-ordination Compounds (3 cred.; jr., sr., grad.; prereq. Anal. Chem. 1-2, Org. Chem. 55)	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
120f	Crystal Analysis (3 cred.; jr., sr., grad.; prereq. Phys. Chem. 103)	II	MWF	Ar	Mr. Klug
121w-122s	Crystal Chemistry (3 cred. per qtr.; jr., sr., grad.; prereq. Phys. Chem. 103)	II	MWF	Ar	Mr. Klug
123w†	Crystal Analysis Laboratory (3 cred.; jr., sr., grad.; prereq. Inorganic Chemistry 120)	Ar	Ar	Ar	Mr. Klug

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

ANALYTICAL CHEMISTRY

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

† 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.

‡ Course 2s may precede 1w, if desired.

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	Mr. Sandell
104f†	Microchemistry (3 cred.; jr., sr., grad.; prereq. Anal. Chem. 1-2)	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	Mr. Geiger
131f†	Application of Indicators (3 cred.; jr., sr., grad.; prereq. Anal. Chem. 1-2 and Phys. Chem. 103)	VI	MW	315C	Mr. Kolthoff
	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)	VI	MW	315C	Mr. Kolthoff
	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	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†-2s††	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	
54f-55w†-156s*	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 156 is prerequisite to all other advanced courses in organic chemistry)				
	Lect.	III	MWF	111C	Mr. Lauer(w,s) Mr. Smith(f)
	Quiz	III	Th	410C	
57f†-58w††-159s†*	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 159 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†-98s†	Senior Thesis—This course may be taken with any member of the Organic Chemistry Division staff (5 cred. per qtr.; sr.)				
		Ar	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	
130s†	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,s†	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	Ar	Mr. Arnold
140f	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)				
		IV	MWF	315C	Mr. Arnold

* 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
141	<i>Reagents in Organic Chemistry</i> —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) (<i>Not offered—offered in alternate years</i>)				
142w-143s	The Chemistry of Natural Products—Discussion of the organic chemistry of important classes of natural products (3 cred. per qtr.; prereq. 156 and 159)	I	MWF	Ar	Mr. Lauer
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. Lauer, Mr. Koelsch, 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>)				
212	<i>Physico-Organic Chemistry</i> —Contributions made to organic chemistry by kinetic and equilibrium studies of organic reactions, including mechanisms of catalytic and ionic 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) (<i>Not offered—offered in alternate years</i>)				
301f-302w-303s	Research in Organic Chemistry (Cred. ar.; prereq. 110)	Ar	Ar	Ar	Mr. Smith, Mr. Lauer, Mr. Koelsch, Mr. Arnold

PHYSICAL CHEMISTRY

101f-102w-103s	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.	IV	MWF	325C	Mr. MacDougall
	Rec.	IV	S	325C	
104f†-105w†-106s†	Physical Chemistry Laboratory (To accompany or follow Course 101-102-103) (1 or 2 cred. per qtr.)				
		VI, VII, VIII	MW	190C	
107w†	Elementary Physical Chemistry (6 cred.; for premedical students only; prereq. two years college chemistry, one year college physics)				
	Lect.	II	MWFS	Ar	Mr. Crawford
	Rec.	VIII	T	ArC	
	Lab.	Ar	Ar	190C	
113f	Fundamentals of Reaction Kinetics (3 cred.; jr., sr., grad.; prereq. 103)				
		Ar	Ar	Ar	Mr. Livingston
114w	Kinetics of Reactions in Liquid Solutions in Heterogeneous Systems (3 cred.; jr., sr., grad.; prereq. 103 and calculus)				
		Ar	Ar	Ar	Mr. Livingston
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†-133s†	Colloid Chemistry Laboratory (Cred. ar.; sr., grad.; prereq. 129 or 130)				
		Ar	Ar	Ar	Mr. Reyerson
175s	Photochemistry (3 cred.; jr., sr., grad.; prereq. 103 and Physics 9)				
		Ar	Ar	Ar	Mr. Livingston

† 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.

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.)	V	TTh	100Pt	Mrs. Cummings
40f*	Child Training (3 cred.; soph., jr., sr.; prereq. Psy. 1-2)	V	MWF	202Pt	Miss Peterson
40w*	Child Training (See 40f)				
	Sec. 1	IV	MWF	100Pt	Mrs. Fuller
	2	V	MWF	202Pt	Miss Peterson
40s*	Child Training (See 40f)				
		V	MWF	202Pt	Miss Peterson

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 17.

80f	Child Psychology (3 cred.; jr., sr.; prereq. Psy. 1-2)	III	MWF	202Pt	Miss Kuenne
80w	Child Psychology (See 80f)	III	MWF	202Pt	Miss Kuenne
80s	Child Psychology (See 80f)	III	MWF	202Pt	Miss Kuenne
90f	Home, School, and Family Relations (2 cred.; jr., sr.; prereq. 80)	III	TTh	202Pt	Mrs. Cummings
130f	Motor, Linguistic, and Intellectual Development of the Child (3 cred.; sr., grad.; prereq. 12 cred. in psy. or equiv.)	I	MWF	202Pt	Mr. Anderson
131w	Personality, Emotional, and Social Development of the Child (3 cred.; sr., grad.; prereq. 12 cred. in psy. or equiv.)	I	MWF	202Pt	Mr. Anderson
132s	Later Childhood and Adolescence (3 cred.; sr., grad.; prereq. 80 or equiv.)	I	MWF	202Pt	Miss Templin
133f-134w-135s	Research Methods (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	Miss Kuenne
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
142s	Psychology of Atypical Children (3 cred.; sr., grad.; prereq. 12 cred. in psy.)	II	MWF	202Pt	Miss Goodenough
150f-151w-152s	Childhood Education (2, 4 or-6 cred.; sr., grad.; prereq. 12 cred. in psy. or equiv.)	VIII	TTh	202Pt	Mrs. Fuller
160s	Physical Growth and Development (3 cred.; sr., grad.; prereq. 12 cred. in psy. or equiv.)	IV	MWF	204EPt	Dr. Booth
170f,w	Parent Education (3 cred.; sr., grad.; prereq. 15 cred. in child welfare or home econ. or educ. or psy. or soc. or public health)	V	MWF	202Pt	Ar
185f	Children in the War and Postwar Period (3 cred.; sr., grad.; prereq. 12 cred. in psy., educ., or soc.)	IV	MWF	202Pt	Miss Templin
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
226w	Seminar on Maturity and Senescence	Ar	Ar	204EPt	Miss Templin
230f-231w-232s	Seminar in Recent Literature	IX	M	202Pt	Miss Goodenough
270f-271w-272s	Readings and Research in Child Development	Ar	Ar	101Pt	Mr. Anderson and others
274w-275s	Technique and Field Work in Parent Education	Ar	Ar	204EPt	Ar
290w-291s	Mental Examination of Preschool Children	Ar	Ar	205Pt	Miss Kuenne

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 17. Students who continue Greek in the Senior College will enroll in Greek 171, 172, 173, "Independent Reading Courses." The subject matter of these courses will be varied to meet the needs of the individual student.

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
121-122-123†	<i>Advanced Composition</i> (9 cred.; jr., sr., grad.; prereq. 24 cred. in Greek) (<i>Not offered</i>)				
171f,*172w,* 173s*	<i>Independent Reading Courses</i> (3 cred. per qtr.; 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 credit.) (<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>)				

Courses for Which No Knowledge of Greek Is Required
(See page 36)

LATIN

Junior College Courses

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

* Since the authors to be read vary from term to term and from year to year, this course may be repeated for credit.

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

No.	Title	Hour	Day	Bldg.	Instructor
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 17.

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
121f	Advanced Vergil (3 cred.; jr., sr., grad.; prereq.*)	II	MWF	109F	
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)	III	MWF	110F	Mr. Ogle
142w	Tacitus (3 cred.; jr., sr., grad.; prereq.*)	II	MWF	109F	Mr. Ogle
151	<i>Advanced Cicero</i> (3 cred.; jr., sr., grad.; prereq.*) (<i>Not offered</i>)				
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	<i>Graduate Seminar: Cicero</i> (9 cred.) (<i>Not offered</i>)				
211-212-213	<i>Graduate Seminar: The Latin Epic</i> (9 cred.) (<i>Not offered</i>)				
221f-222w-223s	Graduate Seminar: Lyric Poetry (9 cred.)	VIII, IX	Th	108F	Mr. Ogle
231-232-233	<i>Graduate Seminar: Latin Historiography</i> (9 cred.) (<i>Not offered</i>)				
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	MW	109F	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.

¶ Students may enter either quarter.

No.	Title	Hour	Day	Bldg.	Instructor
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
106f-107w	Introduction to the Study of Language (3 cred. per quarter; jr., sr., grad.; prereq. any two courses numbered above 50 in a foreign language)	VII	MWF	108F	Mr. Ogle
108s	Cultural Aspects of Language (3 cred.; jr., sr., grad.; prereq. any two courses numbered above 50 in a foreign language)	VII	MWF	108F	Mr. Ogle
192w, 193s	Classical Literary Tradition (2 cred. per quarter; jr., sr., grad.; prereq. 9 credits in English or a foreign language)	Ar	Ar	Ar	Mr. Ogle

COMMUNICATION

See General Studies, page 48.

COMPARATIVE PHILOLOGY AND LINGUISTICS

See Linguistics and Comparative Philology, page 68.

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, convention, 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	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	

Senior College Courses

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
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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 194s, "Advanced Advertising Procedure."

No.	Title	Hour	Day	Bldg.	Instructor
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	Basic Drawing
ArtEd.24-26-28	Specialized Drawing and Painting (Continuation of 4-6-8)
ArtEd.61,62,63	Advanced General Drawing and Painting
ArtEd.66,67,68	Specialized Drawing and Painting (Continuation of 61,62,63)
ArtEd.124-125-126	Specialized Drawing and Painting, continued

Art Education (Courses in Handcrafts)

ArtEd.31,32	Orientation in Handcraft Processes
ArtEd.70,71,72	Wood Sculpture
ArtEd.74,75	Ceramic Processes
ArtEd.76,77,78	Textile Processes

Music Education

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.120	Basic Principles of Measurement
Ed.Psy.140	Instruments and Techniques of Measurement
Ed.Psy.141	Group Aptitude Testing
Ed.Psy.142	Individual Aptitude Testing

Physical Education

See pages 11 and 12, 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 Cooper in 106 Folwell Hall and by Senior College students to Assistant Dean Buchta in 146 Physics.

ENGLISH

Major advisers in the College of Science, Literature, and the Arts—Professor McDowell; Associate Professor Jackson; Assistant Professor 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—Professor Dora Smith and Assistant Professor Allen.

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
English 165, Historical Study of Modern English	3
Composition 27-28. Advanced Writing	6
Speech	6
Additional credits, all of which must be secured in courses numbered 100 or above	3

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

Total credits

28

Education students who major in English are required to take Ed.C.I. 122, Literature for Adolescents.

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 page 43. 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, Browning, and Arnold (15 cred.; prereq.*) Sec. 1 2	III VI	MTWThF MTWThF	301F 301F	Mr. R. E. Moore 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	MW	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	Mr. Warren(f,w) Mr. Hill- house(s)
40w-41s†	The Bible as Literature (6 cred.; prereq.*)	IV	MWF	113F	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
45	<i>American Life in American Literature</i> —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.*) (Not offered)				

Attention of students is called to Humanities 1-2-3, 5-6-7, and 10-11-12 (page 49).

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 17.

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
54s	English Prose from Morris to Shaw (3 cred.; jr., sr.; prereq.§)	IV	MWF	304F	Mrs. Phelan

* 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
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	Mr. Flanagan
	3	VI	MWF	104F	Mr. Dunn
	4	VII	MWF	209F	Miss Jackson
55w-56s	Shakespeare—(see 55f-56w)				
	Sec. 1	III	TThS	114F	Miss Atkins
	2	VI	MWF	209F	Ar
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	113F	Mr. Dunn
62s	Milton (See 62f)	VI	MWF	113F	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	113F	Mr. Dunn
75s	Chaucer (See 75f)	III	MTWF	115F	Mr. Dunn
97f-98w-99s	Independent Reading Course (9 cred.; jr., sr.; prereq. permission of department)	Ar	Ar	111F	Mr. Hessler
100f	Old English (4 cred.; jr., sr., grad.; prereq. 6 cred. above 50)	II	TWThF	205F	Mr. Allen
102w	Old English Poetry (3 cred.; jr., sr., grad.; prereq. 100)	II	MWF	204F	Mr. Allen
103s	Beowulf (3 cred.; jr., sr., grad.; prereq. 100)	II	MWF	204F	Mr. Allen
105w-106s	Eighteenth-Century Poetry (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50)	VII	MWF	204F	Mr. C. A. Moore
107-108	<i>Eighteenth-Century Prose</i> (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50) (<i>Not offered</i>)				
109f-110w	Romantic Poets—109f: Wordsworth, Coleridge, Scott; 110w: Byron, Shelley (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50)	IV	MWF	115F	Miss Atkins
111f-112w	Seventeenth-Century Prose (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50)	IV	MWF	204F	Mr. C. A. Moore
113s	American Short Story (3 cred.; jr., sr., grad.; prereq. 73-74)	II	MWF	305F	Mr. McDowell
114	<i>The Literature of the Middle West</i> (3 cred.; jr., sr., grad.; prereq. 73-74 or History 20-21-22) (<i>Not offered</i>)				
115-116	<i>The Development of English Prose Style</i> (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50) (<i>Not offered</i>)				
117f	American Essay (3 cred.; jr., sr., grad.; prereq. 73-74)	IV	MWF	114F	Mr. Flanagan
118f-119w	Nineteenth-Century Prose—118f: The literature of social criticism: Carlyle, Ruskin, Arnold, Morris, Shaw; 119w: Literature concerned largely with science and religion: Newman, Huxley, Spencer, Butler, Wells, Chesterton, and others (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50 or consent of instructor)	III	TThS	205F	Mr. Bentley
120f-121w	The Interpretation of Poetry (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50)	VI	MWF	306F	Mr. Warren

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

¶ Students may enter either quarter.

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No.	Title	Hour	Day	Bldg.	Instructor
123f-124w-125s	Technique of the Novel (9 cred.; sr., grad.; prereq. 6 cred. above 50 and permission of instructor)	4:00-6:00	T	204F	Mr. Beach
126f-127w	Drama, 1660-1900 (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50)	VII	MWF	306F	Mr. Hillhouse
129s	Modern Drama (3 cred.; jr., sr., grad.; prereq. 55-56 or 126-127)	II	MWF	206F	Mr. Hillhouse
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</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. C. A. 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)	VI	MWF	302F	Mr. Allen
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>)				
150	<i>Victorian Poetry</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. above 50) (<i>Not offered—offered in 1946-47</i>)				
151s	Recent Poetry (4 cred.; jr., sr., grad.; prereq. 6 cred. above 50)	III	TWThF	305F	Miss Jackson
152f	Medieval and Early Elizabethan Drama (3 cred.; jr., sr., grad.; prereq. 55-56)	I	MWF	205F	Mr. Brown
153	<i>Seventeenth-Century Lyrists</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. above 50) (<i>Not offered</i>)				
154-155¶	<i>American Novel</i> (6 cred.; jr., sr., grad.; prereq. 73-74 or 52-53) (<i>Not offered</i>)				
156s	American Drama (3 cred.; jr., sr., grad.; prereq. 73-74 or 126-127)	VI	MWF	311F	Mr. Flanagan
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>)				
162s	Restoration Non-Dramatic Literature (3 cred.; jr., sr., grad.; prereq. 6 cred. above 50)	IV	MWF	204F	Mr. C. A. Moore
163-164	<i>Restoration Drama</i> (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50) (<i>Not offered—offered in 1946-47</i>)				
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	Mr. Allen
167-168	<i>English Literary Criticism</i> (6 cred.; jr., sr., grad.; prereq. 6 cred. above 50) (<i>Not offered</i>)				
169	<i>Browning and Tennyson</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. above 50) (<i>Not offered</i>)				
170w	Elizabethan Drama—Shakespeare's later contemporaries (3 cred.; jr., sr., grad.; prereq. 55-56)	I	MWF	205F	Mr. Brown
174w	American English (3 cred.; jr., sr., grad.; prereq. 6 cred. above 50)	VI	MWF	205F	Mr. Allen
175	<i>The History of English Verse</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. above 50) (<i>Not offered—offered in 1946-47</i>)				
179-180	<i>Social and Intellectual Backgrounds of American Literature</i> (6 cred.; jr., sr., grad.; prereq. 6 cred. of American history, philosophy, political science, or literature) (<i>Not offered</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, 108; Scandinavian 161, 171; German 73-74-75, 183, 195.

¶ Students may enter either quarter.

For Graduate Students Only

No.	Title	Hour	Day	Bldg.	Instructor
228f-229w-230s	Eighteenth-Century Novel	4:00-6:00	Th	312Lib	Mr. C. A. Moore
256f-257w-258s	Spenser and Milton	4:00-6:00	M	312Lib	Mr. Brown
265f-266w-267s	American Romanticism II: Poe, Melville, Whitman	4:00-6:00	F	312Lib	Mr. McDowell

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

COMPOSITION

Major advisers in the College of Science, Literature, and the Arts—Assistant Professors Atkins and 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 and Communication 4-5-6 are 9-credit courses in composition. Any of these courses 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 in Composition 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

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	MTWThF	Ar	Ar
		II	MTWThF		
		III	MTWThF		
		IV	MTWFS		
		V	MTWThF		
Aw-Bs	Freshman English (2 qtrs. of A-B-C. See Af-Bw-Cs)	I	MTWThF	Ar	Ar
		VI	MTWThF	Ar	Ar
Cf	Freshman English (3rd qtr. of A-B-C. See Af-Bw-Cs)				

No.	Title	Hour	Day	Bldg.	Instructor
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

Attention is called to Communication 4-5-6 (page 48).

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	Ar
	3	III	MWF	Ar	Mr. Flanagan
	4	IV	MWF	Ar	Miss Scallon
	5	IV	MWF	Ar	Mrs. del Plaine
	6	VII	MWF	Ar	Mr. Cronin
27w-28s*	Advanced Writing (See 27f-28w)				
	Sec. 1	I	MWF	Ar	Mr. Briggs
	2	IV	MWF	Ar	Miss Christie
	3	VI	MWF	Ar	Ar
	3a (winter only)	VI	MWF	Ar	Ar
27s*	Advanced Writing (1st qtr. of 27-28. See 27f-28w)				
	Sec. 1	I	MWF	Ar	Ar
	2	II	MWF	Ar	Mr. Flanagan
28f*	Advanced Writing (2nd qtr. of 27-28. See 27f-28w)				
	Sec. 1	III	MWF	Ar	Mrs. Phelan
	2	VI	MWF	Ar	Ar
28s*	Advanced Writing (See 28f)				
		II	MWF	Ar	Mrs. Phelan
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.				

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 17.

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) (Not offered)				
67f-68w	Problems of Style (6 cred.; jr., sr.; prereq. average of B in two qtrs. of 27-28, 29, 65)	IV	MWF	304F	Mrs. Phelan

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

No.	Title	Hour	Day	Bldg.	Instructor
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
81f-82w-83s	Essays; Articles; Term Papers or Theses (6 cred.; jr., sr.; prereq. average of B in two qtrs. of 27-28, 29, 65)	II	TTh	108F	Miss Atkins
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	Mr. Warren

For Graduate Students Only

200-201-202	Graduate Seminar in Writing (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) (Not offered)				
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FINE ARTS

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

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 it 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 20, 38, and 37 of this bulletin.

Modification 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
10f,w‡	Photography—Fundamental principles of photography: the use of cameras, developing, printing and other elementary techniques (The same as Journalism 10) (3 cred.; soph., jr., sr.; no prereq.)	V VII, VIII	T	311MurH 20MurH	Mr. Hill Mr. Hill

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 17.

51f-52w-53s	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
57f-58w-59s	Art in the Americas—A comprehensive study of painting, sculpture, and architecture in North and South America, treating the important pre-Columbian traditions, the development of the various colonial styles, and the significant national schools of the nineteenth century. In the spring quarter the important schools of modern architecture and painting will be covered, 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)	VI	MWF	2J	Miss Vincent

‡ A fee of \$5 is charged for this course.

No.	Title	Hour	Day	Bldg.	Instructor
61f-62w-63s	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		Mr. Schmeckebeier
71	<i>Modern Art: Classicism and Romanticism</i> —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) (<i>Not offered</i>)				
72	<i>Modern Art: Realism and Impressionism</i> —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) (<i>Not offered</i>)				
73	<i>Modern Art: Contemporary Art in Europe and America</i> —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) (<i>Not offered</i>)				
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>)				
151f	<i>Foundations of Christian Art</i> —The study of architecture, sculpture, mosaics, manuscript illumination, and mural painting from the early Christian period through the age of Charlemagne (3 cred.; jr., sr., grad.; prereq. 9 cred. in fine arts or 9 cred. in history or literature with consent of instructor)				
		IV	MWF	2J	Mr. Schmeckebeier
152w	<i>Monastic Art of the Middle Ages</i> —The study of architecture, sculpture, and related religious arts as developed in the great monastic centers of Europe, particularly in the eleventh and twelfth centuries (3 cred.; jr., sr., grad.; prereq. same as for 151)				
		IV	MWF	2J	Mr. Schmeckebeier
153s	<i>The Art of the Great Cathedrals</i> —A study of the important cathedrals of Europe both from the standpoint of the development of the Gothic style in architecture, sculpture, and stained glass, and as expressions of medieval culture (3 cred.; jr., sr., grad.; prereq. same as for 151)				
		IV	MWF	2J	Mr. Schmeckebeier
154	<i>Italian Painting and Sculpture of the Early Renaissance</i> —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) (<i>Not offered</i>)				
155	<i>Great Masters of the High Renaissance</i> —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) (<i>Not offered</i>)				
156	<i>Renaissance Art in Northern Europe</i> —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) (<i>Not offered</i>)				
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>)				

No.	Title	Hour	Day	Bldg.	Instructor
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
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FRENCH

See Romance Languages, page 98.

GENERAL STUDIES

The Department of General Studies includes inter-departmental or divisional courses devised especially for the purposes of general education. They are designed to supplement the courses of other departments in helping the student to achieve a well-rounded education, and they are adapted to the needs of the students expecting to specialize elsewhere as well as to those in Science, Literature, and Arts.

Most of the courses listed below have been offered for several years and are now brought together in this department. The courses in Communication, General Biology, and the Physical World are new this year.

COMMUNICATION

4f-5w-6s	Communication—Experience in the arts of effective speaking and writing as well as discriminating reading and listening; and a study of agencies and methods for communicating ideas. This course is regarded as an equivalent of Composition 4-5-6 in satisfying any requirements of the University (9 cred.; prereq. placement test, see page 43.)				
	Sec. 1	I	MWF	Ar	Ar
	2	II	MWF		
	3	III	MWF		
	4	IV	MWF		
	5	VI	MWF		
	6	II	TThS		
	7	III	TThS		

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.

HUMANITIES

Junior College Courses

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	I	MTWThF	9F	Mr. Bentley
	2	II	MTWThF	105MurH	Mr. McClosky
	3	VI	MTWThF	221Bu	Mr. Wolf
	4	VII	MTWThF	105MurH	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	I	MTWThF	9F	Mr. Bentley
	2	II	MTWThF	105MurH	Mr. McClosky
	3	VI	MTWThF	221Bu	Mr. Wolf
	4	VII	MTWThF	105MurH	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; Dostoevsky, Zola, Butler, Tolstoy; Anatole France, Ibsen, Shaw, O'Neill; Kipling, Sandburg, T. S. Eliot (5 cred.; no prereq.)				
	Sec. 1	I	MTWThF	9F	Mr. Bentley
	2	II	MTWThF	105MurH	Mr. McClosky
	3	VI	MTWThF	221Bu	Mr. Wolf
	4	VII	MTWThF	105MurH	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	204F	Mr. Beach
6w	The Roman and the Medieval Heritage—Roman jurisprudence and organization; epicureanism and stoicism. Selections from Lucretius, Epictetus, 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	204F	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	204F	Mr. Beach
10f	Humanities in the United States I—The growth and the interrelation of nationalism, regionalism, and internationalism in American social thought, literature, and the fine arts, against a background of history (3 cred.; no prereq.)				
		III	MWF	311F	Mr. McDowell
11w	Humanities in the United States II—The growth and interrelation of individualism and democracy, with particular attention to the status of minorities (3 cred.; no prereq.)				
		III	MWF	311F	Mr. McDowell
12s	Humanities in the United States III—The conquest of nature, the pursuit of happiness, the good life: their implications and interrelations (3 cred.; no prereq.)				
		III	MWF	311F	Mr. McDowell

For *Senior College Courses* in Humanities, and for a major in the Humanities, see page 63.

MARRIAGE

No.	Title	Hour	Day	Bldg.	Instructor
Aw	Preparation for Marriage and Family Living (3 cred.; no prereq.) (Written permission must be obtained from the Junior College office, 106 Folwell Hall)	II	MWF	211Z	Ar

NATURAL SCIENCE

Three general education courses in natural science are listed below, each serving a distinctive purpose. Natural Science 1-2-3 is intended for students desiring an introduction to the total field of science, 4-5-6 is for those desiring an acquaintance with the physical universe, while 7-8 is for those wishing to explore the world of life.

Any of the three courses when taken in its entirety will fulfill the group "D" requirement in the natural sciences for admission to the Senior College of Science, Literature, and the Arts and the College of Education. Students taking 1-2-3 may not receive credit for 4-5-6 or 7-8, but they may take both 4-5-6 and 7-8 for credit.

1-2-3*	<i>Orientation in the Natural Sciences</i> —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 infections and communicable diseases, and public health; readings in anthropology and psychology (15 cred.; fr., soph., no prereq.) (<i>Not offered</i>)				
4f-5w-6s†	The Physical World—Essential elements of astronomy, physics, chemistry and geology, selected to illustrate the methods of science and to acquaint the student with the universe around him (10 cred.; fr., soph.; no prereq.)				
	Lect.	IV	MWF	166Ph	Ar
	Lab.	Ar		Ar	Ar
7w-8s†	General Biology—The main principles of plant and animal life with particular reference to man and his place in the biological world (10 cred.; fr., soph., no prereq.)				
	Lect.	II	MWF	BoAud	
	Lab.	I-II		TThS	Ar

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.)				
	Sec. 1	II	MTWF	110P	Mr. Monachesi
	2	VI	MTWF	4VH	Mr. Lindblom

VOCATIONAL ORIENTATION

1w,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

* Students may enter any quarter.

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

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, 103, 104, 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, 103, 104, 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, 103, 104, 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
11s*	Human Geography (See 11f)				
	Sec. 1	II	MTWThF	103Bu	Mr. Davis
	2	III	MTWThF	103Bu	Mr. Brown
35f,w	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	W	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 17.

53s	Historical Geography of North America (3 cred.; jr., sr.; prereq. 11, or 15 cred. in history)				
		IV	MWF	103Bu	Mr. Brown

* Registration is limited. Written permission from the Junior College Office, 106 Folwell Hall, is necessary for admission.

‡ 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.

No.	Title	Hour	Day	Bldg.	Instructor
71f	Geography of North America (3 cred.; jr., sr.; prereq. 11)	VII	MWF	103Bu	Mr. Dicken
101s	Geography of Europe (3 cred.; jr., sr., grad.; prereq. 8 cred. or permission of instructor)	VII	MWF	103Bu	Mr. Dicken
102w	Trade Routes and Trade Centers (3 cred.; jr., sr., grad.; prereq. 41)	VII	MWF	103Bu	Mr. Dicken
103w	Geography of Africa (3 cred.; jr., sr., grad.; prereq. 8 cred. or permission of instructor)	IV	MWF	103Bu	Mr. Brown
104w	Geography of Australasia (2 cred.; jr., sr., grad.; prereq. 8 cred. or permission of instructor)	I	TTh	103Bu	Mr. Davis
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>)				
120s	Geography of Asia (3 cred.; jr., sr., grad.; prereq. 10 cred. or permission of instructor)	I	MWF	103Bu	Mr. Davis
133	<i>Climatology</i> (3 cred.; jr., sr., grad.; prereq. 10 cred. incl. 11) (<i>Not offered</i>)				

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
253s	Seminar	Ar	Ar	Ar	Mr. Davis and staff
301f,w,s	Research Problems	Ar	Ar	Ar	Mr. Davis, Mr. Brown, Mr. Dicken

GEOLOGY AND MINERALOGY

Major adviser in the College of Science, Literature, and the Arts—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, 110, 111, 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.

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

Major adviser in the College of Education—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	22P	Ar
1w-2s*	General Geology (Dynamic and Historical) (See 1f-2w)	III	MWF	110P	Ar
Aw†-Bs‡§	General Geology Laboratory (Dynamic and Historical) (See Af-Bw)	VI, VII	WF	22P	Ar
1s	General Geology (Dynamic) (1st qtr. of 1-2. See 1f-2w)	III	TThS	210P	Mr. Thiel
As†§	General Geology Laboratory (Dynamic) (1st qtr. of A-B. See Af-Bw)	III, IV	WF	22P	Ar
8f	Introductory Geology—A short introductory course. 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)	III	MTWThF	210P	Mr. Thiel
8s	Introductory Geology (See 8f)	II	MTWThF	210P	Mr. Thiel
23f†-24w*†	Elements of Mineralogy (8 cred.; soph., jr., sr.; prereq. a course in chemistry)	I	TThS	110P	Mr. Gruner
	Schedule for 23f Lect.	VIII	Th	110P	
	Rec.	III, IV	TS	100P	
	Lab. Sec. A	VI, VII	TTh	100P	
	B	I	TThS	110P	Mr. Gruner
	Schedule for 24w Lect.	VIII	M	110P	
	Rec.	III, IV	TS	100P	
	Lab. Sec. A	VI, VII	MW	100P	
	B				

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 17.

* 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.

|| 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.

No.	Title	Hour	Day	Bldg.	Instructor
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	
91f-92w-93s	Index Fossils of North America (9 cred.; jr., sr.; prereq. 2 or 51)				
	Lect.	VIII	Th	210P	Ar
	Lab.	VI, VII	TTh	105P	
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.	VII	MWF	210P	Mr. Thiel
	Schedule for 102w Lect.	VI	M	208P	Mr. Thiel
	Lab.	VII, VIII	MW	208P	
103w-104s	Micropaleontology (6 cred.; jr., sr., grad.; prereq. 51 or 91)		Ar	Ar	Ar
105s	Rock Study (2 cred.; jr., sr., grad.; prereq. 24)				
	Lect.	I	TS	210P	Mr. Grout
	Lab.	I, II	Th	200P	
106f	Petrography (2 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
107f-108w-109s	Paleontologic Practice (9 cred.; jr., sr., grad.; prereq. 91-92-93)		Ar	Ar	Ar
110f	Principles of Economic Geology (3 cred.; jr., sr., grad.; prereq. 24)		I	TThS 210P	Mr. Schwartz
111w	Ore Deposits—Metallic and Non-metallic (3 cred.; sr., grad.; prereq. 2 and 105)		I	TThS 210P	Mr. Schwartz
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>)				
118f	Principles of Geomorphology (3 cred.; jr., sr., grad.; prereq. 2)		Ar	Ar	Ar
119w	Geomorphology of the United States (3 cred.; jr., sr., grad.; prereq. 2)		Ar	Ar	Ar
120s	Glacial Geology ((3 cred.; jr., sr., grad.; prereq. 2)		Ar	Ar	Ar
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 218P	Mr. Schwartz
131w-132s	Advanced Petrology (8 cred.; jr., sr., grad.; prereq. 106)				
	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)				
	Lect.	II	F	200P	Mr. Grout
	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

No.	Title	Hour	Day	Bldg.	Instructor
150*	Field Geology (Black Hills)—June 15 to July 15, approximately (Jr., sr., grad.; prereq. 125)				
		Ar	Ar	Ar	Mr. Schwartz
151f-152w-153s	Advanced General Geology (9 cred., jr., sr., grad.; prereq. 2)	Ar	Ar	Ar	Ar
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

Refresher Courses for War Veterans

The following courses have been designed to fit the needs of students who entered military service before their major work was completed, and for those who took an accelerated program adopted as a war emergency measure. Some students were allowed to receive degrees without certain courses which are essential for competent professional work. These courses will aid in reorienting the student in the field of his major interest. No more than three of the following courses may be taken for credit by any one student. Students should consult the major adviser before registering.

113	Theory of Ore Deposits (3 cred.; sr., grad.; prereq. 112)				Mr. Schwartz
117	Paleontologic Problems (3 cred.; sr., grad.; prereq. 109)				Ar
122	Problems in Sedimentation (3 cred.; sr., grad.; prereq. 102)				Mr. Thiel
123	Advanced Mineralogy (3 cred.; jr., sr., grad.; prereq. 24)				Mr. Gruner
126	Advanced Structural Geology (3 cred.; sr., grad.; prereq. 125)				Mr. Grout, Mr. Schwartz
142	Petrographic Problems (3 cred.; sr., grad.; prereq. 131)				Mr. Grout

GEOPHYSICS

See Physics, page 82.

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.

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

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	207F	Ar
		VI	MTWThF	209½F	Ar
1af*	Beginning A—Conversational section (5 cred.; no prereq.) Demonstration Plus Laboratory Drill	III	MTWThF	209F	Ar
		IV	MTWF	Ar	Ar
		and V	Th		
		VI	MTWThF	207F	Ar
		VII	MTWThF	Ar	Ar
1w	Beginning A (See 1f)	II	MTWThF	209F	Ar
1s	Beginning A (See 1f)	II	MTWThF	125F	Ar
2f	Beginning B (5 cred.; prereq. 1 or one year of high school German)	III	MTWThF	212F	Ar
2w	Beginning B (See 2f)	I	MTWThF	212F	Ar
		II	MTWThF	213F	Ar
		III	MTWThF	207F	Ar
		VI	MTWThF	209½F	Ar
2aw*	Beginning B—Conversational section (5 cred.; prereq. 1af) Demonstration Plus Laboratory Drill	III	MTWThF	209F	Ar
		IV	MTWF	Ar	Ar
		and V	Th		
		VI	MTWThF	207F	Ar
		VII	MTWThF	Ar	Ar
2s	Beginning B (See 2f)	II	MTWThF	209F	Ar
3f§	Beginning C (5 cred.; prereq. 2 or two years of high school German) (Premed. students only)§	I	MTWThF	209½F	Ar
		VII	MTWThF	207F	Ar
		II	MTWThF	209½F	Ar
3w	Beginning C (See 3f)	III	MTWThF	212F	Ar
3s	Beginning C (See 3f)	I	MTWThF	212F	Ar
		II	MTWThF	213F	Ar
		III	MTWThF	207F	Ar
		VI	MTWThF	209½F	Ar

* The conversational method will be used in these sections; substantially less home study will be required than in the standard sections.

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

No.	Title	Hour	Day	Bldg.	Instructor
3as*	Beginning C—Conversational section (5 cred.; prereq. 2a)				
	Demonstration	III	MTWThF	209F	Ar
	Plus Laboratory Drill	IV	MTWF	Ar	Ar
		and V	Th		
	Demonstration	VI	MTWThF	207F	Ar
	Plus Laboratory Drill	VII	MTWThF	Ar	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
24f-25w-26s	Chemical German (9 cred.; chemists, miners; no prereq.)				
		IV	MWF	209½F	Ar
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

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 17.

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	108F	Mr. Holske
56f-57w	Essay Writing (6 cred.; jr., sr.; prereq. 52)				
		III	TThS	302F	Mr. Pfeiffer
58s	German Pronunciation (2 cred.; jr., sr.; prereq. 4)				
		III	TTh	302F	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	The Modern Short Story (3 cred.; prereq. 4 or four years of high school German)				
		III	MWF	205F	Mr. Holske
60s	The Modern Short Story (See 60w)				
		IV	MWF	213F	Mr. Holske
61s	Lyrics and Ballads (3 cred.; jr., sr.; prereq. 3 cred. above 59)				
		III	TThS	205F	Mr. Holske
62	Nineteenth-Century Prose (3 cred.; jr., sr.; prereq. 3 cred. above 59) (Not offered)				
63f	Classical Drama (3 cred.; jr., sr.; prereq. 60 or 4 with a grade of B)				
		IV	MWF	207F	Mr. Burkhard
64w	Nineteenth-Century Drama (3 cred.; jr., sr.; prereq. 3 cred. above 59)				
		IV	MWF	207F	Mr. Burkhard
65s	Modern Drama (3 cred.; jr., sr.; prereq. 3 cred. above 59)				
		IV	MWF	207F	Mr. Burkhard
68w	Introductory Survey of German Literature (3 cred.; jr., sr.; prereq. 6 cred. above 59)				
		III	MWF	209½F	Mr. Burkhard

* The conversational method will be used in these sections; substantially less home study will be required than in the standard sections.

58 COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS

No.	Title	Hour	Day	Bldg.	Instructor
70	<i>Early German Literature</i> (3 cred.; jr., sr.; prereq. 3 cred. above 59) (<i>Not offered</i>)				
73f-74w-75s§	German Classics in English Translation (6 cred.; sr., grad.; no prereq.)	VII	MW	212F	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. Burkhard
80	<i>History of the German Language</i> (3 cred.; jr., sr.; prereq. 6 cred. above 60) (<i>Not offered</i>)				
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	

For a complete list of graduate offerings see "The Graduate School Announcement."

Courses numbered 100 to 199 are open to seniors upon recommendation of advisers.

COURSES IN GERMAN LITERATURE

100f-101w-102s†	History of German Literature (9 cred.; sr., grad.; prereq. 68 and 9 cred. above 59)	II	TThS	304F	Mr. Reichardt, Mr. Holske, Mr. Pfeiffer
103f-104w-105s†	Bibliography and Methods (3 cred.; grad.) (To be taken concurrently with Course 100-101-102. Required of all candidates for advanced degrees)	Ar	Ar	Ar	Mr. Reichardt, Mr. Holske, Mr. Pfeiffer
130-131-132	<i>The Age of Luther</i> (9 cred.; sr., grad.; prereq. 101 or equivalent and 11 cred. above 59) (<i>Not offered</i>)				
150-151-152	<i>Studies in German Literature of the Nineteenth Century: Die Novelle</i> (9 cred.; sr., grad.; prereq. 102 or equivalent and 11 cred. above 59) (<i>Not offered</i>)				
153-154-155	<i>The Modern Drama</i> —From Hauptmann to the present (9 cred.; sr., grad.; prereq. 102 or equivalent and 11 cred. above 59) (<i>Not offered</i>)				
160f-161w-162s	Lyric Poetry (9 cred.; sr., grad.; prereq. 100-101-102 or equivalent and 11 cred. above 59)	Ar	Ar	Ar	Mr. Meessen
163f-164w-165s	The Nineteenth Century Novel (9 cred.; sr., grad.; prereq. 102 or equivalent and 11 cred. above 59)	VIII, IX, X	'F	328Lib	Mr. Pfeiffer

COURSES IN LINGUISTICS AND PHILOLOGY

110f-111w-112s†	Middle High German—Linguistic introduction and readings in Middle High German literature (9 cred.; sr., grad.; prereq. 68 and 11 cred. above 59)	Ar	Ar	Ar	Mr. Reichardt
113-114-115	<i>Gothic and Old High German</i> (The same as Scandinavian 113-114-115) (9 cred.; sr. with completed major sequence, grad.; prereq. 68 and 11 cred. above 59) (<i>Not offered</i>)				
	113 <i>Gothic</i> —Introduction to Germanic linguistics (4 cred.)				
	114 <i>Gothic Texts</i> (2 cred.)				
	115 <i>Old High German</i> (3 cred.)				
125	<i>History of the German Language</i> (3 cred.; sr., grad.; prereq. 68 and 11 cred. above 59) (<i>Not offered</i>)				
126	<i>Historical German Grammar</i> (3 cred.; sr., grad.; prereq. 110-111-112 or 113-114-115) (<i>Not offered</i>)				
183	<i>Germanic Heroic Poetry</i> (The same as Scandinavian 183) (3 cred.; sr., grad.; prereq. 68 and 9 cred. above 59) (<i>Not offered</i>)				
195	<i>Introduction to Old Norse Language and Literature</i> —Old Norse phonology and morphology. Survey of Old Icelandic history and literature (The same as Scandinavian 195) (4 cred.; sr., grad.; prereq. 113) (<i>Not offered</i>)				

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

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

§ This course presupposes no knowledge of the German language.

Courses for Graduate Students

COURSES IN GERMAN LITERATURE

- 253-254-255 *Seminar: Literary Problems* (9 cred.; grad.; prereq. 101-102-103 or equivalent and 9 additional credits in German Literature)
- German Baroque Literature: from the Renaissance to the Age of Reason* (Not offered)
 - Goethe and the Middle Class Tradition* (Not offered)
 - Romanticism* (Not offered)
 - Nineteenth Century Drama: Kleist, Grillparzer and Hebbel* (Not offered)
 - The Problem of Tragedy in Modern Drama* (Not offered)

COURSES IN LINGUISTICS AND PHILOLOGY

- 218f-219w-220s *Seminar: Germanic Languages and Literature* (9 cred.; grad.; prereq. at least 2 Germanic dialects)
- Problems in Middle High German Literature* (Not offered)
 - Texts in Germanic Dialects*—Their linguistic, literary and cultural background (Not offered)
 - Old High German—Linguistic interpretation of texts

Ar

Ar

Ar

Ar

GREEK

See Classics, page 34.

HISTORY

Major advisers in the College of Science, Literature, and the Arts—Professors Krey, 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. Wolf
	Rec. Secs.*	II	M	14P	
		II	W	14P	
		II	F	14P	
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	14P	
		II	Th	14P	
		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	14P	
4f-5w-6s	English History—England since prehistoric times (9 cred.; no prereq.)				
		II	MWF	209EdH	Mr. Burt
		IV	MWF	221Bu	Mr. Krey, Miss Thompson
14f-15w-16s	Ancient Civilization (9 cred.; no prereq.)				
	Lect.	VII	TTh	221Bu	Mr. Heller
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	221Bu	Mr. Heaton
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.)				
	Lect.	II	TTh	206Pt	Mr. Stephenson,
	Rec. Secs.*	II	S	14P	Mr. Osgood,
		IV	M	14P	Mrs. Tyler
		IV	W	14P	
		VI	T	14P	
		VII	T	112Bu	

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.

* Recitation sections in Courses 1f, 2w, 3s and 20f, 21w and 22s will not meet until after the first lecture.

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 17.

No.	Title	Hour	Day	Bldg.	Instructor
50-51-52	<i>History of Greece to 200 B.C.</i> (9 cred.; jr., sr.) (Not offered)				
50a-51a-52a	<i>History of Rome</i> (9 cred.; jr., sr.) (Not offered)				
50b-51b-52b	<i>History of the Ancient Near East</i> (9 cred.; jr., sr.) (Not offered)				
53-54-55	<i>Medieval European History</i> —53: Decline of the Roman Empire; 54: The Feudal Age; 55: The Crusades, Gothic Architecture, Thomas Aquinas (9 cred.; jr., sr.) (Not offered—offered in alternate years)				
53af-54aw-55as	Renaissance and Reformation—53a: The Age of Dante and Petrarch; 54a: Italian Renaissance; 55a: The European Renaissance and Reformation (9 cred.; jr., sr.)	III	MWF	112Bu	Mr. Krey
56f-57w-58s	Continental Europe—56f: 1559-1661, the Era of the Thirty Years' War; 57w: 1661-1774, the Age of Louis XIV, the "Age of Reason" and the "Enlightened Despots"; 58s: 1774-1815, the French Revolution and the Napoleonic Empire (9 cred.; jr., sr.)	IV	MWF	111Bu	Mr. Steefel
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
59-60-61	<i>Continental Europe</i> —59: Reconstruction after the Napoleonic Wars, Liberalism and Nationalism, the Revolutions of 1820, 1830, 1848; 60: Napoleon III, the First "Modern" Dictator; the Kingdom of Italy and the Second German Reich; 61: 1871-1914, Forty Years of Peace and Preparation for War (9 cred.; jr., sr.) (Not offered—offered in alternate years)				
62f-63w-64s	European Overseas Expansion—62f: Voyages of Discovery and Overseas Expansion, 1400-1600; 63w: Colonial Rivalries in the West Indies, East Indies, and India, 1600-1815; 64s: Imperialism since 1850 (9 cred.; jr., sr.)	II	MWF	111Bu	Mr. Willson
65f-66w-67s	Europe in the Twentieth Century (9 cred.; jr., sr.)	I	MWF	112Bu	Ar
68w-69s	American History since 1900 (6 cred.; jr., sr.)	VII	MWF	221Bu	Mr. Stephenson
68af-69aw	The Immigrant in American History and Life—A chapter in social, religious, cultural, and political history (6 cred.; jr., sr.)	III	MWF	111Bu	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 4-5-6, 1-2-3, or in all their college work, and to all jrs. and sr.s.)	I	MWF	111Bu	Miss Thompson, Mr. Willson
73-74-75	<i>Modern England</i> —73: Tudors and Stuarts to 1640; 74: The Later Stuarts and the Eighteenth Century, 1640-1815; 75: England since 1815 (9 cred.; jr., sr.) (Not offered—offered in alternate years)				
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
80-81-82	<i>Introduction to Economic History</i> —80: Economic Life in Ancient and Medieval Times; 81: Economic Developments in the Early Modern World; 82: Economic Developments since 1750 (9 cred.; jr., sr.) (Not offered—offered in alternate years)				
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	TThS	111Bu	Mr. Heaton
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
86af-87aw-88as	Social and Intellectual History of the United States (9 cred.; jr., sr.)	III	MWF	221Bu	Mrs. Tyler

No.	Title	Hour	Day	Bldg.	Instructor
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.)				
		VI	MWF	112Bu	Ar
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	Ar
97f-98w-99s	Minnesota and the Northwest (9 cred.; jr., sr.)				
		III	TThS	112Bu	Mr. Blegen

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.

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—Cultural history of Egypt</i> (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
156f-157w-158s	<i>Selected Readings in Modern European History</i> (9 cred.; sr., grad.)				
		Ar	Ar	Ar	Mr. Steefel, Mr. Wolf
170f-171w-172s	<i>Selected Readings in English History—Tudor and Stuart periods</i> (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 1300-1700</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	VI, VII	Th	111Bu	Mrs. Tyler
	The Far West	VIII, IX	W	339Lib	Mr. Osgood
	<i>Social Aspects of American History with Special Reference to the Northwest</i> (<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, 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 open to them in home economics should inquire at 106 Folwell Hall as to how and when they may register for those courses.

HOW TO STUDY

See General Studies, page 48.

HUMAN ANATOMY

See Anatomy (Human), page 17.

HUMAN PHYSIOLOGY

See Physiology, page 84.

HUMANITIES

Major Advisers in the College of Science, Literature, and the Arts—Professor Castell.

A Major in the Humanities will be offered to students under the general provisions of the *Curriculum in Liberal Arts* which are stated on pages 11-15 of the Bulletin of the College of Science, Literature, and the Arts for 1945-46. It is recommended that at least one of the Humanities Courses 1-2-3, 5-6-7, 10-11-12 be taken in the Junior College. Two of these courses will be required. The other one may be taken in the Senior College. For information as to what Senior College courses will be required, students should consult with Professor Castell (Room 323 Folwell Hall).

Junior College Courses

Junior College courses in Humanities are listed in this bulletin under the heading "General Studies." See page 49.

Senior College Courses

97f-98w-99s Humanities Proseminar—A one-year proseminar required of all students majoring in the humanities (2 cred. per qtr.; jr., sr; prereq. consent of instructor)

Ar

Ar

Ar

Mr. Castell

ITALIAN

See Romance Languages, page 98.

JAPANESE

1f-2w-3s Beginning Japanese (15 cred.; no prereq.)

VII

MTWThF 115F

Miss Syro-Boiarsky

JOURNALISM

Major advisers in the College of Science, Literature, and the Arts—Professors Casey, Barnhart, Charnley, and Nafziger; Associate Professor Ford; Assistant Professor 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, book editing and publishing; (5) radio news processing and radio script writing; (6) public relations; (7) agricultural journalism—consult *Journalism-Agriculture* major sequence and 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 2; 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 desiring to supplement their journalism-advertising courses, the following minor sequence is provided: B.A. 77 and 88 and Psychology 56 (required); and two additional courses selected from among Journalism 65, Drawing 64, B.A. 69, B.A. 194, and either Journalism 130 or Psychology 140. Junior College prerequisites are Economics 6-7 and Psychology 1-2 (except that either Economics 5 or B.A. 70 is prerequisite for B.A. 194).

Individualized programs for veterans—Programs for veterans will be adjusted to meet the special aptitudes and training of veterans and their period of residence in the University. Students should consult journalism advisers before preparing their programs.

Several courses offered by the School of Journalism give special attention to communications and public opinion problems. Among them are 63, 111, 115, 130-131, and 205. Other courses of general interest are 5 and 103.

Adviser for students in all colleges—Professor Casey.

Combined curriculum in Journalism and Agriculture—This curriculum is intended for those who wish to prepare for some branch of journalism which relates to agriculture. Students intending to major in agricultural journalism may register in the College of Science, Literature, and the Arts or in the College of Agriculture, Forestry, and Home Economics. For the complete curriculum, students should consult advisers in either the School of Journalism or in the office of the dean of the College of Agriculture, Forestry, and Home Economics.

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, 110, 111, and 130 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 10, 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
10f,w,††	Photography—Fundamental principles of photography: the use of cameras, developing, printing and other elementary techniques (the same as Fine Arts 10) (3 cred.; soph., jr., sr.; no prereq.)	V	T	311MurH	Mr. Hill
	Lect.	VII, VIII	MW	20MurH	Mr. Hill
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)	VI	MW	308MurH	Mr. Kildow
	Lect.	VI, VII, VIII	TTh	212MurH	
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)	VI, VII, VIII	MW	212MurH	Mr. Kildow
	Sec. 1	I, II, III	TTh	212MurH	Mr. Charnley
	2	VII, VIII, IX	TTh	212MurH	Mr. Mickelson
	3				
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
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§)	VII, VIII, IX	MW	212MurH	Mr. Mickelson
	Sec. 1 (winter)	I, II, III	TTh	212MurH	Mr. Charnley
	2 (winter)	VI, VII, VIII	MW	212MurH	Mr. Nafziger
	Sec. 1 (spring)	I, II, III	TTh	212MurH	Mr. Charnley
	2 (spring)	VII, VIII, IX	TTh	212MurH	Mr. Mickelson
	3 (spring)				
41w‡	Editing for Nonmajors (not open to the director of the School of Journalism) (3 cred.; jr., sr.; prereq. 12 or 13)	S. L. and A.			students without permission of the
	Lect.	IV	MW	420MurH	Mr. Ford
	Lab. Sec. 1	VI, VII	Th	206MurH	
	2	VIII, IX	M	206MurH	
	3	I, II	F	206MurH	

* 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.

† 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 \$5 is charged for this course.

§ May be taken at the same time.

Senior College Courses

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 17.

No.	Title	Hour	Day	Bldg.	Instructor
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	Ar
	Lab. (Winter quarter)				
	Sec. 1	VIII, IX	TTh	206MurH	Ar
	2	VI, VII	WF	206MurH	Mr. Nafziger
	3	I, II	TTh	206MurH	Mr. Kildow
51s††	News Editing (3 cred.; jr., sr.; prereq. 12 or 14)				
	Lect.	IV	T	308MurH	Mr. Kildow
	Lab. Sec. 1	VII, VIII	M	206MurH	Ar
	2	II, III	T	206MurH	Ar
	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.	VII	M	311MurH	Mr. Barnhart
	Lab. Sec. 1	VIII, IX	MW	315,320MurH	
	2	VI, VII	TTh	315,320MurH	
	3	I, II	MW	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) (<i>Not offered</i>)				
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
65f*	Graphic Arts: Processes—Discussion of reproduction processes—letter press, planography, intaglio; also engravings, inks, paper stocks, 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)				
	Lect.	VII	M	308MurH	Mr. Kildow
	Lab.	VII, VIII	WF	20MurH	
67f,w,s	Radio News Writing (3 cred.; jr., sr.; prereq. 15)				
	Lect.	VII	WF	302MurH	Mr. Mickelson
	Lab.	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, 69 or 73 and consent of instructor)				
		VI	MWF	302MurH	Mr. Charnley

* 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.

† A fee of \$5 is charged for this course.

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

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

No.	Title	Hour	Day	Bldg.	Instructor
EdT74	Teachers Course in Journalism (This course is listed among the College of Education courses 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
92	<i>Wartime Propaganda and Censorship</i> (2 cred.; jr., sr. of all colleges who have not completed 130 or 131; no prereq.) (<i>Not offered</i>)				
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
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

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

For Graduate Students Only

No.	Title	Hour	Day	Bldg.	Instructor
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

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

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. Mandel- baum
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CLASSICS

106f,107w	Introduction to the Study of Language (3 cred. per quarter; jr., sr., grad.; prereq. any two courses numbered above 50 in a foreign language)	VII	MWF	108F	Mr. Ogle
108s	Cultural Aspects of Language (3 cred.; jr., sr., grad.; prereq. any two courses numbered above 50 in a foreign language)	VII	MWF	108F	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)	III	MWF	110F	Mr. Ogle

ENGLISH

100f	Old English (4 cred.; jr., sr., grad.; prereq. 6 cred. above 50)	II	TWThF	205F	Mr. Allen
102w	Old English Poetry (3 cred.; jr., sr., grad.; prereq. 100)	II	MWF	204F	Mr. Allen

* 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.

No.	Title	Hour	Day	Bldg.	Instructor
103s	Beowulf (3 cred.; jr., sr., grad.; prereq. 100)	II	MWF	204F	Mr. Allen
160-161	History of the English Language (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; not open to students who have taken 100)	VI	MWF	302F	Mr. Allen
174w	American English (3 cred.; jr., sr.; prereq. 6 cred. above 50)	VI	MWF	205F	Mr. Allen

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

110f-111w-112s†	Middle High German—Linguistic introduction and reading in Middle High German literature (9 cred.; sr., grad.; prereq. 68 and 11 cred. above 59)	Ar	Ar	Ar	Mr. Reichardt
113-114-115	Gothic and Old High German (The same as Scandinavian 113-114-115) (9 cred.; sr. with completed major sequence, grad.) (<i>Not offered</i>)				
	113 Gothic—Introduction to Germanic linguistics (4 cred.) (<i>Not offered</i>)				
	114 Gothic Texts (2 cred.) (<i>Not offered</i>)				
	115 Old High German (<i>Not offered</i>)				
125	History of the German Language (3 cred.; sr., grad.; prereq. 68 and 11 credits above 59) (<i>Not offered</i>)				
126	Historical German Grammar (3 cred.; sr., grad.; prereq. 110-111-112 or 113-114-115) (<i>Not offered</i>)				
195	Introduction to Old Norse Language and Literature—Old Norse phonology and morphology. Survey of Old Icelandic history and literature (The same as Scandinavian 195) (4 cred.; sr., grad.; prereq. 113) (<i>Not offered</i>)				

SCANDINAVIAN

113-114-115	Gothic and Old High German (The same as German 113-114-115) (9 cred.; sr. with completed major sequence, grad.) (<i>Not offered</i>)				
	113 Gothic—Introduction to Germanic linguistics (4 cred.) (<i>Not offered</i>)				
	114 Gothic Texts (2 cred.) (<i>Not offered</i>)				
	115 Old High German (<i>Not offered</i>)				
185	History of Scandinavian Languages (3 cred.; sr., grad.; prereq. Scand. 4-5-6 or 10-11-12 or at least one Germanic language) (<i>Not offered</i>)				
195	Introduction to Old Norse Language and Literature—Old Norse phonology and morphology. Survey of Old Icelandic history and literature (The same as German 195) (4 cred.; sr., grad.; prereq. 113) (<i>Not offered</i>)				

LINGUISTICS

121-122-123†	Introduction to Arabic Grammar and Reading (9 cred.; jr., sr., grad.; prereq. two courses above 50 in any foreign language) (<i>Not offered</i>)				
131-132	Introduction to Sanscrit (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	Introduction to Old Irish Language and Literature (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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† To receive credit for any part of this course a student must complete the parts preceding the dagger.

FRENCH

No.	Title	Hour	Day	Bldg.	Instructor
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

218f-219w-220s	Seminar: Germanic Languages and Literature (9 cred.; grad.; prereq. at least 2 Germanic dialects)				
	<i>Problems in Middle High German Literature (Not offered)</i>				
	<i>Texts in Germanic Dialects—Their linguistic, literary, and cultural background (Not offered)</i>				
	Old High German—Linguistic interpretation of texts	Ar	Ar	Ar	Ar

SPANISH

241f-242w-243s	Old Spanish Philology (6 cred.)	VIII, IX	F	203F	Mr. Grismer
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MATHEMATICS

Major advisers in the College of Science, Literature, and the Arts—Professors Brink, Bussey, 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—Professor Hart.

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 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	104F	Ar
	3	VI	MTWThF	102F	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-8w, and 1f-15w; at III hour, 1f-6w; at VI hour, 1f-6w.					
1w*	Higher Algebra (See 1f)				
	Sec. 1	I	MTWThF	124F	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	105F	Ar
	2	III	MTWThF	125F	Ar
6w**	Trigonometry (See 6f)				
	Sec. 1	III	MTWThF	104F	Ar
	2	VI	MTWThF	102F	Ar
6s**	Trigonometry (See 6f)				
	Sec. 1	I	MTWThF	124F	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	VI	MTWThF	105F	Ar
7w§**	College Algebra (See 7f)				
	Sec. 1	II	MTWThF	105F	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	101F	Ar
14w	Solid Geometry (3 cred.; prereq. plane geometry and higher algebra)				
		IV	MWF	104F	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

* 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
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)				
		II	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 17.

50f	Calculus I—Differential Calculus (5 cred.; jr., sr.; prereq. 30)				
		III	MTWThF	102F	Ar
50w	Calculus I—Differential Calculus (See 50f)				
		I	MTWThF	101F	Ar
50s	Calculus I—Differential Calculus (See 50f)				
		II	MTWThF	101F	Ar
51w	Calculus II—Integral Calculus (5 cred.; jr., sr.; prereq. 50)				
		III	MTWThF	102F	Ar
51s	Calculus II—Integral Calculus (See 51w)				
		I	MTWThF	101F	Ar
60s	Synthetic Metric Geometry (3 cred.; jr., sr.; prereq. 30)				
		VI	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>)				
102-103	<i>Advanced Analytic Geometry</i> (6 cred.; jr., sr., grad.; prereq. 51) (<i>Not offered</i>)				
105f	Intermediate Calculus (5 cred.; jr., sr., grad.; prereq. 51)				
		II	MTWThF	101F	Ar
105s	Intermediate Calculus (See 105f)				
		III	MTWThF	104F	Ar
106f	Differential Equations (3 cred.; jr., sr., grad.; prereq. 51)				
		IV	MWF	101F	Mr. Hart
107w-108s	Advanced Calculus (6 cred.; jr., sr., grad.; prereq. 105)				
		IV	MWF	101F	Mr. Hart
109f	Theory of Numbers (3 cred.; jr., sr., grad.; prereq. 51)				
		II	MWF	104F	Mr. Bussey
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.) (<i>Not offered</i>)				
115	<i>Differential Geometry</i> (3 cred.; jr., sr., grad.; prereq. 136) (<i>Not offered</i>)				
118-119-120	<i>Vectors and Matrices</i> (9 cred.; jr., sr., grad.; prereq. 51) (<i>Not offered</i>)				
121-122-123	<i>Mathematical Theory of Statistics</i> (9 cred.; jr., sr., grad.; prereq. 51) (<i>Not offered</i>)				
125s	Theory of Geometrical Constructions (3 cred.; jr., sr., grad.; prereq. 30)				
		II	MWF	104F	Mr. Bussey
131	<i>Advanced Algebraic Theory</i> (3 cred.; jr., sr., grad.; prereq. 62 or 105) (<i>Not offered</i>)				

* 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.

No.	Title	Hour	Day	Bldg.	Instructor
136f	Solid Analytic Geometry (3 cred.; jr., sr., grad.; prereq. 50 or registration in 50)	VII	MWF	102F	Ar
137s	Advanced Theory of Equations (3 cred.; jr., sr., grad.; prereq. 51, 62).	VII	MWF	104F	Ar
140w	Projective Geometry (3 cred.; jr., sr., grad.; prereq. 51 or consent of instructor)	II	MWF	104F	Mr. Bussey
142	<i>Theory of Invariants</i> (3 cred.; jr., sr., grad.; prereq. 131 or 137) (<i>Not offered</i>)	VIII	MWF	103F	Mr. Jackson
144f-145w-146s	Topics in Analysis (9 cred.; jr., sr., grad.; prereq. 51)	VIII	MWF	103F	Mr. Jackson
149	<i>Introduction to Group Theory</i> (3 cred.; jr., sr., grad.; prereq. 51, 62) (<i>Not offered</i>)	VIII	MWF	103F	Mr. Jackson

For Graduate Students Only

206f-207w-208s	Theory of Functions (9 cred.; grad.; prereq. 108)	II	TThS	104F	Mr. Brink
245f-246w-247s	Advanced Theory of Functions (9 cred.; grad.; prereq. 208)	VI	MWF	103F	Mr. Cameron
271-272-273	<i>Theory of Linear Differential and Integral Equations</i> (9 cred.; grad.; prereq. 206 or registration in 206) (<i>Not offered</i>)				

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.

MARRIAGE

See General Studies, page 50.

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 qualifying 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.

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, 76, 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.

* All students majoring in organ or piano will also 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.

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
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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-5Tfw-6Ts	Music Theory—Continuation of Music Theory 1T-2T-3T (12 cred.; prereq. 3T)	VI	MTWThF	3Mu	Miss Malcolm
1f,w,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. 1T-2T-3T)	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 74.

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 may take 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 74.

§ 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 or Saxophone	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)	7:00 p.m.	T	NMA	Mr. Oberg
43f-44w-45s¶**	University Chorus (3 cred.; prereq. consent of director)	7:00-9:00 p.m.	T	BuAud	Mr. Killeen
43Uf-44Uw- 45Us	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.; no prereq.)	Ar	Ar	Ar	Mr. Rymer
46f-47w-48s*¶	Concert Band (3 cred.; prereq. consent of director)	4:25-5:30 p.m.	MTTh	4NMA	Mr. Martino

* Students may receive credit for two years of Concert Band.

† See statement of fees, page 74.

§ Students majoring in music may earn twelve credits in orchestra.

¶ Students may enter any quarter.

** Students may receive credit for two years of chorus.

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 17.

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

See General Studies, page 50.

NAVAL SCIENCE AND TACTICS

See the program of Naval Science and Tactics, page 11.

NORWEGIAN

See Scandinavian, page 104.

PHILOSOPHY

Major advisers in the College of Science, Literature, and the Arts—Professors Conger, Feigl, and 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 or Humanities 97-98-99 (Humanities Proseminar) 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 Proseminar, see page 63; and for other courses in Humanities, see page 49.

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
2Af-1Aw-3As	Selected Problems of Logic, Selected Problems of Philosophy, Selected Problems of 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 1Aw-3As without 2Af, or to 3As without 1Aw (3 cred. per qtr.; open to prelegal fr., some other fr.,* and to soph., jr., sr.; no prereq.)		VI	MWF 322F	Mr. Castell
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.)				
	Sec. 1	IV	MTWFS	311F	Mr. Norborg
	2	IV	MTWFS	321F	Mr. Conger
	3	VII	MTWThF	321F	Mr. Everett

* 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.

PHILOSOPHY

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No.	Title	Hour	Day	Bldg.	Instructor
1w	Problems of Philosophy (See 1f)	III	MTWThF	321F	Mr. Conger
1s	Problems of Philosophy (See 1f)	I	MTWThF	321F	Mr. Conger
1As	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.)	VIII	MWF	322F	Miss Shaw
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.)	III	MTWThF	321F	Mr. Oliver
2w	Logic (See 2f)				
	Sec. 1	I	MTWThF	321F	Mr. Oliver
	2	II	MTWThF	321F	Ar
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.)	VIII	MWF	322F	Miss Shaw
2s	Logic (See 2f)				
	Sec. 1	VII	MTWThF	321F	Mr. Everett
	2	IV	MTWFS	311F	Mr. Norborg
	3	IV	MTWFS	321F	Mr. Oliver
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.)				
	Sec. 1	I	MTWThF	321F	Mr. Everett
	2	II	MTWThF	321F	Ar
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	Miss Shaw
3w	Ethics (See 3f)				
	Sec. 1	IV	MTWFS	321F	Mr. Everett
	2	IV	MTWFS	311F	Mr. Norborg
	3	VII	MTWThF	321F	Mr. Everett
3s	Ethics (See 3Af)	III	MTWThF	321F	Mr. Everett
10s	Science and Religion (2 cred.; soph., jr., sr.; no prereq.)	VII	TTh	322F	Mr. Norborg
20w	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.)	VI	MWF	321F	Mr. Everett
20s	Social Philosophy (See 20f—This spring quarter section is particularly designed to explore the future of democratic life in America.)	VI	MWF	321F	Mr. Brameld

Senior College Courses

Course 70 is open to sophomores who have an average grade of at least C in all their work. 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 17.

50f-51w-52s§	General History of Philosophy (9 cred.; jr., sr.; no prereq.)	III	MWF	322F	Miss Shaw
50Af-51Aw-52As§	Readings in Philosophical Classics (6 cred.; jr., sr.; no prereq.)	III	TTh	322F	Miss Shaw

* 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
59f	Esthetics—An inquiry into the nature of the sense of beauty, followed by studies of various theories of art, and of the social and humanistic implications of the arts (3 cred.; jr., sr.; no prereq.)	VII	MWF	322F	Mr. Ferguson
70f†	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.)	IV	MWF	301F	Miss Shaw
73w	Philosophy of Law—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.)	IV	MWF	322F	Ar
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	M	316F	Mr. Feigl
106f-107w	Philosophy of Plato (6 cred.; jr., sr., grad.; prereq. 6 cred. including Course 50)	VIII	MWF	321F	Mr. Norborg
110	Rationalism—The philosophies of Descartes, Spinoza, and Leibniz (3 cred.; jr., sr., grad.; prereq. 6 cred.) (<i>Not offered</i>)				
111	Empiricism—Philosophies of Locke, Berkeley, Hume (3 cred.; jr., sr., grad.; prereq. 6 cred.) (<i>Not offered</i>)				
111Aw	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.)	VII	MWF	322F	Miss Shaw
112s	Kant (3 cred.; jr., sr., grad.; prereq. 6 cred.)	VIII	MWF	321F	Mr. Norborg
113s	Kierkegaard and Scandinavian Philosophy (3 cred.; jr., sr., grad.; prereq. 6 cred.)	VII	MWF	322F	Mr. Norborg
114f	American Philosophy from Puritanism to Pragmatism—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)	IV	MWF	322F	Mr. Castell
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	
116s	Philosophy of John Dewey—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.)	III	MWF	304F	Mr. Oliver
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	302F	Mr. Conger
135s	Philosophy in Modern Literature—A survey of the basic philosophical ideas in twentieth century civilization as they are expressed in major works of contemporary literature. Lectures on Spengler, Marx, Darwin, Freud, and others. Readings and discussions of Ibsen, Proust, Joyce, Tolstoy, Shaw, Huxley, Dostoevski, and others (3 cred.; jr., sr., grad.; prereq. consent of instructor)	I	MWF	322F	Ar
143f	Theory of Knowledge—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.; no prereq.)	IV	MWF	213F	Mr. Feigl

† No student may receive credit for both Philosophy 70 and Political Science 162.

No.	Title	Hour	Day	Bldg.	Instructor
147s	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.)	IV	MWF	306F	Mr. Feigl
153w	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.)	IV	MWF	213F	Mr. Feigl
155w	Metaphysics (5 cred.; jr., sr., grad.; prereq. 6 cred.)	VII	MTWThF	302F	Mr. Conger
164s	Ethical Theory—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)	VI	MWF	306F	Mr. Everett
165	<i>Political and Social Ethics</i> (3 cred.; jr., sr., grad.; prereq. 6 cred.) (<i>Not offered</i>)				
170f	Philosophy of History—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.)	VII	MWF	302F	Mr. Norborg
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 according to students' interests, e.g., see courses marked Ar (9 cred.; sr., grad.; prereq. 9 credits or consent of instructor)	Ar	Ar	Ar	Mr. Feigl, Mr. Conger, and others

Courses Primarily for Graduate Students

191f-192w-193s	See above				
241f-242w-243s	Seminar: Philosophy of the Physical Sciences (3 cred. per qtr.; no prereq.)	Ar	Ar	Ar	Mr. Feigl
244f-245w-246s	Seminar: Philosophy of Biology and Psychology (3 cred. per qtr.; no prereq.)	Ar	Ar	Ar	Mr. Feigl
247-248-249	<i>Seminar: Logic of the Exact Sciences</i> (3 cred. per qtr.; no prereq.) <i>Not offered—offered in alternate years</i>				
250-251-252	<i>Seminar: Philosophy of the Social Sciences</i> (3 cred. per qtr.; no prereq.) <i>(Not offered—offered in alternate years)</i>				

PHYSICAL EDUCATION FOR MEN

See the program of Physical Education for Men, page 11.

PHYSICAL EDUCATION FOR WOMEN

See the program of Physical Education for Women, page 12. Of the courses listed there, Course 54 "Camp Leadership" (2 credits, no prerequisite) is regularly open to S. L. and A. students for credit. The other courses are elective without credit.

PHYSICS

Major advisers in the College of Science, Literature, and the Arts—Professors Buchta, and Valasek; Associate Professor Wall.

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—Courses 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, 134, 136, 144.

Minor recommendation: The above general course 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. Buchta
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)				
	Lect.	III	MWF	166Ph	Mr. Buchta
	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)				
	Lect. and quiz	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		
4s†	General Physics (See 4f-5w-6s)				
	Lect. and quiz	III	MTWThF	133Ph	Mr. Valasek
	Lab. Sec. 1	VI, VII	M	Ar	Mr. Wall
	2	VIII, IX	M		and assistants
	3	VIII, IX	T		
	4	VI, VII	Th		
	5	I, II	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
6f†	General Physics (See 4f-5w-6s) This course is for students who have had Physics 4 or equivalent.				
	Lect. and quiz	III	MTWThF	133Ph	Mr. Valasek
	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		
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		
7s†	General Physics (See 7f-9w-8s)				
	Lect. and quiz	III	MTWThF	133Ph	Mr. Valasek
	Lab. Sec. 1	VI, VII	M	Ar	Mr. Wall
	2	VIII, IX	M		and assistants
	3	VIII, IX	T		
	4	VI, VII	Th		
	5	I, II	S		
8f†	General Physics (See 7f-9w-8s)				
	Lect.	III	MTWThF	133Ph	Mr. Valasek
	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 17.

52†	Laboratory Arts (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)				
		I	MWF	145Ph	Mr. Hill
101f-103w-105s	Theoretical Physics (15 cred.; jr., sr., grad.; prereq. 100-102-104, Math. 106 or registration in 106)				
		Ar	Ar	145Ph	Mr. Hill
107f-109w-111s	Modern Physics (9 cred.; jr., sr., grad.; prereq. 15 cred. in physics, Math. 51)				
		Ar	Ar	Ar	Mr. Wall
110w-112s†¶	Modern Experimental Physics (3 or 4 cred. per qtr.; jr., sr., grad.; prereq. 144)				
		VI-IX	TTh	145Ph	Mr. Williams
113	Intermediate Acoustics (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

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

‡ See note about prerequisites on page 82.

¶ Students may enter any quarter.

No.	Title	Hour	Day	Bldg.	Instructor
131f	Geometrical Optics—Theory of mirrors, prisms, and lenses. Optical instruments (3 cred.; jr., sr., grad.; prereq. 15 cred. in physics, Math. 51)	Ar	Ar	Ar	Mr. Valasek
133w	Physical Optics. Theory of interference and interferometers. Theory of diffraction, resolving power, and diffraction gratings. Polarized light, crystal optics, and applications (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
135s	Spectroscopy. Light sources, instruments and methods used in spectroscopy of the X-ray, ultra-violet, visible, and infra-red regions of the spectrum (3 cred.; jr., sr., grad.; prereq. 15 credits in physics, Math. 51)	Ar	Ar	Ar	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	
146s†	Physics of Vacuum Tubes and Associated Circuits—Thermionics (3 cred.; prereq. 144 and permission of instructor)	Ar	Ar	232Ph	Mr. Wall
152s	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) (<i>Not offered</i>)				
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
	Demonstration	VI	F	Ar	
	Lab. Sec. A	I, II	T	310MH	
	B	VIII, IX	M	310MH	
	C	VIII, IX	Th	310MH	

* Will not count for credit for admission to the Medical School except by permission of the dean of that school.

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

†† The student must purchase a \$5 chemistry card from the bursar in the Administration Building. No student will be assigned a desk in the laboratory until he presents this card. The cost of special chemicals, non-returnable equipment and breakage will be charged against the deposit.

‡ Others may be admitted by special permission.

No.	Title	Hour	Day	Bldg.	Instructor
1s*††	Elements of Physiological Chemistry (See 1f)				
	Lect. and quiz	II	MWF	Ar	Dr. Barnum and others
	Lab. Sec. 1	VI, VII	M	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	II, III	Th	301MH	
	B	VI, VII	Th	301MH	
	C	VIII, IX	T	301MH	
2w*	Elements of Physiology (See 2f)				
	Lect. and quiz	I	TS	Ar	Mrs. Coe and others
	Lab. Sec. A	VII, VIII	F	Ar	
	B	II, III	F	Ar	
2s*	Elements of Physiology (See 2f)				
	Lect. and quiz	III	TS	Ar	Mrs. Coe and others
	Lab.	VI	Th		
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
	Conference	VII	T	Ar	

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 17.

50f	Physiological Chemistry (4 cred.; primarily for phys. ed. students§; jr., sr.; prereq. inorganic chemistry)	VI	MTWThF	Ar	Dr. Michelson 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	MTWF	MH	Dr. Keys and others
56su	Physiological Chemistry (2 cred.; primarily for dental students§; jr., sr.; prereq. org. chem.)	VI, VII, VIII, IX	T	MH	
57f	Physiological Chemistry (6 cred.; jr., sr.; prereq. 56)	I	WS	Ar	Dr. Armstrong, Dr. Burr, and others
58w*	Lect.	I	WFS	Ar	Dr. Armstrong,
	Quiz	II	S		Dr. Wood,
	Lab.	VI, VII, VIII	T		Dr. Utter,
		II, III, IV	F		Dr. Holman
58w*	Human Physiology (5 cred.; primarily for dental students§; sr.; prereq. zool. and Physiol. 56, 57)				
	Lect.	I	TThS	Ar	Dr. King
	Quiz	II	S	Ar	and others
	Lab.	II, III, IV	T	Ar	

* Will not count for credit for admission to the Medical School except by permission of the dean of that school.

†† The student must purchase a \$5 chemistry card from the bursar in the Administration Building. No student will be assigned a desk in the laboratory until he presents this card. The cost of special chemicals, non-returnable equipment and breakage will be charged against the deposit.

§ Others may be admitted by special permission.

No.	Title	Hour	Day	Bldg.	Instructor
59s*	Human Physiology (5 cred.; sr.; prereq. 58 or equiv.)				
	Lect.	I	TThS	Ar	Dr. King
	Quiz	II		S Ar	and others
	Lab.	II, III, IV		T Ar	
60s	Human Physiology (6 cred.; primarily for Medical Technology and 5-year nursing students)				
	Lect.	IV	MTWF	Ar	Dr. Lorber
	Conference	II		S	and others
	Lab. (Med. Tech.)	VII, VIII, IX		F	
	(5-yr. nurses)	II, III		Th	
100f	Physiological Chemistry (7 cred.; jr., sr.; prereq. org. chem. and physics)				
	Lect.	IV	MTWF	Ar	Dr. Burr,
	Quiz	I		F	Dr. Armstrong,
	Lab.	VII, VIII, IX	WF	310MH	Dr. Barnum, Dr. Holman
101w	Physiological Chemistry (6 cred.; jr., sr.; prereq. 100)				
	Lect.	IV	TS	Ar	Dr. Burr,
		VI		F	Dr. Armstrong,
	Quiz	VI		T	Dr. Barnum,
	Lab.	VII, VIII, IX	WF	310MH	Dr. Holman
103s¶	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, and others
	Div. A	VI, VII, VIII	MW		
	B	II, III, IV	MW		
104f¶	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. Bittner, and others
	Div. A	9:00-11:20		M	
		1:30- 4:00		W	
	B	1:30- 4:00		M	
		9:00-11:20		W	
114	Physiology of Muscular Activity (1 or 2 cred.; jr., sr., grad.; prereq. 103 or 51 with grade of A or B) (<i>Not offered</i>)				
115	Measurements in Human Physiology (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 Christensen.

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

* Will not count for credit for admission to the Medical School except by permission of the dean of that school.

† Students may register for lectures without laboratory.

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, 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. See bulletin on Preparation for Foreign Service; consult Mr. Christensen or Mr. Quigley.

Major in foreign area study—A program of area study adaptable to both cultural and professional objectives and available through several departments will become effective in the fall quarter, 1945. Consult Mr. Christensen or 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 Short.

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. Christensen
1w-2s†	American Government and Politics (6 cred.; no prereq.)	III	MWF	206Pt	Mr. Weidner

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

No.	Title	Hour	Day	Bldg.	Instructor
5s§	American Government and Politics (Covers most of Course 1-2) (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 organizations; parties and elections (3 cred.; no prereq.)	II	TThS	211Bu	Mr. Hawkins
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. Weidner
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. Weidner
25f,w	World Politics—Introduction to contemporary international relations; the policies of the great powers; nationalism; imperialism; internationalism (3 cred.; no prereq.)	II	MWF	211Bu	Mr. Mills
	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.

80f	National Government in the United States—with special reference to current problems and developments (3 cred.; jr., sr.; no prereq. Not open to students who have had Pol. Sci. 1-2 or equiv.)	IV	MWF	211Bu	Mr. Short
85s	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	
97s	American and European Colonies of Today (3 cred.; jr., sr.; prereq. 6 cred. or consent of instructor)	III	MWF	111Bu	Mr. Mills
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
103s	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	American Constitutional Development (9 cred.; jr., sr., grad.; prereq. 9 cred. or Hist. 20-21-22) (Not offered)				
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
116f	Local Government: Areas and Organization (3 cred.; jr., sr., grad.; prereq. 9 cred. or consent of instructor)	III	MWF	204EdH	Mr. Weidner
117w	Local Government: Politics, Major Functions, Administration, and Central Supervision (3 cred.; jr., sr., grad.; prereq. 116 or consent of instructor)	III	MWF	204EdH	Mr. Weidner

§ 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
118	<i>Local Government: Legal Status, Powers, and Responsibilities</i> (3 cred.; jr., sr., grad.; prereq. 116) (<i>Not offered</i>)				
120f	<i>Municipal Functions</i> (3 cred.; jr., sr., grad.; prereq. 6 cred.)	II	TThS	209Bu	Mr. Ludwig
121w	<i>Municipal Administration</i> (3 cred.; jr., sr., grad.; prereq. 120 or consent of instructor)	II	TThS	209Bu	Mr. Ludwig
122s	<i>Municipal Problems</i> (3 cred.; jr., sr., grad.; prereq. 121 or consent of instructor)	II	TThS	209Bu	Mr. Ludwig
123f	<i>City Planning—General survey of the economic, governmental, social, and technical phases of city planning and group housing</i> (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
124f-125w	<i>Recent Social Legislation—With special reference to the fields of social security, labor, housing, and health</i> (6 cred.; jr., sr., grad.; prereq. 6 cred.)	VII	MWF	209Bu	Mr. Christensen
126-127	<i>Government and the Economic Order</i> (6 cred.; jr., sr., grad.; prereq. 9 cred.) (<i>Not offered</i>)				
131f	<i>Public Administration: Organization and Areas, Administrative Responsibility</i> (3 cred.; jr., sr., grad.; prereq. 6 cred.)	II	MWF	221Bu	Mr. Short
132w	<i>Public Administration: Personnel Administration</i> (3 cred.; jr., sr., grad.; prereq. 131 or consent of instructor)	II	MWF	221Bu	Mr. Short
133s	<i>Public Administration: Financial Administration</i> (3 cred.; jr., sr., grad.; prereq. 131 or consent of instructor)	II	MWF	221Bu	Mr. Short
135	<i>Problems of Public Planning</i> (2 cred. without term paper, 3 cred. with term paper; jr., sr., grad., and soph. with consent of instructor; prereq. 9 cred.) (<i>Not offered</i>)				
137w	<i>American Political Parties</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. or 12 cred. in soc. sci.)	I	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	<i>European Political Institutions</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. or 12 cred. in soc. sci.)	VI	MWF	209Bu	Mr. McClosky
142w	<i>European Parties and Politics</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. or 12 cred. in soc. sci.)	VI	MWF	209Bu	Mr. McClosky
148	<i>European Dictatorships</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. in pol. sci. or 12 cred. in soc. sci.) (<i>Not offered</i>)				
149	<i>Government and Politics of the British Empire—India and the tropical colonies</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. or consent of instructor) (<i>Not offered</i>)				
150	<i>Government and Politics of the British Empire—Development of Dominion Status</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. or consent of instructor) (<i>Not offered</i>)				
151	<i>British Problems of Closer Union—Problems of unity within the British Dominions; regional unions with adjacent states</i> (3 cred.; jr., sr., grad.; prereq. 149-150 with grade of C+ or better, or consent of instructor) (<i>Not offered</i>)				
153s	<i>Far Eastern Governments</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. or consent of instructor)	II	MWF	209Bu	Mr. Quigley
155s	<i>Government in Latin America</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. or consent of the instructor)	VII	MWF	209Bu	Mr. Christensen
160w	<i>American Political Thought</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. in pol. sci. or 12 cred. in soc. sci. or consent of instructor)	III	MWF	209Bu	Mr. McClosky
161s	<i>Problems of Democracy</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. in pol. sci. or 12 cred. in soc. sci. or consent of instructor)	III	MWF	209Bu	Mr. McClosky

No.	Title	Hour	Day	Bldg.	Instructor
162f‡	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	209Bu	Mr. Hawkins
164	<i>Development of Political Thought: Greece and Rome</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. in pol. sci. or 12 cred. in soc. sci. or consent of instructor) (<i>Not offered</i>)				
165	<i>Development of Political Thought: the Middle Ages</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. in pol. sci. or 12 cred. in soc. sci. or consent of instructor) (<i>Not offered</i>)				
166	<i>Development of Political Thought: Early Modern</i> (3 cred.; jr., sr., grad.; prereq. 6 cred. in pol. sci. or 12 cred. in soc. sci. or consent of instructor) (<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
180w	International Law I. The laws of peace (3 cred.; jr., sr., grad.; prereq. 9 cred.)				
		II		TThS 102F	Mr. Cooper
181s	International Law II. The laws of peace, concluded, and the laws of war (3 cred.; jr., sr., grad.; prereq. 180 or consent of instructor)				
		II		TThS 102F	Mr. Cooper
182	<i>International Law III.</i> (3 cred.; jr., sr., grad.; prereq. 180 or consent of instructor) (<i>Not offered</i>)				
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
195f	Colonial Government and the Problems of Imperialism—Motives of American, British, Dutch, French, and Spanish colonization; ancient and modern imperialism (3 cred.; jr., sr., grad.; prereq. 6 cred. or consent of instructor)				
		III		MWF 209EdH	Mr. Mills
196w	Colonial Government and the Problems of Imperialism—Varieties of Colonial Rule in Contemporary Empires (3 cred.; jr., sr., grad.; prereq. 195 or consent of instructor)				
		III		MWF 209EdH	Mr. Mills

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†	Readings in Administrative Law (3 cred.; grad.; prereq. 18 cred. in pol. sci. or consent of instructor)				
		One meeting a week		Ar Ar	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

† 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
229f-230w-231s	Scope and Methods of Political Science (3 cred.; grad.; prereq. admission to graduate major, or consent of instructor)	One meeting a week	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 Colonisation</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 94.

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.

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

Af,w,s‡	Elementary Psychology—An introduction to psychology with special attention to its applications (5 cred.; fr.,* soph.; no prereq.)				
		VI	MTWThF	101WeH	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.; 3rd quarter fr. with a C average, soph., jr., sr.; no prereq.)				
	Sec. 1	I	MWF	BuAud	Mr. Elliott
	2	III	MWF	BuAud	and others
1w-2sf§	General Psychology (See 1f-2w)	VIII	MWF	206Pt	Mr. Heron

* 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.

§ 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.

No.	Title	Hour	Day	Bldg.	Instructor
1s-2s†	General Psychology (6 cred.; 3rd quarter fr. with a C average, 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, Mr. Longstaff, 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.; 3rd quarter fr. with a C average, 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

Senior College Courses

In this department courses numbered between 50 and 90 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.

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	TTbS	115Psy	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	TTbS	115Psy	Mr. Elliott

† 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.

No.	Title	Hour	Day	Bldg.	Instructor
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. Meehl
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
124f	Psychology of Learning (3 cred.; jr., sr., grad.; prereq. 9 cred. in psy.)	III	TThS	109Psy	Mr. Heron
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				
135ff-136w†- 137s†	Occupational Counseling—Occupational information as used in counseling. Study of educational and occupational training opportunities and requirements. Psychological techniques in case analysis, interviewing, and remedial work. Types of vocational problems. Illustrative case histories (6 cred.; jr., sr., grad.; prereq. for 135-136, 9 cred. or consent of instructor; for 137, 130)	VIII, IX	M	211Psy	Mr. Brayfield
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 for 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 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

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

No.	Title	Hour	Day	Bldg.	Instructor
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, either 125 or Educ. Psy. 120 or 5 credits in statistics and 6 additional cred. in psy. or child welfare, or ed. psy.)	VI	MWF	115Psy	Mr. Meehl

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				
230-231-232	Field Work in Psychometrics and Applied Psychology				
250-251-252	Topics in Psychology				
256	Advanced Psychology of Advertising				
260-261-262	Seminar in the Applications of Psychological Methods to the Study of Nervous and Mental Diseases				
270-271-272	Seminar in Recent Literature of Psychology				
281-282-283	Clinical Practice in the Student Counseling Bureau				
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, 133 and Ed. 81; additional P.H. courses, 5 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 the Community (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 17.

No.	Title	Hour	Day	Bldg.	Instructor
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
50s§	Public and Personal Health (See 50f)	II	MWF	*	Dr. Potthoff
51f§	Community Hygiene (3 cred.; jr., sr.; prereq. 3, 50, or Human Biol. G.C. 10C in the General College; not open to students who have taken 4, 52, or 53)	II	MWF	*	Dr. Potthoff
51w§	Community Hygiene (See 51f)	VII	MWF	*	Dr. Potthoff
52af,s§	Health Care of the Family (2 cred.; soph., jr., sr.; prereq. Bact. 53, Physiol. 4; not open to students who have taken Course 50 or 51)	VI	MW	313HE	Dr. Todd
52bf,w,s§	Health Care of the Family—Laboratory (1 cred.; soph., jr., sr.; prereq. Bact. 53; Physiol. 4; not open to students who have taken Course 50 or 51) (Sections limited to 20)	Sec. 1 2	VII, VIII VII, VIII	T Th	01MeH(UF) Ar 01MeH(UF) Ar
53f,s	Elements of Preventive Medicine and Public Health (For nurses and students in pre-social work and others by permission) (5 cred.; prereq. 3 or 50, or equiv., and a course in bacteriology)	Lect. Rec. Sec. 1 2	II III VI	MWF TTh TTh	* * *
55w	Nursing and Social Problems in the Control of Gonorrhea and Syphilis (2 cred.; prereq. 53 and 62. Soc. 90 or 109 may be substituted by pre-social work students. Course 55 may be taken concurrently with any of these prerequisites)	VI	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, or 50, or 51, or 52, or 53)	II	MF	*	Dr. Boynton
58w	Maternal and Child Hygiene (For nurses only) (3 cred.; prereq. 53 and 62)	II	MF	*	Dr. Boynton
		and 1 hr. ar.			

* 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
59f,s	Health of the School Child (3 cred.; jr., sr.; prereq. 3 and 4, or 3 and 51, or G.C. 10C and 4, or G.C. 10C and 51, or 50, or 53; will be waived for teachers and school nurses, but credit granted only after completion of prereq.)				
	Schedule for 59f	VI	MWF	*	Miss Grout,
	Schedule for 59s	VIII	MWF	*	Dr. Todd
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 (Primarily for nurses; others admitted by special permission) (3 cred. per qtr.; jr., sr.; prereq. 53 or equivalent, but may be taken concurrently)				
	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
70w,s‡	Practice Teaching in Home Nursing for Public Health Nurses (Cred. ar.; jr., sr.; prereq. 67, Ed. 81, or permission of instructor) (Enrolment is limited)				
		Ar	Ar	*	Miss Grout, Ar
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
80w‡	Elementary Vital Statistics (3 cred.; public health nurses only; prereq. special permission of instructor)				
		Ar	Ar	Ar	Mr. Treloar
102w	Environmental Sanitation I (3 cred.; sr., grad.; prereq. 50 or 51 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, Mr. Bond
103f,w,s	Public Health Bacteriology (Cred. ar.; jr., sr., grad.; prereq. Bact. 101-102, 116 and permission of instructor)				
		Ar	Ar	*	Dr. Heathman
104w	Epidemiology I (3 cred.; jr., sr., grad.; prereq. 53 or 100 and consent of instructor)				
		I	TThS	*	Dr. Emerson
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	*	Dr. Emerson
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>)				

* 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 \$1 per credit is charged for this course.

†† A fee of \$50 a month is charged for this course.

§. On military leave.

¶ 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.

†† Students must maintain a C average in theory completed before they are admitted to field work.

No.	Title	Hour	Day	Bldg.	Instructor
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>)				
122w	Public Health Administration Problems (Cred. ar.; prereq. 106)	Ar	Ar *		Dr. Emerson
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)	VIII, IX	WF *		Miss Grout
126s	Industrial Health Problems (3 cred.; prereq. 53, Chem. 1-2 or equiv., or by permission of department)	Ar	Ar *		Dr. Foker, Miss Henriksen
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 *	Ar
	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 *		Ar
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
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.

* Classroom schedule will be posted on bulletin board outside of Room 121 Millard Hall at the beginning of each quarter.

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

BIOSTATISTICS

No.	Title	Hour	Day	Bldg.	Instructor
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	Miss Martin
120w	Correlation Analysis (3 cred.; sr., grad.; prereq. 110 or consent of instructor; to be taken with 121)	III	TThS	*	Miss Martin
121w‡	Correlation Laboratory (2 cred.; to be taken with 120)	Ar	Ar	118MH	Miss Martin
130s	Random Sampling Distributions (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	Miss Martin
140w‡	Vital Statistics (3 cred.; sr., grad.; prereq. permission of instructor)	Ar	Ar	118MH	Mr. Treloar
150w‡	Life Tables (3 cred.; prereq. permission of instructor)	Ar	Ar	*	Mr. Treloar
200f,w,s	Research in Biometry (Cred. ar.; prereq. permission of instructor)	Ar	Ar	*	Mr. Treloar
211f,w,s	Seminar in Biometry (1 cred.)	Ar	Ar	*	Mr. Treloar

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 Professors Grismer and Brackney; Assistant Professor Cleifton.

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

* 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.

§ For the duration of the war, the schedule of this class is uncertain. Students wishing to take it should consult the department.

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	
1af-2aw§	Beginning French—Conversational Section (10 cred.; no prereq.) Demonstration Plus Laboratory Drill	Sec. 1	I	MTWThF	6F	Ar
		2	VII	MTWThF	17F	Ar
		3	VIII	MTWThF	17F	Ar
			VIII	MTWThF	207F	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	201F	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	

§ The conversational method will be used in these sections. Substantially less home study will be required than in the standard sections. Registration in French 1af-2aw-3as is limited. Written permission must be obtained from Professor Sirich in Room 200 Folwell Hall or, during registration week in the fall, in Room 103 Folwell Hall.

No.	Title	Hour	Day	Bldg.	Instructor
3s	Intermediate French (1st qtr. of 3-4). (See 3f-4w)	I	MTWThF	227F	Ar
		VI	MTWThF	226F	Ar
3as§	Intermediate French—Conversational Section (5 cred.; prereq. 1af-2aw)				
	Demonstration	I	MTWThF	6F	Ar
	Plus Laboratory Drill Sec. 1	VII	MTWThF	17F	Ar
	2	VIII	MTWThF	17F	
	3	VIII	MTWThF	207F	
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
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 17.

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
53f	French Composition (3 cred.; jr., sr.; prereq. 3-4)	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
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
73w-74s	Survey of French Literature (10 cred.; jr., sr.; prereq. 3-4)	III	MTWThF	108F	Mr. Brackney
75f-76w-77s	French Civilization and Culture (9 cred.; jr., sr.; prereq. 3-4)	III	MWF	114F	Mr. Fermaud
80f	French Literature: 19th Century—Chateaubriand and Romantic Prose (3 cred.; jr., sr.; prereq. *)	II	MWF	201F	Mr. Barton
81	French Literature: 19th Century—Drama (3 cred.; jr., sr.; prereq. *) (Not offered)				
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	French Syntax and Composition (3 cred.; jr., sr., grad.; prereq. 63 or registration in 63) (Not offered)				
115f-116w-117s	French Literature: 17th Century (9 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

* Prerequisite is 70-71-72 or 73-74.

§ The conversational method will be used in these sections. Substantially less home study will be required than in the standard sections. Registration in French 1af-2aw-3as is limited. Written permission must be obtained from Professor Sirich in Room 200 Folwell Hall or, during registration week in the fall, in Room 103 Folwell Hall.

¶ Students who have had three years of high school French may be admitted to Course 20 with the consent of the department.

** Students may enter any quarter.

No.	Title	Hour	Day	Bldg.	Instructor
121-122-123	<i>French Literature: 16th Century</i> (9 cred.; jr., sr., grad.; prereq. 9 cred. in literature courses above 74 or permission of instructor) (<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>)				
132f	Baudelaire, Verlaine, Rimbaud (3 cred.; jr., sr., grad.; prereq.*)				
146w	Contemporary French Dramatic Literature (3 cred.; jr., sr., grad.; prereq.*)	Ar	Ar		Mr. Clefthon
156s	Modern Novel: France, Loti, Bourget (3 cred.; jr., sr., grad.; prereq.*)	II	MWF	201F	Mr. Barton
157	<i>French Novel, 1880-1915</i> (3 cred.; jr., sr., grad.; prereq.*) (<i>Not offered</i>)	VII	MWF	227F	Mr. Brackney
158	<i>Contemporary French Novel I</i> —Course conducted in French (3 cred.; jr., sr., grad.; prereq.*) (<i>Not offered</i>)				
159	<i>Contemporary French Novel II</i> —A continuation of French 158 (3 cred.; jr., sr., grad.; prereq.*) (<i>Not offered</i>)				
171f-172w-173st	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.)	Ar	Ar	Ar	

ITALIAN

Junior College Courses

1f-2w†	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
5w‡	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

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 17.

69	<i>Survey of Italian Literature I</i> (3 cred.; jr., sr.; prereq.§) (<i>Not offered</i>)				
70	<i>Survey of Italian Literature II</i> (3 cred.; jr., sr.; prereq.§) (<i>Not offered</i>)				
-71w	Modern Poetry (Leopardi, Carducci) (3 cred.; jr., sr.; prereq.§)	II	MWF	302F	Miss Nissen
72f	Modern Drama (Giacosa, Bracco, Pirandello) (3 cred.; jr., sr.; prereq.§)	II	MWF	302F	Miss Nissen
73	<i>Boccaccio</i> (3 cred.; jr., sr.; prereq.§) (<i>Not offered</i>)				
74s	Petrarch (3 cred.; jr., sr.; prereq.§)	II	MWF	302F	Miss Nissen
159-160	<i>Dante</i> (6 cred.; jr., sr., grad.; prereq. one course above 50) (<i>Not offered</i>)				

* 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.

‡ 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.

§ Credit will not be given for both Course 1 and Course 5.

No.	Title	Hour	Day	Bldg.	Instructor
161f-162w	The Sixteenth Century (6 cred.; jr., sr., grad.; prereq. one course above 50)	II	TTh	302F	Miss Nissen
		and 1 hr. ar.			
164§	<i>Dante in English</i> (3 cred.; jr., sr., grad.; prereq. consent of instructor) (<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
3s	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
1af-2aw*	Beginning Spanish—Conversational Section (10 cred.; no prereq.)	VII	MTWThF	205F	Ar
	Demonstration	VII	MTWThF	205F	Ar
	Plus Laboratory Drill Sec. 1	VI	MTWThF	203F	Ar
	2	VIII	MTWThF	205F	
	3	VIII	MTWThF	206F	
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	206F	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
3as*	Intermediate Spanish—Conversational Section (5 cred.; prereq. 1af-2aw)	VII	MTWThF	205F	Ar
	Demonstration	VII	MTWThF	205F	Ar
	Plus Laboratory Drill Sec. 1	VI	MTWThF	203F	Ar
	2	VIII	MTWThF	205F	
	3	VIII	MTWThF	206F	
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
4af*	Intermediate Spanish—Conversational Section (2nd qtr. of 3a-4a; prereq. 3a)	VII	MTWThF	124F	Ar
	Demonstration	VII	MTWThF	124F	Ar
	Plus Laboratory Drill Sec. 1	VI	MTWThF	10F	Ar
	2	VIII	MTWThF	10F	

* The conversational method will be used in these sections. Substantially less home study will be required than in the standard sections. Registration in Spanish 1af-2aw-3as and 4af is limited. Written permission must be obtained from Professor Sirich in Room 200 Folwell Hall or, during registration week in the fall, in Room 103 Folwell Hall.

§ No knowledge of Italian is required for this course.

No.	Title	Hour	Day	Bldg.	Instructor
20w	Oral and Written Spanish (5 cred.; prereq. 4 or four years of high school Spanish)	III	MTWThF	201F	Ar
20s	Oral and Written Spanish (See 20f)	III	MTWThF	125F	Ar
30s	Commercial Spanish (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 17.

50w	Spanish Pronunciation (3 cred.; jr., sr.; prereq. 4)	II	TThS	227F	Ar
51s	Advanced Spanish Pronunciation and Diction (3 cred.; jr., sr.; prereq. 50)	II	TThS	227F	Mr. Le Fort
52w	Spanish Pronunciation and Diction (Open only to candidates for the Spanish play; open to others with permission of instructor) (2 cred.; jr., sr.; prereq. 3-4)	Ar	Ar	Ar	Ar
53f-54w-55s	Spanish Composition and Conversation (9 cred.; jr., sr.; prereq. 3-4)	II	TThS	206F	Ar
60f	Advanced Spanish Composition (3 cred.; jr., sr.; prereq. 53 or 20 with grade of B)	III	TThS	201F	Ar
61w-62s	Advanced Spanish Conversation (6 cred.; jr., sr.; prereq. 54-55 or 20 with grade of B)	IV	MWF	108F	Mr. Le Fort
65f-66w-67s	Survey of Spanish Literature (9 cred.; jr., sr.; prereq. 3-4)	IV	MWF	108F	Mr. Le Fort
68w-69s	Survey of Spanish Literature (10 cred.; jr., sr.; prereq. 3-4)	VI	MWF	202F	Mr. Pattison
70f-71w-72s	Latin-American Culture (9 cred.; jr., sr.; prereq. 4 with grade of B or permission of instructor)	VI	MTWThF	201F	Mr. Grismer
74f-75w-76s	Survey of Spanish-American Literature: Contemporary Prose and Poetry (9 cred.; jr., sr.; prereq. 3-4)	III	MWF	203F	Mr. Le Fort
103f-104w-105s	Spanish Syntax and Composition (3 cred.; jr., sr., grad.; prereq. 60 or registration in 60)	II	MWF	304F	Mr. Le Fort
110-111-112	Spanish Literature: 19th Century (9 cred.; jr., sr., grad.; prereq.*) (Not offered)	Ar	Ar	Ar	Mr. Pattison
115-116-117	Spanish Literature: 17th Century (9 cred.; jr., sr., grad.; prereq.*) (Not offered)				
120	The Ballad (3 cred.; jr., sr., grad.; prereq.*) (Not offered)				
130s	Cervantes: Don Quijote (3 cred.; jr., sr., grad.; prereq.*)	V	MWF	203F	Mr. Grismer
131	The Picaresque Novel (3 cred.; jr., sr., grad.; prereq.*) (Not offered)				
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. Le Fort
155f-156w-157s	Spanish Literature: 16th Century (9 cred.; jr., sr., grad.; prereq.*)	VII	MWF	203F	Mr. Grismer
171f-172w-173s	History of the Spanish Language (3 cred.; jr., sr., grad.; prereq. 4 and 1 yr. of Latin or permission of instructor)	IV	T	203F	Mr. Grismer
174f-175w-176s	Contemporary Spanish Literature (9 cred.; jr., sr., grad.; prereq.*)	IV	MWF	316F	Mr. Pattison

Seminars

241f-242w-243s	Old Spanish Philology (6 cred.)	VIII, IX	F	203F	Mr. Grismer
244-245-246	Readings in Old Spanish Literature (6 cred.) (Not offered)				

* 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
250f-251w-252s	Spanish Seminar. The Works of Galdós (6 cred.)	VIII, IX	W	203F	Mr. Pattison
253f-254w-255s	Seminar in Spanish-American Literature (6 cred.)	Ar	Ar	Ar	Ar

RUSSIAN

1f-2w	Beginning Russian (10 cred.; no prereq.)	VI	MTWThF	206F	Ar
3s	Intermediate Russian (5 cred.; prereq. 1-2)	VI	MTWThF	206F	Ar
4f-5w-6s	Advanced Russian (9 cred.; prereq. 3)	VII	T	304F	Ar
		VII, VIII	Th		
101f-102w-103s¶	Survey of Russian Literature (9 cred.; jr., sr., grad.; prereq. 8 cred. in literature)	VII	MWF	304F	Mr. Reichardt

SCANDINAVIAN

Junior College Courses

1f-2w	Beginning Norwegian (10 cred.; no prereq.)	VI	MTWThF	12F	Mr. Olson
3s	Intermediate Norwegian (5 cred.; prereq. 1-2 or equiv.)	VI	MTWThF	12F	Mr. Olson
4f-5w-6s	Advanced Norwegian (9 cred.; prereq. 1-2-3 or equiv.)	VII	MWF	12F	Mr. Olson
7f-8w	Beginning Swedish (10 cred.; no prereq.)	II	MTWThF	12F	Mrs. Lorenzen
9s	Intermediate Swedish (5 cred.; prereq. 7-8 or equiv.)	II	MTWThF	12F	Mrs. Lorenzen
10f-11w-12s	Advanced Swedish (9 cred.; prereq. 7-8-9 or equiv.)	III	MWF	12F	Mrs. Lorenzen
22w§	Scandinavian Life Today and Yesterday (3 cred.; no prereq.)	Ar	Ar	12F	Mr. Olson, Mrs. Lorenzen

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 17.

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>)				
113-114-115	<i>Gothic and Old High German</i> (9 cred.; sr. with completed major sequence, grad.) (The same as German 113-114-115) (<i>Not offered</i>)				
	113 <i>Gothic—Introduction to Germanic Linguistics</i> (4 cred.)				
	114 <i>Gothic texts</i> (2 cred.)				
	115 <i>Old High German</i> (3 cred.)				
153	<i>The Modern Scandinavian Home As an Expression of Northern Art</i> (The same as Art Ed. 153) (3 cred.; jr., sr., grad.) (<i>Not offered</i>)				
161§	<i>The Modern Scandinavian Novel</i> (3 cred.; jr., sr., grad.; prereq. 4-5-6 or 10-11-12 or 8 cred. in literature) (<i>Not offered</i>)				
171s§	<i>The Modern Scandinavian Drama</i> (3 cred.; jr., sr., grad.; prereq. 4-5-6 or 10-11-12 or 8 cred. in literature)	Ar	Ar	317F	Mr. Reichardt
183§	<i>Germanic Heroic Poetry</i> (The same as German 183) (3 cred.; sr., grad.; prereq. 8 cred. in literature) (<i>Not offered</i>)				

§ No knowledge of Scandinavian languages is required.

¶ No knowledge of Russian language is required.

No.	Title	Hour	Day	Bldg.	Instructor
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) (Not offered)				
195	<i>Introduction to Old Norse Language and Literature</i> —Old Norse Phonology and Morphology—Survey of Old Icelandic history and literature (The same as German 195) (4 cred.; sr., grad.; prereq. 113) (Not offered)				

For Graduate Students Only

215-216-217	<i>Studies in Scandinavian Romanticism</i> (Not offered)				
218-219-220	<i>Studies in Late Nineteenth-Century Scandinavian Literature</i> (Not offered)				
221-222-223	<i>Biographical Problems in Strindberg</i> (Not offered)				
230f-231w-232s	Seminar: Germanic Languages and Literature (The same as German 218-219-220) (9 cred.; grad.; prereq. at least two Germanic dialects)				
	a. <i>Problems in Middle High German Literature</i> (Not offered)				
	b. <i>Texts in Germanic Dialects</i> . Their linguistic, literary, and cultural background (Not offered)				
	c. Old High German—Linguistic interpretation of texts				
		Ar	Ar	Ar	Ar

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

See General Studies, page 63.

SOCIOLOGY AND SOCIAL WORK

Major advisers in the College of Science, Literature, and the Arts—Professors Chapin, Kirkpatrick, Nelson, Vold, and Monachesi; Associate Professors Fenlason, Shea, Sletto, Vaile, and Clendening; Assistant Professors Doyle and Green.

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

Group I—General Sociology Sequences—

Sequence A. Sociological principles. Courses 100, 101, 103, 120, 140, 145 and 10 additional credits elected from other courses numbered 100 and above.

Sequence B. Sociological Orientation to the Modern World. Courses 50 or 51, 53, 100, 101, 119, 120 and 10 additional credits elected from other courses numbered 100 and above.

Group II—Sequences with Vocational Emphasis—

Sequence C. Criminology and Penology. Courses as follows: 50 or 51, 53, 102, 105, 106 or 107, 132 and 10 additional credits.

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, 101, 114; three Senior College courses in Sociology numbered 100 or above in addition to those specifically required; Economics 82, 83 (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.

* 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.

(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 Community Recreation
- 141E Administration and Supervision of Public Recreation
- 142E Group Leadership and Community Organization for Recreation

Physical Education for Women

- 54 Camp Leadership
- 60 Principles of Play
- 63 Technique of Teaching Folk Dancing
- 80 Principles of Rhythm

Sequence E. Social Administration, with emphasis on leadership and planning. Courses 50 or 51, 53, 91, 101, 104; one from 110, 114, 119; 160, 161, and 5 additional credits elected from other courses numbered 100 or above.

Sequence F. Social Research. Courses 112, 122 or equivalent, 123, 141, 162-163-164, and 13 additional credits elected from other courses numbered 100 or above.

(Prerequisites: For Sequences A, B, C, E, and F, Soc. 1 and 45, and a total of 15 credits from courses in sociology, anthropology, education, history, philosophy, political science, psychology, and zoology.)

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.

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,s	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	2J	and others
	2	II	MW	2J	
	3	IV	MW	209EdH	
	4	VI	MW	109J	
	5	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	102Hr(UF)(f), 113SnH(UF)(w)	Mr. Schneider
1s	Introduction to Sociology (For students of the College of Agriculture, Forestry, and Home Economics only) (3 cred.; no prereq.)				
		I	TThS	240OD(UF)	Mr. Schneider
2f,w,s	Individual and Minority 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	14P	
	2	II	TTh	209EdH	
	3	IV	MW	218P	
	4	VI	TTh	109J	
14w,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	
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)				
		II	MWF	2P	Mr. Vold
48s	Social Control and Criminal Behavior (See 48f)				
		III	TThS	2P	Mr. Vold
49f	Social Problems (3 cred.; prereq. 1)				
		I	MWF	JAud	Mr. Sletto

No.	Title	Hour	Day	Bldg.	Instructor
49w	Social Problems (See 49f)	II	MWF	JAud	Mr. Sletto
49s	Social Problems (See 49f)	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 17.

50f-51w	Areas of Social Work (5 cred. each qtr. for Sequence D students; 4 cred. other students; jr., sr.; prereq. 49, 50, or 51)	III VII and 3 hrs. of observation for Sequence D students	TThS	2P	Social Work Staff
50w-51s	Areas of Social Work (See 50f-51w)	VI and 2 hrs. of observation for Sequence D students	TThS	2P	Social Work Staff

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
95	<i>Introduction to Public Welfare</i> —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>Not offered</i>)				
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 V	TS	104J	Mr. Kirkpatrick
101s	Social Organization (3 cred.; jr., sr., grad.; prereq. Sociology 1 and 15 cred. in social science, child welfare, education, philosophy, or psychology, or consent of instructor)	II	TThS	109J	Mr. Chapin
102s	Contemporary Penology (3 cred.; jr., sr., grad.; prereq. Sociology 1 and 15 cred. in social science, child welfare, education, philosophy, or psychology, or consent of instructor)	II	MWF	109J	M, Vold
103w	Sociology of Conflict (3 cred.; jr., sr., grad.; prereq. Sociology 1 and 15 cred. in social science, child welfare, education, philosophy, or psychology, or consent of instructor)	II	MWF	104J	Mr. Vold

No.	Title	Hour	Day	Bldg.	Instructor
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 123) (3 cred.; jr., sr., grad.; no prereq.)	III	MWF	320E	Mr. Jones, Mr. Anderson, Mr. Filipetti, Mr. Vaile, Mr. Sletto
105f	Criminological Theories—Historical and contemporary (3 cred.; jr., sr., grad.; prereq. Sociology 1 and 15 cred. in social science, child welfare, education, philosophy, or psychology, or consent of instructor)	II	TThS	109J	Mr. Vold
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. Sociology 1 and 15 cred. in social science, child welfare, education, philosophy, or psychology, 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. Sociology 1 and 15 cred. in social science, child welfare, education, philosophy, or psychology, or consent of instructor) (<i>Not offered</i>)				
110f	Rural Community Organization (3 cred.; jr., sr., grad.; prereq. Sociology 1 and 15 cred. in social science, child welfare, education, philosophy, or psychology, or consent of instructor)	I	MWF	109J	Mr. Nelson
112f	Problems in Rural Social Research (2 cred.; sr., grad.; prereq. Sociology 1 and 15 cred. in social science, child welfare, education, philosophy, or psychology, or consent of instructor)	VIII-IX	M	2J	Mr. Nelson
114w	Rural Social Institutions (3 cred.; jr., sr., grad.; prereq. Sociology 1 and 15 cred. in social science, child welfare, education, philosophy, or psychology, or consent of instructor)	I	TThS	109J	Mr. Nelson
115	<i>Religion As a Social Institution</i> (3 cred.; jr., sr., grad.; prereq. Sociology 1 and 15 cred. in social science, child welfare, education, philosophy, or psychology, or consent of instructor) (<i>Not offered</i>)				
116	<i>The Newspaper As a Social Institution</i> (3 cred.; jr., sr., grad.; prereq. Sociology 1 and 15 cred. in social science, child welfare, education, philosophy, or psychology, or consent of instructor) (<i>Not offered</i>)				
119w	The Family —With special reference to contemporary marriage problems (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
119s	The Family—With special reference to contemporary marriage problems (See 119w)	V	Th		
120f	Social Life and Cultural Change—The theory of cultural lag. The idea of progress. The genesis of the unilinear conception of change and its implications for sociological theory (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	109J	Mr. Kirkpatrick
122f	Statistical Methods (3 cred.; grad.*; prereq. Sociology 1 and 15 cred. in social science, child welfare, education, philosophy, or psychology, or consent of instructor)	V	Th		
123s	Methods of Social Research (3 cred.; jr., sr., grad.; prereq. Soc. 45 or equiv.)	II	MWF	109J	Mr. Schneider
132f	Juvenile Courts and Probation (3 cred.; jr., sr., grad.; prereq. 53)	II	TThS	104J	Mr. Chapin
		II	TThS	218P	Mr. Sletto
		III	TThS	104J	Mr. Monachesi

* For graduate students only, except by petition.

No.	Title	Hour	Day	Bldg.	Instructor
140w	Theories of Social Order—A survey of the leading theories of social organization in the European tradition, including the theory of hierarchy of estates and the doctrine of harmony of interests; the theory of the contract of society and equilibrium of interests; and the realist or conflict theory. Christianity and social order (3 cred.; jr., sr., grad.; prereq. Sociology 1 and 15 cred. in social science, child welfare, education, philosophy, or psychology, or consent of instructor)	I	MWF	109J	Mr. Schneider
141w	Problems in Social Measurement (3 cred.; jr., sr., grad.; prereq. 45 or 122 or equiv.)	III	MWF	104J	Mr. Sletto
145s	Theories of Social Reconstruction—American reformers and reform movements from the 1830's to the present. Societies of cooperation and religious communisms in the United States. The muckrakers. The effects of war behavior on social reconstruction and reform movements. (3 cred.; jr., sr., grad.; prereq. Sociology 1 and 15 cred. in social science, child welfare, education, philosophy, or psychology, or consent of instructor)	III	TThS	200Pt	Mr. Schneider
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>)				
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>)				
160f	Population Problems (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	MWF	109J	Mr. Nelson
161w	Social Aspects of Housing and Standards of Living (3 cred.; sr., grad.; prereq. Sociology 1 and 15 cred. in social science, child welfare, education, philosophy, or psychology, or consent of instructor)	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. Sociology 1 and 15 cred. in social science, child welfare, education, philosophy, or psychology, or consent of instructor)	I	TThS	2J	Mrs. Doyle
122f	Statistical Methods (3 cred.; grad.*; prereq. Sociology 1 and 15 cred. in social science, child welfare, education, philosophy, or psychology, or consent of instructor) (The same as Soc. 122)	II	TThS	104J	Mr. Chapin
124f,s	Community Organizations (3 cred.; grad.*; prereq. 109 or equiv.)	I	TThS	109J	Ar
125f	Principles of Group Work (3 cred.; grad.*; prereq. 109, which may be taken simultaneously, or equiv.)	IV	TS	2J	Ar
		VI	Th	2J	
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	TThS	2J	Mr. Bachelder
128s	Principles of Administration, Publicity, and Finance Applied to Social Work (2 cred.; grad.*; prereq. Sociology 1 and 15 cred. in social science, child welfare, education, philosophy, or psychology, or consent of instructor—Social Work 109 or equiv. must be included)				

VII, VIII

T 109J

* 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
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	TS	2J	Miss Vaile
		VIII	Th	2J	
132s	Juvenile Courts and Probation (3 cred.; jr., sr., grad.; prereq. 53) (The same as Soc. 132)				
		III	TThS	104J	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 50-51) (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	104J	Miss Green
138s	Case Work with Children (See 138f)				
		III	TThS	14P	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	T	2J	Miss Green
		VI	Th		
151f-152w	Public Welfare (6 cred.; jr., sr., grad.; prereq. 109 or equiv. Course 152 is open to graduate students only)	IV	TS	109J	Miss Vaile
		VII	Th		
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
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 (3 cred.; sr., grad.; prereq. Sociology 1 and 15 cred. in social science, child welfare, education, philosophy, or psychology, or consent of instructor) (The same as Soc. 161)	II	TThS	109J	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

* 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
172s	Advanced Considerations in Psychiatry (The same as Medicine 172) (1 cred.; grad.*; prereq. 171 or equiv.)	IV	T	Ar	Ar
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

200	<i>Seminar: Topics in Criminology (Not offered)</i>				
201f,w,s	Seminar: Social Psychology of Family Relationships				Mr. Kirkpatrick
202	<i>Seminar: Topics in Urban Sociology (Not offered)</i>				
203-204-205	<i>Seminar in Social Theory (Not offered)</i>				
206f-207w-208s	Seminar: Statistical Theory in Relation to Social Theory and Practice				Mr. Chapin
209-210-211	<i>Seminar: The Theory of Social Evolution (Not offered)</i>				
215	<i>Seminar in Rural Sociology: Rural Life in Latin America (Not offered)</i>				
216	<i>Seminar in Rural Sociology: Rural Life in Selected Countries of Europe (Not offered)</i>				
217	<i>Seminar in Rural Sociology: Current Rural Social Problems in the United States (Not offered)</i>				
234f,w,s	Seminar in Juvenile Delinquency and Treatment				Mr. Monachesi
238f-239w†	Principles of Sociology (6 cred.)				Mr. Monachesi

COURSES IN SOCIAL WORK

218f-w-s	Seminar in Family Case Work				Mrs. Fealason
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
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.

* 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.

SPEECH

Major advisers in the College of Science, Literature, and the Arts—Professors Rarig and Bryngelson; Associate Professor Gilkinson; Assistant Professor Whiting.

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 and Bryngelson; Associate Professor Gilkinson; Assistant Professor Whiting.

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, Speech Pathology, or Radio.

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 schools 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 Intercollegiate 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. Half-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.* Eng. A-B-C 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.* Eng. A-B-C or exemption)			Eng. A-B-C	or Comp. 4-5-6
	Sec. 1	III	MTWThF	6F	
	2	IV	MTWFS	206F	
	3	VI	MTWThF	311F	
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	105F	
	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
34f††	Stagecraft—Construction and Painting (3 cred.; soph., jr., sr.; prereq. 31)				
	Lect.	II	Th	Stage Mu	Mr. Andrus
	Lab.	I-II	TS		

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 17.

51s†	Advanced Public Speaking (3 cred.; jr., sr.; prereq. 1-2-3 or 5-6)				
		II	MWF	308F	Ar
55-56-57††§	Argumentation and Debating (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	305F	Mr. Bryngelson

* 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.

No.	Title	Hour	Day	Bldg.	Instructor
65ff	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)				
		III	MWF	302MurH	Mr. Ziebarth
65st	Radio Speech (See 65f)	II	TThS	302MurH	Mr. Ziebarth
66w††	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	302MurH	Mr. Dusenbury
67st††	Phonetics (3 cred.; jr., sr.; prereq. 1-2-3 or 5-6)	I	MWF	306F	Mr. Dusenbury
78w-79st††	Advanced Acting—Characterization and Dialect (6 cred.; jr., sr.; prereq. 31, 32-33)	III	MWF	19Mu	Mr. Whiting, Mr. Dusenbury
81f-82w-83st	Interpretative Reading (9 cred.; jr., sr.; prereq. 1-2-3 or 5-6)	IV	MWF	308F	Mr. Rarig
81w-82st	Interpretative Reading (See 81f-82w-83s)	I	TThS	308F	Mr. Rarig
83ft	Interpretative Reading (3rd qtr. of 81-82-83. See 81f-82w-83s)	I	TThS	308F	Mr. Rarig
91wt††	Stage Design (3 cred.; jr., sr.; prereq. 31)				
	Lect.	III	Th	19Mu	Ar
	Lab.	III, IV	TS		
92st††	Stage Lighting (3 cred.; jr., sr.; prereq. 31)				
	Lect.	III	Th	19Mu	Ar
	Lab.	III, IV	TS		
93ft††	Stage Costuming (3 cred.; jr., sr.; prereq. 31)				
	Lect.	III	Th	19Mu	Ar
	Lab.	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
105*	<i>Theory of Reading and Acting</i> (3 cred.; jr., sr., grad.; prereq. 1-2-3 or 5-6, 81-82-83, and Psy. 1-2) (<i>Not offered</i>)				
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>)				
109s*	Classical Rhetoric (3 cred.; jr., sr., grad.; prereq. 101-102-103, Psy. 140)	III	TThS	308F	Mr. Rarig
111f-112w-113st††	Stage Direction (9 cred.; sr., grad.; prereq. 31, 32, 34, 91-92-93)	VII	MWF	18Mu	Mr. Whiting
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)	II	MWF	311F	Mr. Dusenbury
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>)				
141f-142w-143s	Voice Science (9 cred.; jr., sr., grad.; prereq. 1-2-3 or 5-6, 67; Psy. 1-2 and 4-5)	VII	MWF	406F	Mrs. Huber

* Courses 105 and 109 are offered in alternate years.

† 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.

No.	Title	Hour	Day	Bldg.	Instructor
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 in Speech Pathology and Lip Reading (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
171-172-173*	<i>History of the Theater</i> (9 cred.; sr., grad.; prereq. 1-2-3 or 5-6; 31) (<i>Not offered</i>)				
174f-175w-176s*	Theater Backgrounds (9 cred.; sr., grad.; prereq. 1-2-3 or 5-6; 31. Courses in literature recommended)	III	TThS	10Mu	Mr. Whiting
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. Bryngelson, Mr. Gilkinson, Mr. Whiting
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>)				

For Graduate Students Only

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	Ar
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
261f-262w-263s	Seminar in Speech Pathology	Ar	Ar Ar		Mr. Bryngelson, Mr. Brown
291f-292w-293s	Research in Special Problems	Ar	Ar Ar		Mr. Rarig, Mr. Bryngelson, Mr. Gilkinson, Mr. Whiting

SWEDISH

See Scandinavian, page 104.

VOCATIONAL ORIENTATION

See General Studies, page 50.

* 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.

¶ Students intending to take Speech Pathology should take Phonetics the preceding spring.

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
	4	(Limited to 174)	III, IV	TS	101Z	Ar
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

* 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.

No.	Title	Hour	Day	Bldg.	Instructor
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
	Lab. Sec. 1**	I, II	TThS	201Z	Miss Slider
	2	VI, VII, VIII	TTh	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	
	2	VI, VII, VIII	MW	3SZ	
46w-47s†	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 17.

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	
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
81s†	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
107w†-108s†	Protozoology (6 cred.; jr., sr., grad.; prereq. 15 cred.)				
	Lect. and lab.	VI, VII, VIII	TTh	208Z	Mr. Osterud

† 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 is charged for this course.

§ Not open to regular three-year premedical and pre dental students.

¶ All zoology majors should register for Section 1.

No.	Title	Hour	Day	Bldg.	Instructor
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)	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)	Ar	Ar	3Z	Ar
117f†-118w- 119s†¶	Animal Ecology (9 cred.; jr., sr., grad.; prereq. 15 cred.) Lect. Lab.	VI VII, VIII	TTh	211Z(f,s) 3SZ(f,s)	Mr. Eddy Mr. Hodson
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. Lab.	VIII, IX Ar	F Ar	211Z Ar	Mr. Eddy
125f†-126w†- 127s†	Advanced Entomology (9 cred.; jr., sr., grad.; prereq. 15 cred.) Lect. Lab.	I I, II, III	TTh S	211Z 402Z	Mr. Mickel
132	General Physiology of Development (3 cred.; jr., sr., grad.; prereq. 50 and 180 or consent of instructor) (<i>Not offered</i>)				
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†	<i>Animal Parasites and Parasitism</i> (6 or 9 cred.; jr., sr., grad.; prereq. 15 cred.) (<i>Not offered</i>)				
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	<i>Physiology in Relation to Physics</i> (3 cred.; jr., sr., grad.; prereq. 15 cred. in biol. sci. and consent of instructor. Physics recommended) (<i>Not offered</i>)				
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
170f†-171w†	Advanced Genetics (6 cred.; jr., sr., grad.; prereq. 15 cred. including Course 83, or consent of instructor) Lect. and lab.	VI, VII, VIII	MW	209Z	Mr. Oliver
180f†	Comparative Embryology (3 cred.; jr., sr., grad.; prereq. 15 cred. including Course 21 or equiv.) Lect. and lab.	III, IV	MWF	313Z	Mr. Ringoen
181w	Endocrines and Reproduction (3 cred.; jr., sr., grad.; prereq. 15 cred. including Course 21 or equiv.) Lect.	III	MWF	313Z	Mr. Ringoen
182s	Experimental Embryology (3 cred.; jr., sr., grad.; prereq. 15 cred. including Course 21 or equiv.) 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.

* Note that in the winter quarter this course is offered at the University Farm.

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

¶ Either 119s or 120s or both may be taken to complete Course 117f-118w.

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 combination 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. Clifford P. Archer 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
Ed.51Af††	Introduction to Secondary School Teaching (See 51C-A-B)				
	Sec. 1	I	MWF	100Pt	Mr. Miller
	2	III	TThS	210Bu	Mr. Van Wagenen

† 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.51As††	Introduction to Secondary School Teaching (See 51C-A-B)	Sec. 1	I	MWF 100Pt	Mr. Miller
		2	III	TThS 210Bu	Mr. Van Wagenen
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.61Cf-61Aw-61Bs††	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	100Ph and Dem. Sch.	Mr. Archer (f,w) Mr. Brueckner(s)
Ed.61Cs††	Introduction to Elementary School Teaching (3 cred.; jr., sr.; no prereq.) (Fall, for juniors; spring, for seniors)	VII(s)	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.150	<i>Education for Postwar Reconstruction</i> (2 cred.; sr., grad.; no prereq.) (<i>Not offered</i>)				
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. Field
		Spring	Ar	Ar	301Hr	Mr. Field
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.				
Agr.Ed.56	<i>Rural Youth Leadership</i> (3 cred.; jr., sr. or permission of instructor; no prereq.) (<i>Not offered 1945-46</i>)					
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

† 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.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	<i>Enterprise Analysis</i> (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
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 (3 to 9 cred.; grad.; prereq. 15 cred. in ed.)	Ar	Ar	Ar	Mr. Field, Mr. Ekstrom
Agr.Ed.286	<i>Current Problems in Agricultural Education</i> (2 to 3 cred.; prereq. consent of instructor) (<i>Offered in Summer Session. Not offered in 1945-46</i>)				

ART EDUCATION

Major advisers—Professor Ruth Raymond; Assistant Professor Marie Lien.

Note—The following courses meet requirements for certification in art teaching. For their use toward various destinations in professional art see under Fine Arts; and for their use in social work see under Sociology and Social Work.

GROUP A—DESIGN

“Design” is an integral part of all Art Education courses, even theory courses stress art in relation to general designs for living. It is especially emphasized in connection with solving practical art problems in the following courses.

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
ArtEd.1f-2w-3s	Fundamental Experiences in Design (9 cred.; prereq. high school art, or G.C. 22A-B-C, or ArtEd. 14-15-16, or permission)				
	Sec. 1 (Primarily for art education majors, others by permission)	I-II	MWF	207bJ	Miss Lien
	2 (For commercial art specialization)	I-II	MWF	301WeH	Miss Stoick
	3 ((For recreational leaders and for rehabilitation) (<i>Not offered</i>) (See ArtEd. 20-21-22)				
ArtEd.14-15-16	Introduction to Art Education (See Group D)				
ArtEd.17f-18w-19s	Art for Elementary School Teachers (17 stresses drawing, 18 design, 19 appreciation and projects) (9 cred.; for those preparing to teach in preschool and in elementary grades; no prereq.)				
	Lect.	IV	T	200J	Mr. Gayne
	Lab. Sec. 1	I-II	TTh	203J	Mr. Gayne
	2	VI-VII	MW	203J	Mr. Gayne

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

No.	Title	Hour	Day	Bldg.	Instructor
ArtEd.20f-21w-22s	Fundamental Experiences in Design. Emphasis upon color and its use in handcrafts. May be taken advantageously with ArtEd. 31-32 (See Group B) (3 cred. each qtr.; prereq. ArtEd. 1-2-3 or permission)	II	MWF	203J	Miss Berglund
	Lect. and dem.		MWF	203J	Miss Berglund
	Lab.	I or IV	MWF	203J	Miss Berglund
<i>Senior College and Graduate Courses</i>					
ArtEd.54f-55w-56s	Fundamental Experiences in Art (9 cred.; prereq. ArtEd. 1-2-3 or ArtEd. 14-15-16 and 6 cred. in F.A. 1-2-3)	Ar	Ar	Ar	Ar
ArtEd.150f-151w	Understanding Contemporary Design (6 cred.; jr., sr., grad.; prereq. permission of instructor)	IX-X and ar.	T	207bJ	Miss Lien
ArtEd.153-154-155	Art and Society (3 cred. each; jr., sr., grad.; prereq. permission of instructor)				
ArtEd.153	<i>The Modern Scandinavian Home as an Expression of Northern Art (Not offered)</i>				
ArtEd.154f,w,s	Development of Personality and its Expression in Costume. Offered tutorially, consult Miss Raymond				
ArtEd.155f,w,s	Painting	Ar	Ar	Ar	Ar
ArtEd.156	<i>Intercultural Education through Art</i> (3 cred.; jr., sr., grad.) (Not offered. See H.Ed. 110, Intercultural Education)				

GROUP B—HANDCRAFTS

Courses giving acquaintance with processes and materials and skills necessary in programs for Rehabilitation and Recreation in Occupational Therapy and group activities in Social Work.

At the Junior College level orientation with regard to a variety of crafts is offered. (See Art Ed. 20-21-22 for appropriate accompanying experience in design.)

At the senior college level each art major should choose one or two materials with which he should acquire expert skill and with whose implications in terms of both handcraft and contemporary industry he should be familiar. For example, he should explore the possibilities of the use of ceramics, wood, and textiles in personalizing quantity-produced housing.

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.

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor
ArtEd.31f,w,s, 32f,w,s	Orientation in Handcraft Processes (3 cred. a qtr.; prereq. or coincident, some experience in design)				
	Sec. 1 (31f,32w) Experiences including paper-craft, leather work, knotting, knitting, needle work, simple weaving, and other textile design				
	Lect. and dem.	III	MWF	203J	Miss Berglund
	Lab.	IV	MWF	203J	Miss Berglund
	2 (32f,31w,32s) Clay, wood, and metal crafts				
	Lect. and dem.	II	TThS	11J	Mr. Rood
	Lab.	Ar	TThS	10J	Mr. Rood

Senior College Courses

ArtEd.70f,w,s, 71f,w,s, 72f,w,s‡	Wood Sculpture and Carving (3 cred. a qtr.; prereq. permission of instructor)				
	Lect. and dem.	I	TThS	10J	Mr. Rood
	Lab. ar. in	II-III	TThS	10J	Mr. Rood

‡ A fee of \$1.50 per quarter is charged for this course.

COLLEGE OF EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
ArtEd.73f,w,†	Ceramic Materials and Processes (3 cred.; prereq. ArtEd. 1-2-3 or 20-21-22, or permission)				
	Lect. and dem.	IV	TS	10J	Mr. Rood
	Lab.	VI-VII	TTh	10J	Mr. Rood
ArtEd.74w,s,‡	Ceramic Processes (3 cred.; prereq. ArtEd. 1-2-3, or 20-21-22 or permission)				
	Lect. and dem.	IV	TS	10J	Mr. Rood
	Lab.	VI-VII	TTh	10J	Mr. Rood
ArtEd.75s,‡	Ceramic Processes (3 cred. prereq. ArtEd. 1-2-3, or 20-21-22 or permission)				
	Lect. and dem.	IV	TS	10J	Mr. Rood
	Lab.	VI-VII	TTh	10J	Mr. Rood
ArtEd.75B,‡	<i>Bookbinding Processes (3 cred.) (Not offered) (See ArtEd. 31-32 Sec. 2)</i>				
ArtEd.75M,‡	<i>Metal Work (3 cred.) (Not offered) (See ArtEd. 31-32 Sec. 1)</i>				
ArtEd.76f,‡	Textile Materials and Processes (3 cred.; prereq. permission of instructor)				
	Lect. and dem.	VI	MWF	11J	Miss Berglund
	Lab.	VII-VIII	MWF	11J	Miss Berglund
ArtEd.77w,‡	Textile Processes, Weaving (3 cred.; prereq. permission of instructor)				
	Lect. and dem.	VI	MWF	11J	Miss Berglund
	Lab.	VII-VIII	MWF		
ArtEd.78s,‡	Textile Processes (3 cred.; prereq. permission of instructor)				
	Sec. 1 Printing Processes				
	Lect. and dem.	III	MWF	203J	Miss Berglund
	Lab. ar.				
	2 Advanced Weaving				
		Ar	Ar	11J	Miss Berglund
ArtEd.81A-81B,‡	Techniques of Puppetry (4 cred.)				
		Ar	Ar	Ar	Ar

GROUP C—REPRESENTATION—STUDIO PRACTICE

Sufficient studio practice to bring some proficiency in art production may be acquired by progression through various sequences, including for graduate work selection of this field for "Special Problems" under Art Ed. 295. A minimum of 15 credits is required for the B.S. degree.

These courses offer creative experience and practical acquaintance with the technical processes used in the various professional arts.

Junior College Courses

No.	Title	Hour	Day	Bldg.	Instructor	
ArtEd.4f,w,s,6f,w,s, 8f,w,s	Basic Drawing (2 cred. each qtr.)					
	Sec. 1 Lect. and dem.					
		III		F	207J	Miss Lutz
	Lab. ar. in					
		IV		F		Miss Stoick
	and					
	III-IV					
				W		Miss Fisher
	2 Lect. and dem.					
		IV		W		Miss Lutz
	Lab. ar. in					
	III or V		W		Miss Lutz	
and						
IV-V						
			F			
3 Lect. and dem.						
	VII		W		Miss Lutz	
Lab. ar. in						
	VIII		W			
and						
	VII-VIII		F		Miss Lutz	

‡ 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	Specialized Drawing and Painting (2 cred. each qtr.)				
	Sec. 1 Painting in water-color or gouache				
	Lect. and dem.	II	T	207J	Miss Lutz
	Lab.	I	T		
			and		
		I-II	Th		Miss Lutz
			or		
	Lect. and dem.	II	S	207J	Miss Lutz
	Lab.	I and III-IV	S		Miss Lutz
	2 Illustration				
	Lect. and dem.	VI	T	207J	Miss Lutz
	Lab.	VII-VIII	T		Miss Stoick
	3 Beginning fashion illustration				
	Lect. and dem.	VII	M	301WeH	Miss Fisher
	Lab.	VIII-IX and ar.	M		Miss Stoick
	4 Fashion illustration advanced				
	Lect. and dem.	VII	W	301WeH	Miss Fisher
	Lab.	VIII-IX and ar.	W		Miss Stoick
<i>Senior College Courses</i>					
ArtEd.61f,w,s, 62f,w,	Advanced General Drawing and Painting				
	Sec. 1 Lect. and dem.	III	T	207J	Miss Lutz
	Lab.	IV or V	T		
			and		
		III or V	Th		
	2 Lect. and dem.	II	W	207J	Miss Lutz
	Lab.	I	W		Miss Lutz
			and		
		I-II	F		
ArtEd.66f,w,s, 67f,w,s,68f,w,s	Specialized Drawing and Painting				
	Sec. 1 Painting (oil) portrait				
	Lect. and dem.	I	S	207J	Miss Lutz
	Lab.	II-IV	S		Miss Lutz
	2 Illustration				
	Lect. and dem.	VI	Th	209J	Miss Lutz
	Lab.	VII-VIII and ar.	Th		Miss Stoick
	3 Printmaking				
	Lect. and dem.	Ar	Ar	Ar	Miss Stoick
	Lab.	Ar	Ar	209J	Miss Lutz
	4 Fashion illustration, advertising				
	Lect. and dem.	VII	W	301WeH	Miss Stoick
	Lab.	VIII-IX and ar.	W		Miss Fisher
ArtEd.124f,w,s, 125f,w,s	Specialized Drawing and Painting, continued, for Mural Composition, etc. (see also Group E 295)				
	Lect. and dem.	VII	Th	Ar	Miss Lutz
	Lab.	VI and ar	Th	Ar	Miss Stoick

GROUP D—APPRECIATION

See also Fine Arts, General College 22A-B-C, the lectures and projects for reading and research in ArtEd. 153-154-155 and ArtEd. 189.

ArtEd.14f-15w-16s Introduction to Art Education (9 cred.; no prereq.)
Ar Ar Ar Ar

COLLEGE OF EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
ArtEd.14Af-15Aw-16As	Laboratory for those without high school art	Ar		Ar Ar	Ar
ArtEd.17f-18w-19s	See Group A				
ArtEd.57f-58w	Art and Leisure; Participation, under guidance, in the cultural advantages of the Twin Cities	Ar		Ar Ar	Ar

GROUP E—PROFESSIONAL COURSES

ArtEd.84†	Methods of Teaching Art in the Elementary Grades—Instruction for Elementary Teachers (3 cred.; prereq. Ed. 61C-A-B or equiv.)	VII	TTh	203J	Mr. Gayne
		and 1 hr. ar.			
ArtEd.86f,87w,88s†††	Special Methods and Directed Teaching in Art (12 cred.; prereq. 51C-A-B) (Observation and directed teaching in public schools and University High School)	IV	T	203aJ	Miss Raymond, Mr. Laging
		and 9 hr. ar.			
ArtEd.156	<i>Intercultural Education through Art</i> (3 cred.; jr., sr., grad.) (<i>Not offered</i>) (See H.Ed. 110, Intercultural Education)				
ArtEd.183s	Philosophy of Art Education (3 cred.; sr., grad.)	IX	MWF	203aJ	Miss Raymond
ArtEd.185w†	Types of Art Instruction (Secondary School Methods) (3 cred.; sr., grad.)	IX-X	Th	203aJ	Miss Lien
	and ar.				
ArtEd.189w	Application of Esthetic Theory in Public Education (3 cred.; sr., grad.) Offered tutorially, consult Miss Raymond				
ArtEd.284f,w,s	Reading and Research in Art Education (Cred. ar.; 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.) (<i>Not offered</i>)				
Ed.C.I.104s†	Adult Education (2 cred.; jr., sr., grad.)	IX-X	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-108w†	Radio in Education (4 cred.; jr., sr., grad.; prereq. 9 cred. in ed.)	I-II	S	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

† 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 speech and psychological examinations and a C+ average (1.5 honor points) in the major or the subject in which teaching is done are prerequisite to this course.

No.	Title	Hour	Day	Bldg.	Instructor
Ed.C.I.114s†	The School Health Education Program (3 cred.; sr., grad.; prereq. Ed.T. 83, P.H. 50 or equiv.)	III-IV 1 hr. ar.	S	3NGW	Miss Starr
Ed.C.I.117s	Rural Education for Administrators and Teachers (3 cred.; sr. grad.; prereq. consult instructor)	I-II	S	109UHS	Mr. Archer
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, Miss Biester
Ed.C.I.145s†	Remedial Reading (3 cred.; prereq. Ed.C.I. 143 or 144 or 159)	I-II	S	100Pt	Mr. Brueckner
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 Lip-reading 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 and staff
Ed.C.I.207f,w,s*†	Problems in Radio Education (1 to 3 cred. per qtr.)	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 (Cfed. 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	100Pt	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

* 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 speech and 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.62Bf‡	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
Ed.C.I.65s‡	The Teaching of Science in the Elementary School (3 cred.; jr., sr.; prereq. Ed. 61A-B)	VI	MWF	100Pt	Ar
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	209EdH	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.173A‡	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.)	IX-X	M	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	W	209Bu	Mr. Brueckner, Mr. Cook

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

No.	Title	Hour	Day	Bldg.	Instructor
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.264w*†	Research in Educational Diagnosis (2 cred.; prereq. Ed.C.I. 151 or equiv.)		IX-X	W 115UHS	Mr. Brueckner

SECONDARY EDUCATION

Ed.C.I.113w†	High School Curriculum (3 cred.; sr., grad.; prereq. 10 hrs. in ed. including Ed. 51A-B-C)		I-II and 1 hr. ar.	S 209UHS	Mr. Bossing
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 209UHS	Mr. Bossing
Ed.C.I.173Bs†	Organizing Units of Instruction in the Secondary School (2 cred.; sr., grad.; prereq. 113 or consent of instructor)		III-IV	S Ar	Mr. Bossing
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	Mr. Donovan Johnson
Ed.C.I.198†	<i>Recent Literature in Methods and Curriculum in Secondary School English</i> (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	W 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

* 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

No.	Title	Hour	Day	Bldg.	Instructor
Ed.C.I.266s†	Supervision of High School Instruction (3 cred.)	I-II	S	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	F	106UHS	Mr. Johnson
		and 1 hr. ar.			
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)	S	206UHS	Miss Smith
		Ar(w)	Ar	206Bu	Miss Smith
		IX-X(s)	M	206UHS	Miss Smith

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, Mr. Cooper, Miss Eckert
Ed.C.I.250f†	Higher Education in the United States—Curriculum and instruction (3 cred.; prereq. 15 hrs. in ed.)	I-II	S	206UHS	Miss Eckert
		and 1 hr. ar.			
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	M	210Bu	Mr. Neale
		1 hr. ar.			
Ed.Ad.127f	Teachers and Employee Administration (3 cred.; sr., grad.; prereq. 124)	III-IV	S	109UHS	Mr. Neale
		and 1 hr. ar.			
Ed.Ad.210s*	Financial Aspects of Public School Business Administration (3 cred.; prereq. 124, 125)	I-II	S	110UHS	Mr. Neale
		1 hr. ar.			
Ed.Ad.226s	School Plant Planning and Management (3 cred.; sr., grad.; prereq. 124, 125)	IX-X	M	210Bu	Mr. Neale
		1 hr. ar.			
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	S	109UHS	Mr. Neale
		1 hr. ar.			
Ed.Ad.235f,w,s	Seminar in Educational Administration	Ar	Ar	224Bu	Mr. Neale

* 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.

ELEMENTARY EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
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

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
Ed.Ad.218f,w,s	Recent Literature in Secondary Education (Cred. ar.)	IX-X		W 209UHS	Mr. Boardman, Mr. Bossing
Ed.Ad.263f	The Organization of the Secondary School (3 cred.)	III-IV 1 hr. ar.		S 210UHS	Mr. Boardman
Ed.Ad.264w	The Administration of the Instructional Activities of the Secondary School (3 cred.)	III-IV 1 hr. ar.		S 210UHS	Mr. Boardman
Ed.Ad.265	<i>The Administration of the Non-Instructional Activities of the Secondary School (3 cred.) (Not offered in 1945-46. Offered alternate years)</i>				
Ed.Ad.270f,w,s*	Special Problems in Secondary Education (Cred. ar.; maximum 9 cred.)	Ar		Ar Ar	Mr. Boardman, Mr. Bossing

HIGHER EDUCATION

Ed.Ad.174s	The Junior College (3 cred.; sr., grad.; prereq. Ed.51A-B-C)	III-IV		S 210UHS	Mr. Boardman
Ed.Ad.253w	Administration in Higher Education (3 cred.; prereq. consent of instructor)	VII-VIII 1 hr. ar.		T 224Bu	Mr. Neale

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. Van Wagenen
Ed.Psy.60w,s	Introduction to Statistical Methods (3 cred.; see 60f)	III(w) II(s)		MWF 106Pt MWF 106Pt	Ar Ar
Ed.Psy.120f	Basic Principles of Measurement (3 cred.; sr., grad.; prereq. Ed.Psy. 60 or equiv.)	VII		MWF 209EdH	Mr. Cook
Ed.Psy.120s	Basic Principles of Measurement (3 cred. See 120f)	4:00-6:00		T 209EdH	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 209EdH	Mr. Cook
Ed.Psy.141w	Group Aptitude Testing (3 cred.; sr., grad.; prereq. 120 or equiv.)	VII		MWF 301Psy	Mr. Miller

* 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.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
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 Wagenen
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 Wagenen
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, Mr. Gordon Anderson
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.)	IX-X	T	109UHS	Mr. Anderson
Ed.Psy.294*	<i>Recent Theory and Research in Human Learning</i> (3 cred. Consult instructor) (<i>Not offered</i>)				

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 Wagenen
Ed.Psy.146-147†	<i>Child Guidance</i> (4 cred.; jr., sr., grad.; prereq. 15 cred. in psy. and ed.) (<i>Not offered</i>)				

* 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.

No.	Title	Hour	Day	Bldg.	Instructor
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.)	II	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

SECONDARY EDUCATION

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.

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	TTh	301Psy	Mr. Brameld and others
H.Ed.74w	Social Viewpoints in Education (3 cred.; soph., jr., sr.; no prereq.)	VII	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) VII(s) and 1 hr. ar.	MWF	301Psy	Mr. Brameld
H.Ed.101f	Historical Foundations of Modern Education (3 cred.; jr., sr., grad.; no prereq.)	VI	MWF	210Bu	Miss Alexander
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	<i>History of Modern Elementary Education</i> (3 cred.; jr., sr., grad.; no prereq. Not open to students who have had H.Ed. 71) (<i>Not offered in 1945-46</i>)				
H.Ed.110s	Intercultural Education (3 cred.; jr., sr., grad.; prereq. 9 cred. in ed. or consent of instructor)	IX-X	T	210Bu	Mr. Brameld, Miss Lien
H.Ed.155s	History of Public Education in the United States (3 cred.; jr., sr.; no prereq.)	VI	MWF	210Bu	Miss Alexander

COLLEGE OF EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
H.Ed.176f	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)				
H.Ed.179w	Critical Thinking for Teachers (3 cred.; jr., sr., grad.; prereq. 6 cred. in psy.)	IX-X	M	301Psy	Mr. Brameld
H.Ed.180w	The School and the Social Order (3 cred.; jr., sr., grad.; prereq. 6 cred. in soc. sci.)	VII	MWF	301Psy	Mr. Brameld
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)				
H.Ed.240	Philosophic Foundations of Modern Education (3 cred.; grad.; no prereq.) (Not offered)				
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, Clara M. Brown, and 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 157.

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	313HE(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. 1-2, Ed. 51A, 51C, parallel H.E.Ed. 93 and 192; home experience**)	VIII IX	MWF M	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. 1-2, Ed. 51A, 51C, parallel H.E.Ed. 91, 192; home experience**)	Ar	Ar Ar		Miss Rose, Miss Kafka, and others

† 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 114HE.

INDUSTRIAL EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
H.E.Ed.95	Field Experience for Home Demonstration Agents (6 cred.; prereq. completion of jr. yr., consent of head of Home Economics Education and director of Extension)				
H.E.Ed.192f,w,s	Evaluation in Home Economics (2 or 3 cred.; jr., sr., grad.; prereq. Ed. 51A, H.E.Ed. 91 or parallel)	VIII II(f) grad. only	TTh MWF	213HE 114HE	Miss Clara Brown, Miss Rose
H.E.Ed.193Af,s	Home Economics Curriculum (2 or 3 cred.; sr., grad.; prereq. permission of instructor) Secondary school level	IX-X	W	114HE	Miss Clara Brown, Miss Rose
H.E.Ed.193Bw	College level	III	MWF	114HE	Miss Clara Brown
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	405HE	Miss H. Gold- stein
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. consent of instructor)	VI	MWF	213HE	Miss Clara Brown
H.E.Ed.293f,w,s*	Problems in Home Economics Education (1 to 9 cred.; prereq. H.E.Ed. 294 recommended, permission of instructor)	Ar	Ar	Ar	Miss Clara Brown, Miss Rose
H.E.Ed.294f,w,s*	Research Methods (3 to 6 cred.; prereq. H.E.Ed. 192 and permission of instructor)	VI	MWF	203HE	Miss Clara Brown, Miss Rose
H.E.Ed.295f,w,s*	Seminar in Home Economics Education (1-3 cred.)	IX	Th	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	Mr. La Berge
Ind.30f	Graphic Presentation (3 cred.; no prereq.)	IV	MWF	Ar	Mr. Smith

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

* This course may be taken for independent study under Plan B for the Master's degree.

‡ Not a part of the four-year curriculum.

COLLEGE OF EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
Ind.40f	Analysis (2 cred.; no prereq.)	IX-X	T	202EdH	Mr. Widdowson
Ind.42w	Course Organization (2 cred.; prereq. Ind. 40)	IX-X	T	202EdH	Mr. Widdowson
Ind.44s	Equipment and Management (2 cred.; prereq. Ind. 40, 42)	IX-X	T	202EdH	Mr. Widdowson
Ind.50Af-50Bw-50Cs†‡	Directed Teaching (6 cred.; sr.; prereq. Ind. 70 or 75, and 80)	Ar	Ar	6Pt	
Ind.60	<i>Philosophy of Vocational Education</i> (2 cred.; no prereq.) (Not offered)				
Ind.61	<i>Practices in Vocational Education</i> (2 cred.; prereq. Ind. 60) (Not offered)				
Ind.66f	Related Subjects (2 cred.; prereq. Ind. 40, 42)	IX-X	W	202EdH	Mr. Smith
Ind.70s‡	Methods in Shop Subjects (3 cred.; prereq. Ind. 40, 42)	IX-X	W	202EdH	Mr. Smith
		and 1 hr. ar.			
Ind.75	<i>Methods in Drawing</i> (Not offered)				
Ind.80w	General Industrial Training (2 cred.; no prereq.) (Not a shop course)	IV	MWF	Ar	Mr. Smith
Ind.101s	Tests in Industrial Subjects (3 cred.; prereq. Ed. 51A)	IX-X	F	202EdH	Mr. Smith
		and 1 hr. ar.			
Ind.102w¶	The General Shop (2 cred.; jr., sr.; prereq. Ind. 80) (Not a shop course)	IX-X	M	202EdH	Mr. Widdowson
Ind.103f¶	Instructional Aids (3 cred.; jr., sr., grad.; others with consent of instructor)	IX-X	M	202EdH	Mr. Widdowson
Ind.104	<i>Defense Training</i> (2 cred.; no prereq.; jr., sr., grad.; may be used in substitution for certain courses) (Not offered)				
Ind.105s¶	Administration of Industrial Education (3 cred.; jr., sr., grad.)	III-IV	S	Ar	Mr. Smith
		and 1 hr. ar.			
Ind.107¶	<i>Co-ordination</i> (2 cred.; jr., sr., grad.; prereq. Ind. 60, 61 or 105 or consent of instructor) (Not offered)				
Ind.108¶	<i>Apprenticeship</i> (2 cred.; jr., sr., grad.; prereq. consent of instructor) (Not offered)				
Ind.109s¶	Conference Leading for Industry (2 cred.; prereq. consent of instructor)	IX-X	M	202EdH	Mr. Widdowson
Ind.110w	Guidance in the Schools (3 cred.; jr., sr., grad.; prereq. Ed. 51A. See Ed. 133)	IX-X	W	202EdH	Mr. Smith
		and 1 hr. ar.			
Ind.115¶	<i>Supervision of Industrial Education</i> (3 cred.; jr., sr., grad.; prereq. 60-61 or 105) (Not offered)				
Ind.125f¶	Philosophy and Practice of Industrial Education (3 cred.; jr., sr., grad.; others with consent of instructor)	IX-X	F	202EdH	Mr. Smith
		and 1 hr. ar.			
Ind.170¶	<i>Day Industrial Schools</i> (2 cred.; jr., sr., grad.) (Not offered)				
Ind.171	<i>Evening Industrial Schools</i> (Not offered)				
Ind.172w¶	Part-time Education (3 cred.; jr., sr., grad.; prereq. Ind. 170, 171, others with consent of instructor)	IX-X	F	202EdH	Mr. Smith
		and 1 hr. ar.			
Ind.200f,w,s*¶	Research Problems—Individual conferences only (3, 6, or 9 cred.; total of 9 cred. required; graduates only)	Ar	Ar	200EdH	Mr. Smith
Ind.250f-251w¶	Industrial Education Literature (3 cred. a qtr.; 6 credits required; graduates only)	III-IV	S	Ar	Mr. Smith
		and 1 hr. ar.			

* 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.

† 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. Industrial education and shop courses constitute the major.

¶ Not a part of the four-year curriculum.

Off-Campus Courses and Services—Mr. Widdowson.

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—Associate 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.

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 speech and 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 Lip-reading 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. Ed. 51A; prereq. or parallel 51B, 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.			

* Room schedule will be posted on the bulletin board 125 Medical Sciences at the beginning of each quarter.

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

‡ Taking the speech and 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

RECREATION LEADERSHIP

No.	Title	Hour	Day	Bldg.	Instructor
Ed.T.85Af-85Bw-85C†‡	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	Ar Ar	Mr. Nordly

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.55f†	Principles of Early Childhood Education (3 cred.; jr., sr.; prereq. C.W. 80 or simultaneously)	VIII	MWF	202Pt	Mrs. Fuller
Ed.T.56w,s†	Permanent Play Materials (2 cred.; jr., sr.; prereq. Ed.T. 55)	VII	WF	202Pt	Miss Peterson
Ed.T.57w,s†	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.)	IX	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	Miss Peterson
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	

† 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 speech and psychological examinations are prerequisite to registration in this course.

No.	Title	Hour	Day	Bldg.	Instructor
Ed.T.66Bf-66Aw- 66Cs†‡§	Special Methods and Directed Teaching in Secondary School English (9 cred.; sr.; prereq. consent of instructor)	VIII VIII and 6 hrs. ar.	TTh(f,w) TTh(s)	210Bu 308F	Miss Smith Mr. Gilkinson
Ed.T.66Amw†§	The Teaching of Composition in Secondary Schools (2 cred.; sr.)	VIII(f) VI-VII(s)	TTh T	210Bu 206Bu	Miss Smith Miss Smith
Ed.T.66Bmf,s†§	The Teaching of Literature in Secondary Schools (2 cred.; sr.)	VIII	TTh	210Bu	Miss Smith
Ed.T.67Af-67Bw- 67Cs†‡§	Special Methods and Directed Teaching in Mathematics (9 cred.; sr.; prereq. Math. 50 or 60)	VIII and 6 hrs. ar.	TTh	211UHS	Mr. Donevan Johnson
Ed.T.67Amf- 67Bmw†‡§	The Teaching of Secondary School Mathematics (4 cred.; sr.; prereq. consent of instructor)	VIII	TTh	211UHS	Mr. Donovan Johnson
Ed.T.68Af-68Bw- 68Cs†‡§	Special Methods and Directed Teaching in Secondary School Science (9 cred.; sr.; prereq. consent of instructor)	IX and 6 hrs. ar.	MW	213UHS	Mr. Palmer Johnson
Ed.T.68Amf- 68Bmw†‡§	Methods of Teaching Secondary School Science (4 cred.; sr.; prereq. consent of instructor)	IX	MW	213UHS	Mr. Palmer Johnson
Ed.T.69Af-69Bw- 69Cs†‡§	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- 70Cs†‡§	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- 71Cs†‡§	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- 73Cs†‡§	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 Riley

† 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 speech and 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.T.74w†§	Teachers Course in Journalism (3 cred.; jr., sr.; prereq. Jour. 41 or 51)	VII	MWF	420MurH	Mr. Kildow
Ed.T.88Af-88Bw-88Cs†§§	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	308F 210Bu	Mr. Gilkinson Miss Smith

MUSIC EDUCATION

Major advisers—Professor Oberg; Assistant Professor 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.4f-5w-6s†	Applied Instrumental Technique (6 cred.; soph.; no prereq.)	I VII	MTWF MTWF	4Mu(f) 4NMA(w,s)	Mr. Nickerson Mr. Martino
Mu.Ed.50Af†¶	Primary Methods (2 cred.; jr.; no prereq.) Sec. 1 (For Mu.Ed. majors)	III	TTh	4Mu	Mrs. Nohavec
Mu.Ed.50Bw†	2 (For nonmajors)	II	TTh	4Mu	Mrs. Nohavec
Mu.Ed.52s†	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. 51C and Mu.Ed. 50A,B)	III	MWF	4Mu	Mrs. Nohavec
Mu.Ed.54w†	Public Performance (3 cred.; jr.; prereq. Ed. 51C)	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 and 6 hrs. ar.	W	4Mu	Mrs. Nohavec
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.65f,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

† 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 speech and 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.

¶ In case of conflict students may register for another section with the approval of the instructor.

** Four credits are required for Mu.Ed. 59. This course should be repeated until all four credits are earned.

PHYSICAL EDUCATION FOR MEN

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No.	Title	Hour	Day	Bldg.	Instructor
Mu.Ed.150f‡	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.153	Advanced Course in Secondary School Music (3 cred.; prereq. consent of instructor) (Not offered in 1945-46.)				
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

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 137. For courses in Public Health Nursing see pages 95-97. 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. 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	Analysis of Nursing Care (4 cred.; sr. or grad. nurse; prereq. permission of instructor)	VI-VII	TTh	Ar*	Miss Harrington and others
Nu.Ed.67f,s	Field Practice in Ward Administration (6 cred.; sr., grad.; prereq. Nu.Ed. 60, 65, 73 and permission of instructor)	IV and ar.	M	Ar*	Mrs. Randall
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	The Curriculum of the School of Nursing (3 cred.; sr., grad.; prereq. Ed. 51A-B and Nu. 69)	VI-VII(f) VI(s)	T MWF	Ar*	Miss Harrington
Nu.Ed.72w	Principles of Learning and Methods of Teaching in Schools of Nursing (3 cred.; grad. nurse.; no prereq.)	VIII IX	TTh Th	Ar*	Miss Harrington
Nu.Ed.73w	Principles of Economics in Nursing Service Administration (1 cred.; sr., grad.; no prereq.)	VIII	M	Ar*	Miss Gorgas

PHYSICAL EDUCATION FOR MEN

Major advisers—Professor Keller; Associate Professor Nordly; Instructor Beise.

For the program in sports education open to all men students in the University, see pages 11-12.

* Room schedule will be posted on the bulletin board 125 Medical Sciences building at the beginning of each quarter.

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

†† One individual lesson per week, 2 credits, \$25; two individual lessons per week, 4 credits, \$50.

COLLEGE OF EDUCATION

COURSES IN MAJOR AND MINOR CURRICULA IN PHYSICAL
EDUCATION FOR MEN

No.	Title	Hour	Day	Bldg.	Instructor
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-5Cc	Physical Education Activities (3 cred.; no prereq.)	III-IV	T	CH	Mr. Beise
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. Beise and others
Phys.Ed.8s	Dual Spring Sports (1 cred.; all; no prereq.)	VII	MWF	215CH	Mr. Smith, Mr. Brain
Phys.Ed.9	<i>Rhythms</i> (1 cred.; jr., sr.) (<i>Not offered in 1945-46</i>)				
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.53††, 54w†,55s††	Methods and Materials in Physical Education (4 cred.; jr.; prereq. 5A-B-C, 6A-B-C, 7A-B-C)	V(f,w,s)	Th	206CH	Mr. Biese
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. Nordly
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	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.73††, 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. Nordly, Mr. Nagel

† 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 speech and psychological examinations and a C+ average (1.5 honor points per credit) in the major are prerequisite to registration in this course.

No.	Title	Hour	Day	Bldg.	Instructor
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
Phys.Ed.136Ef**	Leadership in Community Recreation (3 cred.; sr., grad.; prereq. 56 or equiv. and 10 hrs. in ed. or permission of instructor)	IX-X	T	206CH	Ar
Phys.Ed.137Es**	Recent Literature and Research in Health Education, Physical Education, and Recreation (3 cred.; grad.; permission of instructor)	IX-X IX	T Th	206CH 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-X	M	206CH	Mr. Keller
Phys.Ed.141E**	Administration and Supervision of Public Recreation (3 cred.; jr., sr., grad.)	Ar	Ar		Mr. Nordly
Phys.Ed.142E**	Group Leadership and Community Organization for 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 advisers—Associate Professors Gertrude M. Baker, Helen M. Starr.

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; a fee of \$3.50 per quarter is charged for Phys.Ed. 21A-B-C and for Phys.Ed. 41A-B-C; 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. The maximum fee per quarter does not apply to the methods and directed teaching courses.

For program in physical education open to all women students in the University, see pages 12-16.

** 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.

COLLEGE OF EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
21Af-Bw- Cs*†††	Elementary Physical Education (6 cred.; no prereq.)				
	Sec. 1 (fall) Individual Sports	VIII	TTh	153NGW	Ar
	2 (fall) Team Sports	VII	TTh	60NGW	Ar
	3 (fall) Fundamentals of Rhythm	VI	TTh	153NGW	Ar
	4 (fall) Orientation	VI	W	3NGW	Ar
	5 (winter) Individual Sports	VI-VII	W	Ar	Ar
	6 (winter) Modern Dance	VIII	TTh	151NGW	Ar
	7 (winter) Folk Dancing for Elementary and Secondary Schools	VI	TTh	151NGW	Ar
	8 (winter) Posture and Daily Life Skills	I	TTh	153ANGW	Ar
	9 (spring) Individual Sports	III-IV	S	151NGW	Ar
	10 (spring) Officiating Team Sports	VII	TTh	60NGW	Ar
	11 (spring) Aquatics	VIII	TTh	58NGW	Ar
	12 (spring) Modern Dance	VI	TTh	151NGW	Ar
25f,w	First Aid (1 cred.; no prereq.)	I (fall) II (winter)	TTh MW	201NGW	Ar Ar
41Af-Bw- Cs*†††	Intermediate Physical Education (9 cred.; prereq. 21A-B-C)				
	Sec. 1 (fall) Individual Sports	I-II	S	151NGW	Ar
	2 (fall) Officiating Team Sports	VIII	TTh	151NGW	Ar
	3 (fall) Team Sports	VI	TTh	60NGW	Ar
	4 (fall) Aquatics	III	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 II	S S	60NGW	Ar Ar
	9 (winter) Team Sports	VII	TTh	151NGW	Ar
	10 (winter) Team Sports Officiating	VIII	TTh	153NGW	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	VIII	TTh	60NGW	Ar
	15 (spring) Aquatics	VI	MWF	58NGW	Ar
	16 (spring) Ballroom and Country Dance	II	TThS	153NGW	Ar

* Students must pay 50 cents for tennis permit and supply own golf equipment.

††† A fee of \$3.50 per quarter is charged for this course.

No.	Title	Hour	Day	Bldg.	Instructor
50s††	General Anatomy (4 cred.; prereq. Zool. 1-2-3)	III, IV	MWF	312IA	Ar
51f††	Mechanics of Movement (3 cred.; prereq. 50)	VII, VIII	TTh	3NGW	Miss Riddle
57Aw-Bs†	Technique of Teaching Aquatics (2 cred.; jr.; prereq. 21A-B-C)	III	TThS	58NGW	Miss Starr
60w	Principles of Play (3 cred.; prereq. Psy. 1-2)	III	MWF	201NGW	Miss DeBower
61Af-Bw-Cs†	Technique of Teaching Team Sports (3 cred.; jr.; prereq. 41A-B-C)	II	MWF	151NGW	Miss Snell
63s†	Technique of Teaching Folk Dancing (1 cred.; soph.; prereq. 21A-B-C)	I	MWF	153NGW	Ar
64w†	Technique of Teaching Group Gymnastics (1 cred.; jr.; prereq. 41A-B)	VI	TTh	153NGW	Miss Snell
65As-Bw†	Technique of Teaching Individual and Dual Sports (2 cred.; soph., jr.; prereq. 21A-B-C)	I (spring)	TThS	60NGW	Miss Jaeger
		II (winter)	TThS	60NGW	Miss Jaeger
66Aw-Bf§	Advanced Physical Education (1 cred.; soph., jr.; prereq. 21A-B-C and 41A-B-C)	III	MW	153NGW	Ar
	Sec. 1 (winter)	III	MW	153NGW	Ar
	2 (fall)	I	TTh	50NGW	Ar
73As-Bw†	Technique of Teaching Rhythm (1½ cred.; 73A, ½ cred.; 73B, 1 cred.; soph., jr.; prereq. 66)	III (spring)	TTh	153NGW	Miss Bockstruck
	Sec. A	III (spring)	TTh	153NGW	Miss Bockstruck
	B	I (winter)	TTh	151NGW	Miss Bockstruck
82f	Principles of Physical Education (3 cred.; sr.; permission of instructor)	II	MWF	3NGW	Miss Starr
83ft	Methods and Materials of School Health Education (See Ed.T. 83)				
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	TThS	3NGW	Miss Riddle
86w	Aspects of School Health Appraisal in Physical Education (3 cred.; sr.; prereq. 51 or permission of instructor)	II	MWF	201NGW	Dr. Todd, Miss Starr, Miss Riddle, and others
90Af-Bw- Cs††¶	Student Teaching (8 cred.; sr.; prereq. 65A-B, 60, 61A-B-C, 63, 64, 65)	II (fall and winter)	TThS	3NGW	Miss Starr
		IV (spring)	M	3NGW	Miss Starr
95s	Administration of Physical Education (3 cred.; sr.; prereq. 60, 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	T	3NGW	Miss Baker
		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.

‡ 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.

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

¶ Taking the psychological examinations and a C (1.5 honor points per credit) in the major are prerequisite to 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 Plan A and Plan B in the Graduate School.

COLLEGE OF EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
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 1 hr. ar.	T	3NGW	Miss Baker
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.)	IX, X 1 hr. ar.	W	3NGW	Ar
<i>Electives</i>					
26s	Advanced Course in First Aid (1 cred.; prereq. 25)	VI	MW	201NGW	Ar
54s§	Camp Leadership (2 cred.; no prereq.)	VIII 1 hr. ar.	MW	201NGW	Miss Starr
71§	<i>Applied Physiology</i> (3 cred.; prereq. 51 and Physiol. 51) (<i>Not offered in 1945-46</i>)				
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	Miss Bockstruck

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 95-97 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 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.

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,s	Introduction to Organic and Biochemistry (5 cred.; soph., jr., sr.; prereq. Inorg. Chem. 1 and 2 or 4 and 5§) (Limited to 85f,125s)	II	MTWThF	113SnH	Mr. Greenwood
5s	Plant Biochemistry (5 cred.; soph., jr., sr.; prereq. 4, Soils 4 advised)	I	MTWThF	116SnH(f)	Mr. Greenwood
6f	Animal Biochemistry (5 cred.; soph., jr., sr.; prereq. 4, Soils 4 advised)	II	MTWThF	116SnH	Ar, Mr. Olson

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)	VI	MWF	113SnH	Mr. Jenness
	Lect.	VII, VIII, IX	MWF	208SnH	Mr. Jenness
	Lab.	II	MWF	211SnH	Mr. Geddes
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. Smith
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. 10 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.

AGRICULTURE, FORESTRY, AND HOME ECONOMICS

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)	II	MWF	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.	VIII, IX	F	311HH	
	Lab.				

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.	Ar	Ar		
	Lab.				
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
142s	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 121.

AGRICULTURAL ENGINEERING

Freshman and Sophomore Courses

3s	Mechanical Drawing (3 cred.; no prereq.) (Limited to 60)	VII, VIII	MWF	303En	Mr. Christopherson
5f	Farm Structures Laboratory (3 cred.; prof. agr. eng. only; no prereq.)	I	MW	41En	Mr. Christopherson
	Lect.	II	MW	48En	
	Lab.	I, II	F		
6s	Farm Buildings (4 cred.; no prereq.)	VI, VII, VIII, IX	TTh	48,305En	Mr. White, Mr. Christopherson
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. Allred
12s	Agricultural Machinery (3 cred.; prereq. 23 or equiv.)	I	MWF	216En	Mr. Schwantes
13f	Gas Engines and Tractors (3 cred.; no prereq.) (Limited to 40)	VI, VII, VIII	MF	216,37En	Mr. Torrance
14s	Farm Power and Machinery (4 cred.; prereq. 41, 23 or equiv.)	VI, VII	M	37,216En	Mr. Schwantes
		VI, VII, VIII	WF		Mr. Torrance
15w	Electricity in Agriculture (2 cred.; prereq. 23 or equiv.)	VI	TTh	101En	Mr. Hustrulid
18s	Agricultural Automotives (4 cred.; prof. agr. eng. only; prereq. Phys. 7)	VI	TTh	216En	Mr. Torrance,
	Lect.	VII, VIII, IX	TTh	37En	Mr. Strait
19f	Elementary Surveying (3 cred.; prereq. 3, 11 or trigonometry) (Sections limited to 30 each)	IV	T	105En	Mr. Manson,
	Lect.	VI, VII, VIII	TTh	305En	Mr. Allred
19s	Elementary Surveying (Same as 19f)	IV	T	105En	Mr. Manson,
	Lab.	VII, VIII, IX	TTh	305En	Mr. Allred

No.	Title	Hour	Day	Bldg.	Instructor
20f	Advanced Surveying (3 cred.; prereq. 19) (Limited to 45)				
	Lect.	IV	M	105En	Mr. Manson, Mr. Allred
	Lab.	VII, VIII, IX VI, VII, VIII	M W	305En	Mr. Manson, Mr. Allred
20a	Advanced Surveying (Same as 20f)				
	Lect.	VI	M	105En	Mr. Manson, Mr. Allred
	Lab.	VII, VIII, IX	MF	305En	Mr. Manson, Mr. Allred
21s	Elements of Surveying (5 cred.; prof. agr. eng. only; prereq. Draw. 3 and M.&M. 12)				
	Lect.	V	M	105En	Mr. Manson
	Lab.	VI, VII, VIII, IX	MWF	305En	Mr. Manson
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)				
	Lect.	I	MWF	101En	Mr. Hustrulid
	Lab. Sec. 1	VI, VII, VIII, IX	T	102En	Mr. Tyler
	2	VI, VII, VIII, IX	W	102En	Mr. Hustrulid
24f	Agricultural Physics I (4 cred.; prereq. Math. 6 or equiv.) (Lab. sections limited to 16 each)				
	Lect.	III	MWF	101En	Mr. Hustrulid
	Lab. Sec. 1	VI, VII	M	102En	Mr. Hustrulid
	2	VI, VII	F	102En	Mr. Hustrulid
25w	Agricultural Physics II (4 cred.; prereq. 24)				
	Lect.	I	TThS	101En	Mr. Hustrulid
	Lab. Sec. 1	VI, VII	M	102En	Mr. Hustrulid
	2	VI, VII	F	102En	Mr. Hustrulid
31w,s	Principles of Drainage (3 cred.; no prereq.)				
	Lect.	II(w)	MWF	105En	Mr. Manson
	Lect.	I(s)	MWF	105En	Mr. Manson
32	<i>Elements of Supplemental Irrigation</i> (2 cred.; no prereq.) (<i>Not offered—offered in alternate years</i>)				
33f	Introduction to Soil and Water Control (3 cred.; prereq. 11 or equivalent and Soils 5)				
	Lect.	IV	W	105En	Mr. Manson
	Lab.	VI, VII, VIII	WF		
35f,s	Household Physics (5 cred.; no prereq.) (Lab. sections limited to 16 each)				
	Lect. (f)	III	TThS	101En	Mr. Hustrulid
	Lab. (f) Sec. 1	I, II	ThS	102En	Mr. Hustrulid
	2	VI, VII	TTh	102En	Mr. Tyler
	Lect. (s) Sec. 1	I	MWF	101En	Mr. Hustrulid
	2	III	TThS	101En	Mr. Hustrulid
	Lab. (s) Sec. 1	I, II	TTh	102En	Mr. Hustrulid
	2	VI, VII	MF	102En	Mr. Tyler
	3	VI, VII	TTh	102En	Mr. Tyler
	4	VIII, IX	MF	102En	Mr. Tyler
	5	VIII, IX	TTh	102En	Mr. Tyler
37w,s	Rural Sanitation and Water Supply (3 cred.; no prereq.) (The spring section for prof. agr. eng. only; prereq. M.&M. 129)				
	Lect.	I(w)	MWF	103En	Mr. Tyler
	Lect.	I(s)	MWF	103En	Mr. Tyler
38f	Farm Water Supply and Sewage Disposal (2 cred.; no prereq.)				
	Lect.	I	TS	101En	Mr. Tyler
40s	Mechanical Training (3 cred.; no prereq.) (Limited to 20)				
	Lect.	I, II	MWF	20,106En	Mr. Dent
41w	Metal Work (3 cred.; no prereq.) (Limited to 20)				
	Lect.	I, II	MWF	20,106En	Mr. Dent
42s‡	Art Metal Work (3 cred.; no prereq.) (Limited to 15)				
	Lect.	VI, VII, VIII	WF	20,106En	Mr. Dent
43f	Mechanical Laboratory (3 cred.; prof. agr. eng. only; no prereq.)				
	Lect.	I, II, III, IV	S	20,106En	Mr. Dent
		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.)				
	Lect.	VI		M 303En	Ar
	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 4, 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	
		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) (Offered in 1945-46 and alternate years)				
	Lect.	III	MF	101En	Mr. Hustrulid
	Lab.	VI, VII, VIII, IX	W Ar		
73s	Steam Boilers and Heat Engines (3 cred.; prof. agr. eng. only; prereq. 18 and M.E. 131) (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	Ar	Mr. Manson
104f	The Soil Moisture Relation in Agriculture (3 cred.; not open to engineers; prereq. 9 cred. in agr. eng. including phys.)				
	Ar	Ar	Ar	105En	Mr. Manson
105w	Advanced Soil and Water Conservation (3 cred.; sr., grad.; prereq. 51 or equiv.)				
	Ar	Ar	Ar	105En	Mr. Manson
111f-112w-113s	Farm Building Problems (2 to 6 cred. per qtr.; sr.; prereq. 67)				
	Ar	Ar	Ar	305En	Mr. White,
					Mr. Christopherson
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	Ar	305En	Mr. White,
					Mr. Christopherson
121f,122w,123s	Farm Power and Machinery Problems (2 to 6 cred. per qtr.; jr., sr.; prereq. 71, 72)				
	Ar	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	Ar	105En	Mr. Schwantes
125s	Topics in Agricultural Physics (3 cred.; sr., grad.; prereq. 72 or Calculus and 24, 25 or equiv.)				
	Ar	Ar	Ar	Ar	Mr. Hustrulid
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. Thomas
21w	Grain Crops (4 cred.; soph., jr., sr.; prereq. 1)	VI	MWF	202Ag	Mr. Dunham
	Lect.	VII	MWF	104Ag	Mr. Dunham
	Lab.				
22s	Grain and Hay Grading (3 cred.; soph., jr., sr.; prereq. 1)	I, II	MWF	201Ag	Mr. Dunham
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. Rinke
	Lect.	Ar	Ar	Ar	Mr. Rinke
	Lab.				

Junior and Senior Courses

124s	<i>Problems in Farm Crops</i> (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) (<i>Not offered</i>)				
126f	<i>Crop Judging</i> (4 cred.; jr., sr.; prereq. 22) (<i>Not offered</i>)				
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. Agron. 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.)	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	WSt	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 Grades of Livestock and Livestock Products (3 cred.; jr., sr.; prereq. 1)	II	TThS	3St	Mr. Peters
101f	Livestock Selection (3 cred.; jr., sr.; prereq. 5)	VI, VII	MWF	CSt	Mr. Harvey

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, Animal or Poultry Husbandry (3 cred.; jr., sr.; prereq. 56-57, 112 or Poultry 53, 102)				
		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. 56-57, 112)				
		VI, VII, VIII	MW	3St	Mr. Peters
114s	Artificial Insemination (5 cred.; jr., sr.; prereq. 112 and approval of instructor)				
		III	MWF	MSh	Mr. Green
		VI, VII, VIII	TTh		
116f	Prenatal Development of Farm Animals (3 cred.; jr., sr., grad.; prereq. 112 or equiv. and approval of instructor)				
		IV	MWF	MSh	Mr. Green

POULTRY HUSBANDRY

Freshman and Sophomore Courses

1w,s	Poultry Production (4 cred.; soph.; no prereq.)				
		IV	MTWF	103Ve	Mr. Canfield

Junior and Senior Courses

51s	Hatchery Management (3 cred.; jr., sr.; prereq. 1, Zool. 14-15)				
	Lect.	VII	TTh	103Ve	Mr. Canfield
	Lab.	VIII	TTh	103Ve	
52f	Poultry Judging (3 cred.; jr., sr.; prereq. 1)				
		VII, VIII	TTh	103Ve	Mr. Canfield
53w	Poultry Feeding (4 cred.; jr., sr.; prereq. 1)				
		IV	MTWF	103Ve	Mr. Sloan
54f	Poultry Products (4 cred.; jr., sr.; prereq. 1)				
		VI, VII, VIII	MW	103Ve	Mr. Canfield
102w	Poultry Breeding (3 cred.; jr., sr.; prereq. 1, Agron. 31)				
		I	MWF	103Ve	Mr. Canfield

DAIRY HUSBANDRY

Freshman and Sophomore Courses

1f,s	Elements of Dairying (3 cred.; prereq. entrance cred. in chem. or Inorg. Chem. 1 or 4) (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)				
	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
4f,w,s	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	9HH	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
111f	Dairy Products: Butter (3 cred.; jr., sr.; prereq. 1, 2, 3)	VI, VII, VIII	T		
112s	Dairy Products: Cheese (3 cred.; jr., sr.; prereq. 1, 2, 3)	VI	MW	210HH	Mr. Combs, Mr. Coulter
113s	Technical Control (3 cred.; sr.; prereq. 2, 111 or 112)	VI, VII, VIII	TS	210HH	Mr. Combs
114w	Milk By-Products (3 cred.; jr., sr.; prereq. 1, 3)	I, II, III	TTh	102HH	Mr. Coulter, Mr. Slatter
115s	Advanced Dairy Bacteriology (3 cred.; sr.; prereq. 2, 111 or 112)	I	TTh	210HH	Mr. Coulter
116s	Milk Secretion (3 cred.; sr.; prereq. physiol. 9 cred. and Agr. Biochem. 103)	VI, VII, VIII	TTh	24HH	
117s	Dairy Cattle Breeding (3 cred.; jr., sr.; prereq. 101, 104, Agron. 31)	Ar	Ar	212HH	Mr. Slatter
		I	MWF	214HH	Mr. Petersen
		Ar	Ar	Ar	Mr. Petersen

For course in Dairy Chemistry see Agricultural Biochemistry 103, page 147.

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
13su	Field Zoology (1 cred.; no prereq.)	Given at Itasca Park			Mr. Mickel
14f,s-15w-16s	Principles of Beekeeping (2 to 6 cred.; no prereq.)	IV	MF	307Ad	Mr. Haydak
14s		III	MF		
17f,s-18w-19s	Beekeeping Practice (1 to 3 cred.; prereq. 14-15 or parallel)	II, III, IV	W	307Ad	Mr. Haydak
20f,w,s	Advanced Beekeeping (2 to 6 cred.; prereq. 14 to 19 and 5 cred. in ent.)	Ar	Ar	Ar	Mr. Haydak

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. Marshall
114s	Apiculture (3 cred.; jr., sr.; prereq. 9 cred. in ent.)				
		I	MW	307Ad	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. Marshall
		III	Th		
163f	Mammalogy (4 cred.; jr., sr.; prereq. Zool. 22)				
	Lect.	IV	MWF	100Ad	Mr. Marshall
	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. Marshall
166s	Methods in Wildlife Management (3 cred.; jr., sr.; prereq. 163, 165)				
		VI, VII, VIII	TTh	100Ad	Mr. Marshall
167s	Techniques in Forest Wildlife Management (3 cred.; sr.; prereq. Ent. 165)				
		Given at Cloquet			Mr. Marshall
175f	Insecticides and Their Action (4 cred.; sr.; prereq. inorg. and org. chem.)				
		III	MWF	302Ad	Mr. Richards
		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. Granovsky, Mr. Haydak, Mr. Hodson, Mr. Marshall, - Mr. Richards

FORESTRY

Freshman and Sophomore Courses

1f	General Forestry (3 cred.; no prereq.)	III	TThS	203GH	Mr. Cheyney
2su	Field Dendrology (1 cred.; no prereq.)	Given at Itasca Park			Ar
3w	Dendrology (3 cred.; no prereq.)	II	MWF	203GH	Mr. Rees
4s	Dendrology (4 cred.; no prereq.)	I	MWF	203GH	Mr. Rees
	Lect.	VI-VII-VIII	T	Ar	Mr. Rees
	Lab. Sec. 1	VI-VII-VIII	Th	Ar	Mr. Rees
	2	Given at Itasca Park			Mr. Cheyney
5su	Field Silviculture (2 cred.; no prereq.)	Given at Itasca Park			Mr. Brown
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	203GH	Mr. Brown
	Lect.	VI, VII, VIII	M	206GH	
	Lab. Sec. 1	II, III, IV	S	206GH	
	2	Given at Itasca Park			Mr. Brown
10w	Farm Forestry (3 cred.; not open to students majoring in forestry; no prereq.)	VI	MWF	203GH	Ar
11su	Camp Management (1 cred.; no prereq.)	Given at Itasca Park			Mr. Brown
20w	Grazing (3 cred.; soph., jr., sr.; no prereq.)	II	TThS	201GH	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
56f	Forest Products (3 cred.; jr., sr.; no prereq.)	I	MWF	201GH	Mr. Kaufert
57w	Wood Utilization (3 cred.; sr.; prereq. 53-54)	I	MWF	203GH	Mr. Kaufert
58f	Lumber Merchandising and Grading (3 cred.; sr.; prereq. 53-54)	II	TThS	201GH	Mr. Kaufert
101w	Advanced Dendrology (3 cred.; jr., sr.; prereq. 3, 4)	Ar	Ar	Ar	Mr. Rees
111f-112w- 111w-112s	Advanced Forest Mensuration (6 cred.; sr.; prereq. 9)	VI, VII, VIII, IX	T	206GH	Mr. Brown
	Lect. } 111f,w	VI, VII, VIII, IX	Th	206GH	
	Lab. } 112w,s	Given at Itasca Park			
113w	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	VI, VII, VIII	MW	211GH	Mr. Rees
	116s				

HOME ECONOMICS

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No.	Title	Hour	Day	Bldg.	Instructor
119s	Advanced Wood Structure I (4 cred.; sr.; prereq. 53-54)				
	Lect.	IX	T	209GH	Mr. Kaufert
	Lab.	VI, VII, VIII	TTh	209GH	
120s	Estimating (3 cred.; sr.)				
		IV	MWF	201GH	Ar
125s	Wood Preservation (3 cred.; jr., sr.; prereq. 53-54)				
		III	TThS	201GH	Mr. Kaufert
126f	Silvics (3 cred.; postgrad.; no prereq.)				
		III	MWF	203GH	Mr. Cheyney
127w	Silviculture (3 cred.; postgrad.)				
		II	MWF	201GH	Mr. Cheyney
128s	Silviculture Laboratory (6 cred.; sr.)				
		Given at Colquet			Mr. Cheyney
130f	Forest Valuation (5 cred.; postgrad.)				
		I	MTWThF	203GH	Mr. Allison
131w	Forest Policy and Administration (5 cred.; postgrad.)				
		IV	MTWFS	201GH	Mr. Allison
132s	Forest Regulation Laboratory (6 cred.; sr.)				
		Given at Cloquet			Mr. Allison
136w	Forest Economics (3 cred.; jr., sr.; prereq. Agr. Econ. 2)				
		I	MWF	201GH	Mr. Allison
137w	Seeding and Planting (3 cred.; jr., sr.)				
		III	TThS	201GH	Mr. Cheyney
140f	Forest Management Plans (3 cred.; postgrad.; prereq. 128, 132)				
		III	TThS	201GH	Mr. Allison
141w	Principles of Silvics (3 cred.; postgrad.; prereq. 126)				
		II	TThS	203GH	Mr. Cheyney
142s	Wood Chemistry (3 cred.; jr., sr.; prereq. Org. Chem. 156)				
		II	MWF	201GH	Mr. Kaufert
143f	Forest Recreation (3 cred.; jr., sr.)				
		IV	MWF	202GH	Mr. Cheyney
144s	Forage and Browse Plants (3 cred.; jr., sr., grad.; prereq. Bot. 113 and P.P. 7)				
		Ar	Ar	Ar	Ar
151f,w,s	Logging (3 cred.; jr., sr.)				
		Ar	Ar	Ar	Ar
152s	Wood Seasoning (3 cred.; jr., sr.; prereq. 53-54)				
		I	TThS	201GH	Mr. Rees
155f	Forest Protection (3 cred.; jr., sr.)				
		II	MWF	201GH	Ar
220w-221s	Major Report (2 cred. per qtr.; grad.)				
		Ar	Ar	Ar	Ar
223f-224s	Literature Seminar (1 cred. per qtr.; grad.)				
		Ar	W	202GH	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, 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, 21, 22, 23, 25, 27, 40, 85, 121, 122, 125, 170, 180, 186 are open provided students report to the Home Economics office, Room 215, on the following dates: September 29 for fall quarter, January 7 for winter quarter, and April 1 for spring quarter. This procedure is to protect those who must take these courses as a required part of their chosen home economics curriculum.

Other courses are not open to students in other colleges. Students registered in the College of Science, Literature, and the Arts should read the statement about home economics courses on page 62 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	Ar
1w	Choice and Care of Clothing (Same as 1f) (Limited to 50)	III	MTWTh	313HE	Ar
1s	Choice and Care of Clothing (Same as 1f) (Limited to 50)	II	MTWTh	313HE	Ar
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, VIII	TTh	305HE	Miss Gorham
3w	Clothing Construction A (Same as 3f) (Sections limited to 20 each)	VI, VII, VIII	TTh	305HE	Miss Gorham
3s	Clothing Construction A (Same as 3f) (Sections limited to 20 each)	VI, VII, VIII	TTh	305HE	Miss Gorham
4f*	Clothing Construction B (3 cred.; soph., jr.; prereq. 3 and home practice in clothing) (Sections limited to 20 each)	VI, VII, VIII	TTh	304HE	Miss Gorham
4w*	Clothing Construction B (Same as 4f) (Sections limited to 20 each)	III, IV	MWF	304HE	Ar
4s*	Clothing Construction B (Same as 4f) (Sections limited to 20)	VI, VII, VIII	TTh	304HE	Miss Gorham
6f,w,s	Institution Experience (3 cred.; no prereq.; fr.; each section limited to 3. Institution management majors, consent of instructor)	Ar	Ar	Cafeteria	Miss Dunning
10f	Vocational Opportunities in Home Economics (2 cred.; 1st qtr. fr. only; no prereq.)	II	TTh	203HE	Miss McNeal and heads of sections
17f,w,s	Personal and Family Living (3 cred.; fr., soph., jr., sr.; no prereq.) (Sections limited to 40)				
	Sec. 1	III(f,s)	TThS	213HE	Miss Studley
		II(w)	TThS	213HE	Miss Studley
	2	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)				
	Sec. 1	II	MTWTh	203HE	Ar
	2	IV	MTWF	203HE	Miss V. Goldstein
21f	Color and Design I (3 cred.; prereq. 20) (Sections limited to 24 each)	I, II	MWF	402HE	Miss Paulsen
21w	Color and Design I (Same as 21f) (Sections limited to 24 each)				
	Sec. 1	VI, VII	MWF	402HE	Ar
	2	VI, VII, VIII	TTh	402HE	Ar
21s	Color and Design I (Same as 21f) (Limited to 24)				
	Sec. 1	I, II	MWF	402HE	Miss Walter
	2	VI, VII, VIII	TTh	402HE	Ar

* 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 Walter
22w	Color and Design II (Same as 22f) (Sections limited to 24 each)				
	Sec. 1	III, IV	MWF	402HE	Ar
	2	VI, VII, VIII	TTh	401HE	Miss Walter
22s	Color and Design II (Same as 22f) (Sections limited to 24 each)				
	Sec. 1	VI, VII	MWF	110HE	Ar
	2	VI, VII, VIII	TTh	110HE	Miss Walter
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 Paulsen
	2	VI, VII, VIII	MW	401HE	Miss Paulsen
		VI, VII	F		
25f,s	Design Applied to Crafts (3 cred.; prereq. 21 or 22) (Limited to 24)				
		III, IV	TS(s)	110HE	Miss Walter
		III	Th(s)		
		I-II	MWF(f)	401HE	Ar
27f	Related Art Problems (3 cred.; soph., jr., sr.; prereq. 21) (Limited to 24)				
		I, II	TThS	401HE	Miss Paulsen
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 Paulsen
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 Biester
	2	II	MWF	213HE	Miss Zander
31w	Introduction to Nutrition (Same as 31f) (Limited to 60)				
	Sec. 1	II	MWF	213HE	Miss Zander
	2	IV	MWF	213HE	Miss Zander
31s	Introduction to Nutrition (Same as 31f) (Limited to 60)				
		VI	MWF	203HE	Miss Zander
33f	Nutrition I (4 cred.; soph., jr., sr.; prereq. Agr. Biochem. 4, Physiol. 4 or parallel) (Each laboratory section limited to 24)				
	Lect.	II	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 Zander
34s	Nutrition Problems (Same as 34f) (Limited to 75)				
		I	MTWTh	204So	Miss Donelson
35w	Nutrition II (4 cred.; soph., jr., sr.; prereq. 33) (Each lab. section limited to 24)				
		II	MWF	106HE	Miss Donelson
		VI, VII, VIII	T	211HE	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. Waddell
		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
41f	Food Management and Marketing (5 cred.; soph., jr., sr.; prereq. 31, 40) (Sections limited to 16 each)	2	III, IV III	MTWF Th	103HE Miss Montgomery
		Sec. 1	III, IV V	MTWF TW	207HE Miss Montgomery
41w	Food Management and Marketing (Same as 41f) (Sections limited to 16 each)	2	VI, VII VIII	TWThF TTh	207HE Ar
		Sec. 1	III, IV, V	MT	207HE Ar
41w	Food Management and Marketing (Same as 41f) (Sections limited to 16 each)	2	III, IV, V	WF	107HE
		3	III, IV VI, VII	MT TWThF	207HE Miss Hepworth
			VIII	TTh	207HE Miss Montgomery
41s	Food Management and Marketing (Same as 41f) (Sections limited to 16 each)	Secs. 1 and 2	III, IV	MTWF	105HE Miss Montgomery
			V	TW	207HE Ar
45f¶	Quantity Cookery (6 cred.; soph., jr., sr.; prereq. 40) (Limited to 12)	Lect.	V	TTh	313HE Ar
		Lab.	I, II, III	TThS	Cafeteria Ar
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 Ar
		Lab. Sec. 1	I, II, III	TThS	Cafeteria Ar
		2	I, II, III	MWF	Cafeteria Ar
46f,w,s¶	Cafeteria Experience (3 cred.; soph., jr., sr.; no prereq.) (Sections limited to 10)	Lect.	IV	W	Cafeteria Miss Dunning
		Lab. Sec. 1	IV, V	MF	Cafeteria Miss Dunning
		2	IV, V	TTh	Cafeteria Miss Dunning

Junior and Senior Courses

50f	Textiles (3 cred.; jr., sr.; prereq. 1) (Sections limited to 30 each)	III, IV	TS	307HE	Ar
		III	Th.		
50w	Textiles (Same as 50f) (Sections limited to 30 each)	Sec. 1	III, IV	MWF	307HE Miss Phelps
		2	I, II	TThS	307HE Ar
50s	Textiles (Same as 50f) (Sections limited to 30 each)	I, II	TThS	307HE	Miss Gorham
53f,w,s*	Advanced Clothing (3 cred.; jr., sr.; prereq. 4, 50 or parallel) (Limited to 20)	VI, VII	MWF	305HE	Miss Carlotta Brown, Miss Gorham, Ar
54s	Problems in Clothing Construction (3 cred.; jr., sr.; prereq. 53 or permission of instructor)	V, VI, VII	TTh	112HE	Miss Gorham.

* Home practice in clothing construction is required as prerequisite for Course 4 (or Course 53 for teachers).

¶ Open only to home economics students registered in the College of Agriculture, Forestry, and Home Economics.

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 H. 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	Ar
	Lab.	VI, VII, VIII	F		
65s	Institution Management Problems (3 cred.; jr., sr.; prereq. 45, 46, 64)				
	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	Mrs. Waddell
71s	<i>Demonstrations</i> (1 cred.; open to 3rd qtr. jr., sr.; prereq. 41) (<i>Not offered in 1945-46</i>)				
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,s	Home Management: Operation and Maintenance, Lectures (4 cred.; jr., sr.; prereq. H.E. 40, H.E.Ed. 90 or parallel)				
		VII	MWF	203HE	Miss Jeary
		VIII	M		
86f,w,s	Home Management: Operation and Maintenance, Laboratory (4 cred.; jr., sr.; prereq. 85 or parallel, H.E. 40, H.E.Ed. 90, Public Health 52a and b) (Sections limited to 12 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 in 1945-46</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.; prereq. 50 and Princ. of Econ.)				
		IX	MWF	313HE	Ar
116f	Family Clothing Problems (3 cred.; jr., sr.; prereq. H.E.50)				
		Ar	Ar	Ar	Ar
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
121f	Textile Design (3 cred.; jr., sr.; prereq. 27, 50) (Limited to 24)				
		VI, VII, VIII	TTh	401HE	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)				
		VI, VII	MWF	110HE	Miss Walter
142ff	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.

¶ Open only to home economics students registered in the College of Agriculture, Forestry, and Home Economics.

No.	Title	Hour	Day	Bldg.	Instructor
142w¶	Experimental Cookery (Same as 142f) (Limited to 12)	I, II	MWF	107HE	Ar
146s¶	Special Food Problems (3 cred.; sr.; prereq. 142)	VI, VII, VIII	MW	107HE	Ar
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 Biester
170w	Nutrition of the Family (Same as 170f) (Limited to 40)	I	MWF	313HE	Miss Leichsenring
171w,s	Child Nutrition (3 cred.; jr., sr.; prereq. 170, H.E.Ed. 90) (Limited to 30)				
	Lect.	III	MW	213HE	Miss Leichsenring
		III*	F	Ar	
	Lab.	IV	(See instructor before completing registration)		
173s¶	Nutrition in Disease (4 cred.; jr., sr.; prereq. 170; 35 also advised) (Each lab. section limited to 20)				
	Lect.	I	MWF	213HE	Miss Zander
	Lab. Sec. 1	I, II	T	107HE	Miss Zander
	2	I, II	Th	107HE	Miss Zander
176w	Advanced Nutrition (4 cred.; jr., sr.; prereq. 35 or parallel, Agr. Biochem. 2) (Limited to 12)				
	Lect.	IV	MW	313HE	Miss Biester
	Lab.	I, II, III	TS	311HE	
177s	Digestion and Metabolism (3 cred.; jr., sr.; prereq. 35) (Limited to 15)	VI, VII, VIII	MW	307HE	Miss Leichsenring
178f,w,s¶	Clinical Problems in Nutrition (2 cred.; jr., sr.; prereq. 170, 35 or parallel) (Each lab. section limited to 6) (See instructor before completing registration)				
	Lect.	V	M	313HE	Miss Zander
	Lab. Sec. 1	V, VI, VII, VIII	T	Ar	
	2	V, VI, VII, VIII	Th	Ar	
179f	Readings in Nutrition (2 cred.; jr., sr.; prereq. 170) (Limited to 15)	III	TTh	106HE	Miss Leichsenring
179w	Readings in Nutrition (Same as 179f) (Limited to 15)	I	MW	106HE	Miss Donelson
179s	Readings in Nutrition (Same as 179f) (Limited to 15)	IV	MW	106HE	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	Family Relationships (2 cred.; jr., sr.; prereq. 86 or parallel, H.E.Ed. 90) (Not offered in 1945-46)				
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 134.

* Class meets on Minneapolis campus.

¶ Open only to home economics students registered in the College of Agriculture, Forestry, and Home Economics.

HORTICULTURE

Freshman and Sophomore Courses

No.	Title	Hour	Day	Bldg.	Instructor
1w	General Horticulture (3 cred.; no prereq.)	III	MWF	102Hr	Mr. Alderman, Mr. Weir
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.	
11s	<i>Garden Flowers</i> (3 cred.; prereq. Bot. 9 cred. or equiv.) (<i>Not offered—offered in alternate years</i>)				
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>Offered in 1945-46 and alternate years</i>)	VI, VII, VIII VI, VII	Th T	8Hr	Mr. Longley
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.; Bot. 6 cred.)	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>Offered in 1945-46 and alternate years</i>)	VI, VII, VIII VI, VII	T Th	8Hr	Mr. Longley
107f	<i>Orchard Management</i> (3 cred.; jr., sr.; prereq. 6) (<i>Not offered in 1945-46—offered in alternate years</i>)				
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>Offered in 1945-46 and alternate years</i>)	VI, VII, VIII	TTh	106Hr	Mr. Brierley
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	<i>Conservatory Plants and Florists' Flowers</i> (3 cred.; jr., sr.; prereq. Bot. 9 cred. or equiv.) (<i>Not offered—offered in alternate years</i>)				
176s	<i>Landscape Construction and Maintenance</i> (3 cred.; sr.; prereq. 24 or 25, or instructor's permission) (<i>Not offered—offered in alternate years</i>)				
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, under College of Science, Literature, and the Arts, Courses 43Uf-44Uw-45Us, University Farm Music Ensembles—Vocal and Instrumental, page 76.

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	T	AudAd(UF)(f) 301Ad(UF) (w,s)	

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
3s	Weeds (3 cred.; soph., jr., sr.; prereq. Sec. 1 Lect.)	Bot. 6 cred.) III	(Each section limited to 40 students) 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	
4f	Grasses and Sedges (3 cred.; soph., jr., sr.; prereq. Bot. 9 cred. or equiv.)	III	TThS	106AgrBot	Mr. Larson
		IV	TS	106AgrBot	
9w	Seed Technology and Testing (3 cred.; soph., jr., sr.; prereq. Bot. 9 cred. or equiv.)	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. 6 cred.)	VII, VIII, IX	MWF	103,105PP	Mr. C. Christensen
10s	Forest Pathology (Same as 10w)	I, I, II	MWF TThS	103PP 105PP	Mr. C. Christensen

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
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
56f	Introduction to the Study of Fungi (3 cred.; jr., sr.; prereq. 9 cred. in bot. or permission of instructor)	II, II, III	MW	107PP	Mr. C. Christensen
		Ar	Ar	Ar	Mr. Stakman, Mr. Harvey, Mr. Tervet
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

No.	Title	Hour	Day	Bldg.	Instructor
102w	Physiology of Seeds (3 cred.; jr., sr.; prereq. Bot. 51, and Agr. Biochem. 4)	II	MW		Mr. Landon
		I, II	F		Mr. Larson
104w	Industrial Mycology (3 cred.; jr., sr., grad.; prereq. P.P. 56 or 1 or 10)	II	MW	107PP	Mr. C. Christensen
		II, III	F		
105f-106w-107s	Mycology (3 or 5 cred. per qtr.; jr., sr.; prereq. 1 or 10 or equiv.)	VI, VII, VIII	TTh (f,w)	110PP	Miss Dossdall
		VI, VII, VIII	MW (s)		
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	<i>Diseases of Fruit and Vegetable Crops</i> (3 cred.; jr., sr.; prereq. 1 or 10) (<i>Not offered—offered in alternate years</i>)				
114w	Advanced Forest Pathology (3 cred.; jr., sr.; prereq. 1 or 10)	VI	T	104PP	Mr. C. Christensen
		VI, VII, VIII	Th		
118f	<i>Bacterial Diseases of Plants</i> (3 cred.; jr., sr.; prereq. 1 or 10) (<i>Not offered—offered in alternate years</i>)				
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. plant physiol., Bot. 51)	Ar	Ar	AgrBot	Mr. Landon
161f	Technology of Fruits and Vegetables (3 cred.; sr.; prereq. Plant Physiol., Bot. 51)	Ar	Ar	AgrBot	Mr. Harvey
162w	Physiological Relations of Crop Plants to Temperature (3 cred.; sr.; prereq. plant physiol., Bot. 51)	Ar	Ar	AgrBot	Mr. Harvey
163s	Applied Plant Physiology (3 cred.; jr., sr.; prereq. plant physiol., Bot. 51)	Ar	Ar	AgrBot	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 63.

RHETORIC

Freshman and Sophomore Courses

1f	Rhetoric I (3 cred.; no prereq.) (Sections limited to 30 each)				
	Sec. 1	I	MWF	307En	Mr. Randel
	2	II	MWF	307En	Mr. Randel
	3	III	MWF	310En	Mr. Woods
	4	IV	MWF	310En	Mr. Woods
	5	I	TThS	310En	Mr. Woods
1w	Rhetoric I (Same as 1f) (Limited to 30)	II	MWF	310En	Mr. Woods

1s	Rhetoric I (Same as 1f) (Limited to 30)	I	MWF	310En	Mr. Woods
2f	Rhetoric II (3 cred.; prereq. 1) (Sections limited to 30 each)	II	MWF	308En	Miss Thurston
	Sec. 1	II	MWF	308En	Miss Thurston
	2	I	TThS	307En	Mr. Randel
2w	Rhetoric II (Same as 2f) (Sections limited to 30 each)				
	Sec. 1	II	MWF	308En	Miss Thurston
	2	IV	MWF	307En	Mr. Randel
	3	I	TThS	307En	Mr. Randel
	4	II	TThS	308En	Miss Thurston
	5	III	TThS	307En	Mr. Randel
2s	Rhetoric II (Same as 2f) (Limited to 30)	IV	MWF	307En	Mr. Randel
3f	Rhetoric III (3 cred.; prereq. 2) (Limited to 30)	III	TThS	310En	Mr. Randel
3w	Rhetoric III (Same as 3f) (Sections limited to 30 each)				
	Sec. 1	I	MWF	310En	Mr. Woods
	2	II	TThS	310En	Mr. Woods
3s	Rhetoric III (Same as 3f) (Sections limited to 30 each)				
	Sec. 1	I	MWF	307En	Mr. Randel
	2	II	MWF	308En	Miss Thurston
	3	III	MWF	310En	Mr. Woods
	4	II	TThS	310En	Mr. Woods
12f,w†	Debate and Discussion (3 cred.; soph., jr., sr.; prereq. 3, 22 recommended) (Limited to 40)	IV	MWF	311En	Mr. Nichols
22f†	Public Speaking (3 cred.; soph., jr.; prereq. 3) (Sections limited to 20 each)	I	MWF	311En	Mr. Nichols
	Sec. 1	I	MWF	311En	Mr. Nichols
	2	III	MWF	311En	Mr. Nichols
	3	II	TThS	311En	Mr. Nichols
	4	III	TThS	311En	Mr. Nichols
22w†	Public Speaking (Same as 22f) (Sections limited to 20 each)				
	Sec. 1	I	MWF	311En	Mr. Nichols
	2	III	MWF	311En	Mr. Nichols
	3	II	TThS	311En	Mr. Nichols
	4	III	TThS	311En	Mr. Nichols
22s†	Public Speaking (Same as 22f) (Sections limited to 20 each)				
	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,s†	Play Production (3 cred.; soph., jr., sr.; prereq. 3) (Not offered)				
31f,s	Survey of English Literature I (5 cred.; soph., jr., sr.; prereq. 3) (Limited to 40)	III	MTWThF	308En	Miss Thurston
32f	Survey of English Literature II (3 cred.; soph., jr., sr.; prereq. 3) (Limited to 40)	II	TThS	307En	Mr. Randel
32s	Survey of English Literature II (Same as 32f) (Limited to 40)	I	TThS	307En	Mr. Randel
33w,s	American Life in American Literature (3 cred.; soph., jr., sr.; prereq. 3) (Limited to 40)	II	MWF	307En	Mr. Randel
34f,w	Books and Reading (1 cred.; no prereq.) (Sections limited to 60 each)				
	Sec. 1	I	F	217En	Mr. Woods(f), Mr. Randel(w)
	2	III	F	217En	Mr. Randel(f), Mr. Woods(w)
34s	Books and Reading (Same as 34f) (Limited to 60)	II	F	217En	Mr. Woods

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

Junior and Senior Courses

No.	Title	Hour	Day	Bldg.	Instructor
51f	Exposition (3 cred.; jr., sr.; prereq. 3) (Sections limited to 30 each)	3			
	Sec. 1	IV	MWF	308En	Miss Thurston
	2	II	TThS	308En	Miss Thurston
51w	Exposition (Same as 51f) (Sections limited to 30 each)				
	Sec. 1	III	MWF	308En	Miss Thurston
	2	III	TThS	308En	Miss Thurston
51s	Exposition (Same as 51f) (Limited to 30)				
		II	TThS	308En	Miss Thurston
59s‡	<i>Advanced Play Production</i> (3 cred.; jr., sr.; prereq. 28 or permission of instructor) (Not offered)				
60w,s	Contemporary Literature (3 cred.; jr., sr.; prereq. 3) (Limited to 40)	IV	MWF	310En	Mr. Woods

SOILS

Freshman and Sophomore Courses

4w	Soils (3 cred.; soph., jr., sr.; prereq. Inorg. 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
109w	Anatomy, Physiology, and Hygiene of Poultry (3 cred.; jr., sr.; prereq. Zool. 14-15, Poul. Husb. 1)	VI	MWF	103Ve	Mr. Fenstermacher Mr. Pomeroy

* 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 Benston, Berrettoni, Lund.

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	1VH	Mr. Heaton and others
	Sec. 1	II	MWF	6VH	
	2	IV	MWF	2VH	
3	VI	MWF	221VH		
2w	Industrial Production and Organization (5 cred.; fr. only; no prereq.)				
	Lect.	III	TTh	1VH	Mr. Filipetti and others
	Sec. 1	II	MWF	6VH	
	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	1VH	Mr. Stehman and others
	Sec. 1	II	MWF	2VH	
2	VII	MWF	221VH		
3w	Elements of Money and Banking (See 3f)				
	Lect.	VII	TTh	1VH	Mr. Stehman and others
	Sec. 1	II	MWF	105VH	
2	VII	MWF	205VH		
3s	Elements of Money and Banking (See 3f)				
	Lect.	III	TTh	BuAud	Mr. Stehman and others
	Sec. 1	II	MWF	1VH	
	2	III	MWF	207VH	
	3	IV	MWF	6VH	
4	VII	MWF	207VH		
5f*	Elements of Statistics (5 cred.; soph.; no prereq.)				
	Lect.	III	M	4VH	Mr. Kozelka and others
	Sec. 1	III	TWThF	105VH	
2	VI	TWThF	2VH		

* Not open to students who have received credit in Soc. 45 or B.A. 70.

No.	Title	Hour	Day	Bldg.	Instructor
5w*	Elements of Statistics (See 5f)	I	MTWThF	2VH	Mr. Kozelka and others
5s*	Elements of Statistics (See 5f)				
	Lect.	II	F	4VH	Mr. Kozelka and others
	Sec. 1	II	MTWTh	105VH	
	2	VI	MTWTh	2VH	
6f-7w†	Principles of Economics (10 cred.; soph., jr., sr.; no prereq.)				
	Lect.	II	F	BuAud	Mr. Uppgren and others
	Sec. 1	I	MTWTh	112VH	
	2	II	MTWTh	112VH	
	3	III	MTWTh	112VH	
	4	IV	MTWF	112VH	
	5 (fall only)	IV	MTWF	105VH	
	6	VI	MTWTh	112VH	
	7	VII	MTWTh	112VH	
6w-7s†	Principles of Economics (See 6f-7w)				
	Lect.	IV	T	1VH	Mr. Uppgren and others
	Sec. 1	II	MWThF	210VH	
	2	VI	MWThF	221VH	
	3 (winter only)	VII	MWThF	2VH	
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
10f	An Introduction to Economic Analysis (3 cred.; open to College of Pharmacy students only; no prereq.)	II	MWF	205VH	Ar
20f¶	Elements of Accounting (3 cred.; 3rd qtr. fr., soph.; no prereq.)				
	Sec. 1	I	MWF	307VH	Mr. Heilman and others
	2	II	TThS	307VH	
	3	III	MWF	307VH	
	4	VI	MWF	6VH	
	5	VII	MWF	307VH	
20w¶	Elements of Accounting (See 20f)				
	Sec. 1	II	MWF	221VH	Mr. Heilman and others
	2	III	MWF	6VH	
	3	VI	MWF	307VH	
20s¶	Elements of Accounting (See 20f)				
	Sec. 1	II	MWF	112VH	Mr. Heilman and others
	2	III	TThS	307VH	
	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	I	MWF	210VH	Mr. Heilman and others
	2	II	TThS	307VH	
	3	III	MWF	307VH	
	4 (winter only)	VII	MWF	207VH	

* 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.

SCHOOL OF BUSINESS ADMINISTRATION

No.	Title	Hour	Day	Bldg.	Instructor
25s	Principles of Accounting (1st qtr. of 25-26. See 25f-26w)				
	Sec. 1	I	MWF	307VH	Mr. Heilman
	2	VI	MWF	307VH	and others
26f	Principles of Accounting (2nd qtr. of 25-26. See 25f-26w)				
		VI	MWF	205VH	Mr. Heilman
					and others
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
30w	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
	Sec. 1	I	MTWThF	209VH	and others
	2	VI	MTWThF	209VH(f), 211VH(w)	
32w†-33s*††	Secretarial Training: Typewriting (See 32f-33w)				
	Sec. 1	III	MTWThF	211VH	Miss Donaldson
	2 (spring only)	VII	MTWThF	209VH	and others
32s*††	Secretarial Training: Typewriting (1st qtr. of 32-33. See 32f-33w)	VI	MTWThF	211VH	Miss Donaldson
					and others
33f*††	Secretarial Training: Typewriting (2nd qtr. of 32-33. See 32f-33w)				
	Sec. 1	{ IV	MTWF }	209VH	Miss Donaldson
		{ V	Th }		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	MTWF }	209VH	Miss Donaldson
		{ V	Th }		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
	2	II	MTWThF	211VH	and others
39s†**	Secretarial Training: Shorthand (3 cred.; soph., jr., sr.; prereq. Econ. 38 or consent of instructor)	II	MTWThF	211VH	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.

** 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
40ff-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

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	Mr. Garver
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)				
105	<i>History of Economic Ideas: 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>)				
106s	<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)	VII	MWF	105VH	Mr. Stigler
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>)				
110s	Cartels: Origins, Structures, and Price Policies (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)	VI	MWF	205VH	Mr. Garver
111f	City Planning. Same as Architecture 104, Political Science 123, 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. Filippetti, Mr. Vaile, Mr. Sletto
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>)				
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>)				
140s	The Co-operative Movement (3 cred.; jr., sr., grad.; prereq. Econ. 6-7 or 83)	VI	MWF	105VH	Mr. Vaile

† 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.

SCHOOL OF BUSINESS ADMINISTRATION

No.	Title	Hour	Day	Bldg.	Instructor
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)				
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)	III	TThS	105VH	Mr. Myers
161f	Labor Problems and Trade Unionism (3 cred.; jr., sr.; grad.; prereq. Econ. 6-7 or 83)	I	TThS	207VH	Ar
161w	Labor Problems and Trade Unionism (See 161f)	IV	MWF	2VH	Ar
161s	Labor Problems and Trade Unionism (See 161f)	IV	MWF	1VH	Ar
162w	Labor and Socialist Movements (3 cred.; jr., sr., grad.; prereq. Econ. 161)	VII	MWF	6VH	Ar
164s	Labor Legislation and Social Insurance (3 cred.; jr., sr., grad.; prereq. Econ. 161)	III	TThS	2VH	Ar
172f	Economics of Transportation (3 cred.; jr., sr., grad.; prereq. 20 cred. in soc. sci. including Econ. 6-7 or 83)	II	MWF	105VH	Mr. Nightingale
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
178s	Economics of Consumption (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)	II	MWF	6VH	Miss Canoyer
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
185w	Economics of Marketing (3 cred.; jr., sr., grad.; prereq. Econ. 6-7 or 83)	III	TThS	2VH	Mr. Chute
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
206s	Seminar in Market Prices (3 cred.; grad.)	VIII½-IX	MW	307VH	Mr. Vaile
207f	Theory of Demand (3 cred.; grad.)	VIII½-IX	TTh	307VH	Mr. Stigler
208s	Production and Distribution (3 cred.; grad.)	VIII½-IX	TTh	307VH	Mr. Stigler
233-234	<i>Seminar in Public Finance</i> (6 cred.; grad.) (<i>Not offered—offered in alternate years</i>)				
243-244	<i>Seminar in Money and Banking</i> (6 cred.; grad.) (<i>Not offered</i>)				
251s	Seminar in Industrial Relations (3 cred.; grad.)	VII-VIII½	MW	307VH	Mr. Yoder
257	<i>Seminar in Accounting Theory</i> (3 cred.; grad.) (<i>Not offered</i>)				

† 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.

BUSINESS ADMINISTRATION

For advisers see the Bulletin of the School of Business Administration.

Courses Open to Business Administration Students Only

No.	Title	Hour	Day	Bldg.	Instructor
51f*	Business Law: Contracts (3 cred.; jr., sr.; prereq. Econ. 6-7)				
	Lect.	IV	T	1VH	Mr. Neville
	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. Neville
	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. Neville
	Sec. 1	I	ThS	113VH	
	2	II	ThS	113VH	
54f-55wl	Elementary Accounting—Combined course (8 cred.; jr., sr.; no prereq.)				
		IV	MWFS	307VH	Mr. Miller
56	<i>Property Rights and Obligations</i> (3 cred.; jr., sr.; prereq. B.A. 53) (<i>Not offered</i>)				
57f¶	Money and Banking (3 cred.; jr., sr.; no prereq.)				
		III	MWF	6VH	Mr. Upgren
58f,w,s¶¶	Elements of Public Finance (3 cred.; jr., sr.; prereq. Econ. 6-7)				
		IV	MWF	207VH	Mr. Blakey and others
59w	Life Insurance (3 cred.; jr., sr.; prereq. 50)				
		II	MWF	205VH	Mr. Graves
60	<i>Fire and Marine Insurance</i> (3 cred.; jr., sr.; prereq. Econ. 50) (<i>Not offered</i>)				
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
67s	Retail Store Management for Pharmacy Students (3 cred.; open to College of Pharmacy students only; prereq. Econ. 10 and 30)				
		I	MWF	207VH	Mr. Chute
68f	Sales Management (3 cred.; jr., sr.; prereq. B.A. 77)				
		II	TThS	2VH	Mr. Vaile
69s	Retail Store Management (3 cred.; jr., sr.; prereq. B.A. 77)				
		II	TThS	2VH	Miss Canoyer
70f†	Statistics Survey (3 cred.; jr., sr.; prereq. Econ. 6-7)				
		I	MWF	2VH	Mr. Graves
71w,s	Transportation: Services and Charges I (3 cred.; jr., sr.; prereq. Econ. 6-7)				
		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	TThS	6VH	Mr. Heilman

* No credit will be allowed for B. A. 51, 52, or 53 until all three are completed.

† Not open to students who have received credit in Economics.

‡ 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.

SCHOOL OF BUSINESS ADMINISTRATION

No.	Title	Hour	Day	Bldg.	Instructor
77f,s	Survey in Marketing (3 cred.; jr., sr.; prereq. Econ. 6-7)	I	TThS	1VH	Mr. Vaile(f) Miss Canoyer(s)
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	4VH	Mr. Vaile
89f	Production Management (3 cred.; jr., sr.; prereq. Econ. 6-7 or equiv.)	II	MWF	207VH	Mr. Ostlund
89s	Production Management (See 89f)	III	MWF	1VH	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	Mr. Berrettoni
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
94w	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. Stigler
	Sec. 1	VI	MWF	113VH	Mr. Garver
101w-102s†	Advanced General Economics (See 101f-102w)	VI	MWF	1VH	Mr. Stigler
109s	Business Policy (3 cred.; sr., grad.; prereq. B.A. 101-102)	II	TThS	6VH	Mr. Reighard
112f†	Business Statistics (3 cred.; jr., sr., grad.; prereq. Econ. 5 or B.A. 70)	VI	MWF	1VH	Mr. Mudgett
112w†	Business Statistics (See 112f)	I	TThS	207VH	Mr. Mudgett
112s†	Business Statistics (See 112f)	III	TThS	221VH	Mr. Mudgett
119	<i>Correlation</i> (3 cred.; jr., sr., grad.; prereq. Econ. 5 or B.A. 70) (<i>Not offered</i>)				
120	<i>Index Numbers</i> (3 cred.; jr., sr., grad.; prereq. Econ. 5 or B.A. 70) (<i>Not offered</i>)				
130w,s†	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
134f	Income Tax Accounting (3 cred.; jr., sr., grad.; prereq. B.A. 139 or 151)	I	MWF	105VH	Mr. Reighard

† 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
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	TThS	6VH	Mr. Reighard
139f†§	Advanced General Accounting (3 cred.; jr., sr., grad.; prereq. Econ. 25-26)	IV	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. Borak
145s	Foreign Exchange (3 cred.; jr., sr., grad.; prereq. B.A. 142)	IV	MWF	112VH	Mr. Myers
146w	Investments (3 cred.; jr., sr., grad.; prereq. B.A. 155)	II	TThS	221VH	Mr. Stehman
147	<i>Bank Administration</i> (3 cred.; jr., sr., grad.; prereq. B.A. 142) (<i>Not offered</i>)				
148	<i>The Securities Market</i> (3 cred.; sr., grad.; prereq. B.A. 146 and Econ. 149) (<i>Not offered</i>)				
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
159w	Public Utility and Railroad Accounting (3 cred.; sr., grad.; prereq. B.A. 139 or 151)	II	MWF	1VH	Mr. Heilman
165	<i>Economics of Public Utilities</i> (3 cred.; jr., sr., grad.; prereq. Econ. 3 and 6-7) (<i>Not offered</i>)				
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)	II	TTh	301VH	Mr. Filipetti
	Lect.	II-III	S	301VH	
	Lab.				
171s†	Production Standards (3 cred.; jr., sr., grad.; prereq. B.A. 170)	VI	MW	301VH	Mr. Filipetti
	Lect.	VI	F	301VH	
	Lab.	VI	F	301VH	
		and 1 hr. ar.			
177w	Foreign Trade (3 cred.; jr., sr., grad.; prereq. Econ. 176)	I	MWF	207VH	Mr. Blakey

† 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.

§ Credit may not be received for both B. A. 139 and B. A. 150.

SCHOOL OF BUSINESS ADMINISTRATION

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)	MW	105VH	Mr. Rotzel
		I(w)	TThS	307VH	Mr. Reighard
B. Business Finance (6 cred.; winter and spring)					
		VII	MWF	221VH	Mr. Stehman
C. Marketing (9 cred.)					
		VI-VII½	TTh	105VH	Mr. Vaile(f,w) Mr. Chute(s)
D. Personnel Management (9 cred.)					
		VII½-VIII	TTh	221VH	Mr. Yoder
E. Secretarial Practice (6 cred.; fall and winter)					
		IV	MWF	205VH(f) Miss Donaldson 208VH(w)	
F. Statistics (9 cred.)					
		VI½-VII	TTh	6VH	Mr. Mudgett
G. § Production Management (9 cred.)					
		VII	MWF(f,s)	205VH	Mr. Filipetti
		VI	TTh	205VH	
		and 1 hr. ar. (w)			
H. Insurance (3 cred.; spring)					
		IV	MWF	205VH	Mr. Graves
I. Public Utilities and Transportation (6 cred.; fall and winter)					
		VI½-VII	TTh	113VH	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 Procedures (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

No.	Title	Hour	Day	Bldg.	Instructor	
1f,w,s	History of Nursing (1 cred.; no prereq.)					
	Fall	VIII	W	Ar*	Miss Densford, Mrs. Hawkins	
	Winter	VI	T	Ar*		
	Spring	VI	T	Ar*		
	Sec. A	VI	T	Ar*		
	B	VIII	M	Ar*		
10f,w,s	Introduction to Nutrition (1 cred.; prereq. registration in the School of Nursing)					
	Fall	Sec. A	VIII	M	Ar*	Miss Thomas and assistants
		B	VIII	F	Ar*	
		Winter	VII	W	Ar*	
	Spring	VIII	F	Ar*		
11A,Bf,w,s	Foods and Nutrition (11B—2 cred., 11A—1 cred.; prereq. Nurs. 10)					
	Sec. A	VIII	T	Ar*	Miss Thomas and assistants	
	B	VIII	Th	Ar*		
		plus 3 hrs. lab. ar.				
12f,w,s	Introduction to Nursing (3 cred.; prereq. reg. in School of Nursing)					
	Fall	Sec. A	III	TS§	Ar*	Miss Weaver
		B	IV	WF§	Ar*	
		C	II	WF§	Ar*	
	Winter	Sec. A	IV	TTh§	Ar*	
		B	III	MW§	Ar*	
	Spring	Sec. A	IV	TTh§	Ar*	
		B	IV	MW§	Ar*	
13f,w,s	Introduction to Public Health (2 cred.; prereq. reg. in the School of Nursing)					
		V	TTh	Ar*	Miss Kulzer	
14w,s	Introduction to Medical Sciences (2 cred.; prereq. junior basic program)					
		Ar	Ar	Ar*	Mrs. Coe	
15A,Bf,w,s	Nursing Arts (15A—3 cred., 15B—2 cred.; prereq. Nurs. 12)					
			Ar	Ar	Ar*	Miss Heyse, Miss Filson, Miss Kittelsby
16f,w,s	Nursing Arts (2 cred.; prereq. Nurs. 15)					
			Ar	Ar	Ar*	Miss Heyse, Miss Filson, Miss Kittelsby
18f,w,s	Principles of Medical and Surgical Nursing (4 cred.; prereq. assignment to clinical experience)					
			VI	TTh	Ar*	Medical and surgical staff, University hospitals, Miss Brennan, Miss Love, Miss Moeh- ring, Miss Fleming, Miss Raveling
		and 2 hrs. ar.				
19f,w,s	Principles of Medical and Surgical Nursing (4 cred.; prereq. Nurs. 18)					
			VI	MW	Ar*	Medical and surgical staff, University hospitals, Miss Brennan, Miss Love, Miss Moeh- ring, Miss Fleming, Miss Raveling

* Room schedules will be posted on bulletin board, 125 Medical Sciences, at beginning of quarter.
 § Plus two hours of laboratory work arranged at beginning of the quarter.

SCHOOL OF NURSING

No.	Title	Hour	Day	Bldg.	Instructor
20f,s	Principles of Nursing in Skin Conditions (1 cred.; prereq. Nurs. 18, 19)	4-5 p.m.	M	Ar*	Dermatology staff, Medical School, Mrs. Fischer, Miss Schey
21f,s	Principles of Medical and Surgical Nursing Including Otolaryngological Nursing (2 cred.; prereq. Nurs. 18, 19)	4-5 p.m. and 1 hr. ar.	F	Ar*	Dr. Boies and Otolaryngological staff, Miss Brennan, Miss Love
25f,s	Principles of Orthopedic Nursing (2 cred.; prereq. Nurs. 18, 19)	V and 1 hr. ar.	W	Ar*	Dr. Hall, Miss Love
	B	11-12 and 1 hr. ar.	T	Ar*	Dr. Pohl, Miss Brennan
35f,w,s	Principles of Communicable Disease Nursing (2 cred.; prereq. assignment to Communicable Disease Department)	2-3 p.m. and 1 hr. ar.	Th	Ar*	Dr. Stoesser, Miss Benson
36f,w,s	Principles of Tuberculosis Nursing (2 cred.; prereq. assignment to Glen Lake Sanatorium)	Ar	Ar	Ar*	Medical staff, Glen Lake Sanatorium, Miss Emerson
41f,w,s	Principles of Pediatric Nursing (3 cred.; prereq. Nurs. 18)	3-4 p.m.	MWF	Eustis Amphitheatre	Pediatric staff, University Hospitals, Miss Brown, Miss Smith
42f,w,s	Principles of Nursing in Gynecology and Obstetrics (3 cred.; prereq. Nurs. 18)	3-5 p.m.	TTh	Ar*	Obstetric staff, Medical School, Miss Hoffert, Miss Randall, Miss Paetznick
44f,w,s	Observation of the Normal Child. (1 cred.; prereq. student in basic program assigned to nursing school.)				
45w,s	First Aid (1 cred.; prereq. Nurs. 18, 19)	Ar	Ar	Ar*	Ar
49f,w,s	Principles of Ophthalmological Nursing (1 cred.; prereq. assignment to ophthalmological department Miller Hospital)	Ar	Ar	Ar*	Miss Billings
50f,w	Professional Adjustments (2 cred.; prereq. senior diploma program, School of Nursing)	VIII	TTh	Ar*	Miss Densford, Miss Randall
53f,w,s	Introduction to Nursing in Community Health Agencies (2 cred.; prereq. assignment to public health agency)	Ar	Ar	Ar	Miss MacMillan, Miss Nelson
54f,w	Introduction to Public Health (1 cred.; prereq. senior diploma program, School of Nursing)	Ar	Ar	Ar*	Miss Freeman

* Room schedules will be posted on bulletin board, 125 Medical Sciences, at beginning of quarter.

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General Information
Summary Edition for Winter and Spring Quarters
1945-1946



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UNIVERSITY CALENDAR, 1946

1946

Winter Quarter

January	4	Friday	Entrance tests ¹
January	4-5		Registration ² for new students in all colleges except Institute of Technology
January	5	Saturday	Registration for Institute of Technology. Registration and payment of fees for new students in all undergraduate colleges closes at noon
January	7	Monday	Winter quarter classes begin 8:30 a.m. ³
January	19	Saturday	Last day for registration and payment of fees for the Graduate School, teachers in service, and adult special students
January	28	Monday	Extension registration, second semester begins
February	9	Saturday	First semester extension classes close
February	11	Monday	Second semester extension classes begin ⁴
February	12	Tuesday	Lincoln's Birthday; holiday (except extension)
February	14	Thursday	Senate meeting, 3:30 p.m.
February	16	Saturday	Last day for extension registration
February	21	Thursday	Charter Day Convocation, 11:30 a.m.
February	22	Friday	Washington's Birthday; holiday (except extension)
March 15-16 and 18-21			Final examination period
March	21	Thursday	Spring quarter fees due for students in residence winter quarter in undergraduate colleges. Winter quarter ends 6:00 p.m.; Commencement, 8:00 p.m.

Spring Quarter

March	29	Friday	Entrance tests ¹
March	29-30		Registration ² for new students in all colleges except Institute of Technology
March	30	Saturday	Registration for Institute of Technology. Registration and payment of fees for new students in all undergraduate colleges closes at noon
April	1	Monday	Spring quarter classes begin 8:30 a.m. ³
April	13	Saturday	Last day for registration and payment of fees for the Graduate School, teachers in service, and adult special students
April	19	Friday	Good Friday; holiday (except extension)
May	9	Thursday	Senate meeting, 3:30 p.m.
May	16	Thursday	Cap and Gown Day Convocation
May	30	Thursday	Memorial Day; holiday (except extension)
June	7	Friday	Second semester extension classes close
June 7-8 and 10-14			Final examination period
June	9	Sunday	Baccalaureate service
June	14	Friday	Spring quarter ends 6:00 p.m.; Seventy-fourth annual commencement, 8:00 p.m.

For footnotes, see page 4.

CALENDAR

Summer Session

June	17-18		Registration, ² first term. First term fees due for students in all colleges
June	19	Wednesday	First term Summer Session classes begin 8:30 a.m. ³
July	4	Thursday	Independence Day; holiday
July	25	Thursday	Commencement, 8:00 p.m.
July	27	Saturday	First term closes
July	29	Monday	Registration, ² second term. Second term fees due for students in all colleges
July	30	Tuesday	Second term classes begin 8:30 a.m. ³
August	31	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.

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 31. No student may register in the University after one week from the beginning of the quarter except 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.

INFORMATION FOR MEN AND WOMEN WITH MILITARY SERVICE RECORDS

CREDIT POLICIES

1. **Application for credit for educational achievement during military service**—Personnel *now on active duty* should submit the United States Armed Forces Institute Form No. 47 provided for this purpose. Form No. 47 may be obtained from your educational officer or from the United States Armed Forces Institute, Madison 3, Wisconsin.

Veterans of World War II *no longer on active duty* should submit a certified copy of W.D., A.G.O. Form 100, Separation Qualification Record, or Notice of Separation from the U. S. Naval Service, NavPers 553; or U.S.M.C. Report of Separation; or Notice of Separation from the U. S. Naval Service—Coast Guard, 553. In the case of Naval commissioned or warrant officers, the Officer's Qualification Record Jacket (NavPers 305), a certified copy thereof, or a statement from the Bureau of Naval Personnel covering the data desired should be submitted.

2. **Basic or boot training**—Upon receipt of certification, as provided in item 1, of completion of basic or boot training in the Armed Forces, credit will be allowed as follows providing such work does not duplicate courses already credited.

Basic Military or Naval Science	6 credits
Physical Education	2 credits

3. **Advanced military training**—Students who present evidence of having attained a commission of second lieutenant or higher, in the Army or Army Air Forces, will be allowed credit as follows providing such work does not duplicate courses already credited:

Advanced Military Science	18 credits
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4. **Formal service courses and schools**—Upon receipt of certification, as provided in item 1, academic credit as recommended by the American Council on Education, Guide to the Evaluation of Educational Experience in the Armed Services, will be allowed for Armed Services Formal Service Courses and Schools for enlisted men, officers, and officer candidates.

5. **U.S.A.F.I. correspondence courses**—Upon receipt of official certification from the Armed Forces Institute, Madison 3, Wisconsin, credit as recommended by the American Council on Education, Guide to the Evaluation of Educational Experience in the Armed Services, will be allowed for Armed Forces Institute college level correspondence courses on the basis of end-of-course test and/or subject examination.

6. **College or university correspondence courses**—Upon receipt of official transcript of record from the institution from which the correspondence course was taken (the procedure by which civilian course credit is transferred) credit will be allowed for college level correspondence courses taken from colleges and universities in co-operation with the Armed Forces Institute.

7. **Credit for ASTP, V-12, and other programs conducted on college campuses**—Upon receipt of official transcript of record from the institution where course was taken (the procedure by which civilian course credit is transferred) credit will be allowed on the same basis as approved for similar courses offered at the University of Minnesota. Credit will be allowed to the extent that work completed is applicable to the curriculum to be followed providing such work does not duplicate courses already credited.

8. **Credit for other educational experiences**—On the basis of General Educational Development Tests or on the basis of advanced standing examinations that may be taken on the campus with approval of the Advanced Standing Committee of the college con-

cerned, credit will be allowed for other educational experience such as independent or group study, or information acquired through travel to the extent that it is demonstrated that the equivalent of courses, not already credited, have been completed.

ADMISSION PROCEDURES

Application for admission may be made either in person or by mail. Application blanks are available at the Office of Admissions and Records. **IMPORTANT: Application for admission, and high school, ASTP, V-12, Armed Forces Institute, and previous college records must be filed with the director of admissions and records.**

Non-high school graduates—Veterans who left high school before graduating may be considered for admission by examination. Application for admission and test authorization may be obtained from the director of admissions and records. Results of General Educational Development examinations given by the Armed Forces Institute will be accepted in lieu of university examinations normally required. Admission status and classification will be based on test results, high school record, educational experience in the Armed Forces, and judgment of counselor, college dean, and director of admissions after personal interview. Non-high school graduates who are accepted for admission may receive advanced standing to the extent that educational experience in the Armed Forces has been the equivalent of college courses. Non-high school graduates, because of tests and interviews required, must necessarily make application in person. Write to the director of admissions and records for application for admission and test authorization.

High school graduates who meet requirements for admission by certificate 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 graduates who do not meet requirements for entrance by certificate may be considered for admission by examination. 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.

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. Write to the director of admissions and records for application for readmission.

Applicants from other colleges and universities—Veterans who have attended other colleges or universities, 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). Write to the director of admissions and records for application for admission with advanced standing.

REGISTRATION PROCEDURE

Upon arriving at the University report to the Office of the University Bureau of Veterans Affairs, 203 Eddy Hall for general instruction and information. Bring your letter of eligibility for training obtained from the Veterans Administration. If enrolling in the College of Agriculture, Forestry, and Home Economics report to the Secretary of the Veterans Training Committee, 202 Administration Building, University Farm.

Every quarter for the duration of your training authorization you should proceed as follows:

1. Have a conference with college adviser.
2. **Register** in the same manner as all other students in your college and obtain statement of fees.

3. **Present fee statement and Veterans Administration authorization for training to Trainee Account Clerk**, Window 18, Office of Admissions and Records, to have statement approved for collection from Veterans Administration. If you are enrolling in the College of Agriculture, Forestry, and Home Economics, present fee statement to Office of Admission and Records, 203d Administration Building, University Farm.
4. **Obtain fee receipt from Bursar**. Turn in your approved fee statement to the Bursar, who will give you a receipt showing that your fees are being paid by the Veterans Administration. If you are enrolling in the College of Agriculture, Forestry, and Home Economics, turn in your approved fee statement to the Cashier, 203b Administration Building, University Farm, who will give you a receipt showing your fees are being paid by the Veterans Administration.
5. **Present fee receipt and list of courses, signed by your adviser, to Bureau of Veterans Affairs, 203 Eddy Hall**, to obtain purchase voucher on the basis of which books and supplies may be obtained from one of the University Bookstores. Required books and supplies, including Chemistry Deposit Cards and rental cards for lockers and microscopes are issued on the basis of these vouchers. Each department in the University prepares lists of requirements for each course, and approval is based on these lists.
6. **Cancellation of registration**. It is very important that veterans who discontinue attendance notify the Office of Admissions and Records, University Bureau of Veterans Affairs, 203 Eddy Hall, and Mr. J. G. Pease, Veterans Administration, Minneapolis 6 of this fact as soon as they terminate their attendance.

COUNSELING FACILITIES

The University, in recognition of the difficulty many veterans will have in becoming adjusted to student life, has established a special committee to supervise the counseling of veterans:

NAME	DIVISION	OFFICE
E. G. Williamson, Chairman	Dean of Students	213 Administration
Curtis E. Avery, Executive Secretary	Bureau of Veterans Affairs	203 Eddy Hall
Gordon V. Anderson	Student Counseling Bureau	101 Eddy Hall
True Pettengill	Office of Admissions and Records	105 Administration
Ruth Boynton	Students Health Service	Health Service
Blanche Moen	Library	210 Library
Donald G. Paterson	College of Science, Literature, and the Arts	114 Psychology
J. W. Buchta	University College	147 Physics
E. W. Johnson	Institute of Technology	133 Engineering
George C. Priester	College of Engineering and Architecture	208 Engineering
L. S. Heilig	School of Mines and Metallurgy	102 Appleby Hall
M. Cannon Sneed	School of Chemistry	245 Chemistry
Theda Hagenah	General College	300 Westbrook Hall
Marcia Edwards	College of Education	202 Burton Hall
J. O. Christianson	School of Agriculture	205 Administration (Agricultural Campus)
W. M. Sandstrom	College of Agriculture, Forestry, and Home Economics	202 Administration (Agricultural Campus)
Maynard Pirsig	Law School	111 Law
Shirley Miller	Medical School	218 Institute of Anatomy
William H. Crawford	School of Dentistry	149 Medical Sciences
Charles V. Netz	College of Pharmacy	306 Wulling Hall
R. L. Kozelka	School of Business Administration	127 Vincent Hall
William T. Heron	Graduate School	253 Psychology
	Extension Division	402 Administration

The committee members will be glad to talk over with veterans any problems that might arise. In the college in which he enrolls the veteran will be assigned to a special

veterans' adviser, who will help him plan his course program and counsel him on non-scholastic matters. Every instructor and professor will also co-operate in easing the veteran's transition from military discipline to academic independence.

In addition to the counseling offered by committee members, advisers, and instructors, the following all-university agencies providing counseling of special kinds include the Student Counseling Bureau, Speech Clinic, Students' Health Service, Bureau of Loans and Scholarships, Student Activities Bureau, Reading Clinic, Student Union, and others.

VETERANS' FACILITIES

Veterans Administration—The Veterans Administration has been designated by the government as the authorizing agency for training under the Servicemen's Readjustment Act of 1944 (G. I. Bill) and under the vocational rehabilitation act for veterans with service-connected disabilities. Veterans approved for training under either act 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. (Telephone: Dupont 2381.)

Department of Veteran Affairs, 512 Ryan Building, Seventh and Robert Streets, St. Paul, is the official agency for administration of the State Rehabilitation Law. Veterans who are legal residents of Minnesota should investigate the provisions of this state law for emergency aid and educational rehabilitation.

Veterans Information and Referral Service, 15 North Eighth Street, Minneapolis (Telephone: Atlantic 4344), is a co-operative venture of several federal, state, and Minneapolis agencies. Counseling and information are provided by trained interviewers. Discharge papers are duplicated without charge, other important documents at a nominal fee. Veterans are given aid in filling out applications and other papers.

ADMISSION

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.

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

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 report for registration.

B. TIME OF ENTRANCE

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:

Following are the registration dates:

Winter quarter, 1946

Registration	January 4-5
Classes begin	January 7

Spring quarter, 1946

Registration	March 29-30
Classes begin	April 1

Summer quarter, 1946

Registration	June 17-18
Classes begin	June 19

Admission to the following schools and colleges requires two or more years of pre-professional 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.

Professional School

Law School
Medical School
School of Dentistry
College of Education

Preprofessional Course

Two years in Science, Literature, and the Arts
Three or more years in Science, Literature, and the Arts
Two years in Science, Literature, and the Arts
Two years in Science, Literature, and the Arts; or in Agriculture, or in Home Economics; or in the General College; or five quarters in Science, Literature, and the Arts and ten quarters in the School of Nursing. Exceptions are the special four-year courses of study in Art Education, Industrial Education, Kindergarten and Primary Education, Music Education, and Physical Education to which students are accepted by the College of Education directly from high school.
Two years in Science, Literature, and the Arts; Agriculture, Forestry, and Home Economics; or the Institute of Technology

School of Business
Administration

C. REQUIREMENTS FOR ADMISSION

1. ADMISSION BY EXAMINATION

a. High School Graduates

High school graduates, regardless of subject-matter pattern in high school, may be considered for admission by examination.

These tests are of the objective type, intended to measure aptitudes for college work rather than specific information in high school fields. No special preparation for the examinations is practicable.

b. Non-High School Graduates

With the concurrence of the Minnesota Council of School Executives and the Minnesota High School Principals Association, provision has been made to consider for admission non-high school graduates, men or women, who show evidence of sufficient maturity to adjust to college life and achieve satisfactorily in college if it can be demonstrated that it would be to their best interest to enroll in the University before the normal time of admission.

Such students may be considered for admission by examination.

Decision will be based on the high school record, test results, and judgments, with respect to maturity and best interest, of the high school principal, the parents, and all-university counselor, the dean of the college, and the director of admissions. All cases where differences of opinion arise will be reviewed by the Board of Admissions.

Students desiring to apply for admission to the University before graduation from high school should arrange to come to the campus for a period of two or three days for testing and counseling several weeks in advance of the quarter they desire to enter. At that time application for admission, including high school credits and grades, and letters of recommendation from the principal and parents should be filed with the office of admissions and records.

2. ADMISSION BY CERTIFICATE FROM HIGH SCHOOL

Applicants must be graduates of an accredited high school and must satisfy the scholarship and subject-matter requirements of their college to be admitted.

Non-resident applicants must be in the upper half of their high school class or pass entrance tests to be considered.

The requirements for admission to the various colleges follow.

a. Definitions

In listing the requirements, reference is made to admissions groups, units, majors and minors.

1. Admissions group referred to include:

Group A: English

Group B: Foreign Languages (major or minor must be in one language)

Group C: History and Social Sciences (major must include at least 2 units in History; a minor, at least 1 unit in History)

Group D: Mathematics

Group E: Natural Sciences (for major or minor in this group, not more than 2 half-unit courses may be included)

Group F: Vocational and Miscellaneous Subjects

2. A unit means a one-year high school subject taken in Grades X, XI, and XII (senior high school).

3. A major means at least 3 units in one admission group.

4. A minor means at least 2 units in one admission group.

5. From either Admission Group B (foreign languages) or Admission Group D

(mathematics), *but not from both*, one unit completed in Grade IX may be used toward a major or a minor. If this is done, however, the unit completed in Grade IX may not be counted as part of the minimum of twelve units required from Grades X, XI, and XII nor as part of the units specified in Groups A through E.

b. Requirements

College of Science, Literature, and the Arts—

1. Applicants for this college must have a college aptitude rating of 40 or better to be admitted directly. Others will be given individual consideration and may be permitted to take special tests to qualify for admission. The college aptitude rating is the average of the student's rank in his high school graduating class and his rank on the college aptitude test. High school graduates in the upper 10 per cent of their class are admitted without examination.

2. At least 12 units must have been completed in Grades X, XI, and XII (senior high school) including at least 9 units in standard subjects (Groups A through E).

3. Either 1 major and 2 minors or preferably 2 majors and 1 minor must be presented including:

A major in Group A, English

A major or a minor in Group D, Mathematics

Institute of Technology—

1. Applicants must be in the upper 60 per cent of their high school graduating class. Others will be given individual consideration and may be permitted to take special tests to qualify for admission.

2. At least 12 units must have been completed in Grades X, XI, and XII (senior high school) including at least 9 units in standard subjects (Groups A through E).

3. Either 1 major and 2 minors or preferably 2 majors and 1 minor must be presented including:

A major or a minor in Group A, English

A major in Group D, Mathematics, including Higher Algebra and Solid Geometry.

Students will be accepted without higher algebra or solid geometry or both. Such students must register for and complete these courses during their first quarter. No university credit is given for either of these courses.

College of Agriculture, Forestry, and Home Economics—

Agriculture—Applicants who are in the upper 25 per cent of their high school graduating class may be admitted regardless of subjects taken in high school. It is nevertheless recommended that such students select high school courses to conform as nearly as possible with requirements for other students listed below.

1. Applicants who are below the upper 25 per cent of their high school graduating class must have completed at least 12 units in Grades X, XI, and XII (senior high school) including at least 9 units in standard subjects (Groups A through E). Eight units in standard subjects will be accepted provided one unit of senior high school agriculture is presented in Group F.

2. Either 1 major and 2 minors or preferably 2 majors and 1 minor must be presented including:

A major or a minor in Group A, English

A major or a minor in Group D, Mathematics, *or* one unit in Group D provided the student registers in one of the following curricula: Technical Agriculture, Agricultural Education, Agricultural Extension, and Agricultural Business Administration, and takes Higher Algebra in the freshman or sophomore year of college.

One unit in Group E *or* one unit in senior high school agriculture.

Forestry—Applicants who are in the upper 25 per cent of their high school graduating class may be admitted regardless of subjects taken in high school. It is nevertheless recommended that such students select high school courses to conform as nearly as possible with requirements for other students listed below.

1. Applicants who are below the upper 25 per cent of their high school graduating class must have completed at least 12 units in Grades X, XI, and XII (senior high school) including at least 9 units in standard subjects (Groups A through E).

2. Either 1 major and 2 minors or preferably 2 majors and 1 minor must be presented including:

A major or a minor in Group A, English

A major or a minor in Group D, Mathematics

One unit in Group E

Home Economics—Applicants who are in the upper 25 per cent of their high school graduating class may be admitted regardless of subjects taken in high school. It is nevertheless recommended that such students select high school courses to conform as nearly as possible with requirements for other students listed below.

1. Applicants who are below the upper 25 per cent of their high school graduating class must have completed at least 12 units in Grades X, XI, and XII (senior high school) including at least 9 units in standard subjects (Groups A through E). Eight units in standard subjects will be accepted providing one unit of senior high school home economics is presented in Group F.

2. Either 1 major and 2 minors or preferably 2 majors and 1 minor must be presented including:

A major or a minor in Group A, English

College of Education—Art Education, Elementary Education, Industrial Education, Kindergarten and Primary Education, Music Education, and Physical Education.

1. At least 12 units must have been completed in Grades X, XI, and XII (senior high school) including at least 9 units in standard subjects (Groups A through E).

2. Either 1 major and 2 minors or preferably 2 majors and 1 minor must be presented including:

A major in Group A, English

3. Applicants for Music Education must present in addition:

A major or a minor in Group D, Mathematics

4. Applicants for teacher training in other fields must meet requirements for admission to the College of Science, Literature, and the Arts where they will be registered during the first two years of the curriculum.

General College—There are no special requirements for admission to the General College. All graduates of accredited high schools may be admitted.

School of Nursing, three-year course—

1. Applicants must be not more than thirty-five years of age and must submit satisfactory evidence of physical and mental fitness and pass a satisfactory general medical examination by the University Health Service. References supplying satisfactory evidence of good character must also be submitted.

2. Applicants who are in the upper third of their high school graduating class and who have satisfactory aptitude ratings may be admitted providing other requirements are met; those in the middle third who pass the Nursing Entrance Tests may be admitted; those in the lowest third are advised not to enter but may take the Nursing Entrance Tests if desired.

3. At least 12 units must have been completed in Grades X, XI, and XII (senior high school) including at least 9 units in standard subjects (Groups A through E).

4. Either 1 major and 2 minors or preferably 2 majors and 1 minor must be presented including:

A major in Group A, English

A major or a minor in Group D, Mathematics

5. Applicants for the five-year course must meet requirements for admission to the College of Science, Literature, and the Arts where they will be registered during the first five quarters of the curriculum.

College of Pharmacy—

1. Applicants for this college must have a college aptitude rating of 40 or better to be admitted directly. Others will be given individual consideration and may be permitted to take special tests to qualify for admission. The college aptitude rating is the average of the student's rank in his high school graduating class and his rank on the college aptitude test. High school graduates in the upper 10 per cent of their class who have had 2 units of mathematics are admitted without examination.

2. At least 12 units must have been completed in Grades X, XI, and XII (senior high school) including at least 9 units in standard subjects (Groups A through E).

3. Either 1 major and 2 minors or preferably 2 majors and 1 minor must be presented including:

A major in Group A, English

A major or a minor in Group D, Mathematics

Course for Dental Hygienists—

1. Applicants for this college must have a college aptitude rating of 40 or better to be admitted directly. The college aptitude rating is the average of the student's rank in his high school graduating class and his rank on the college aptitude test. Applicants are selected on the basis of scholarship, character, and general fitness. High school graduates in the upper 10 per cent of their class are admitted without examination.

2. At least 12 units must have been completed in Grades X, XI, and XII (senior high school) including at least 9 units in standard subjects (Groups A through E).

3. Either 1 major and 2 minors or preferably 2 majors and 1 minor must be presented including:

A major in Group A, English

3. ADMISSION WITH ADVANCED STANDING

Students who have completed one or more years of satisfactory work at another college or university of recognized standing may be admitted with advanced standing. Students who have completed less than one year of college work must meet the requirements for admission from high school and must submit high school credits in addition to their college transcript.

Applications for advanced standing should be made, if possible, at least two months before the quarter for which admission is desired. Application blanks may be obtained from the director of admissions and records.

Advanced standing is allowed to the extent that courses completed are acceptable to the University of Minnesota. The certified record of courses taken in other institutions including ASTP, V-12, and other Armed Forces College Training Programs must be upon the official transcript blank of the institution concerned and should include or be accompanied by a statement of honorable dismissal. Students who have attended more than one institution must submit a transcript of record from each.

To be admitted, *nonresident applicants* must have a "C" average at previous institutions attended. Each application for admission to a senior professional school or college from a nonresident of Minnesota should be accompanied by a \$5 credential examination fee. Senior professional schools are Medical School, School of Dentistry, Law School,

College of Education, except courses admitting freshmen, and School of Business Administration. Remittance should be in the form of check, bank draft, or money order, payable to the University of Minnesota. Please do not send cash.

Candidates wishing to gain advanced standing by examination are allowed examinations without charge, provided they are taken within six weeks after admission.

4. ADMISSION AS AN ADULT SPECIAL STUDENT

Persons of mature age (twenty-four years or older) and experience and persons who have received a Bachelor's degree who desire a special and limited course of study may be admitted to any college of the University as an adult special student.

Veterans under 24 years of age may be accepted as adult special students providing it is demonstrated that they have sound vocational objectives and the requisite ability.

Such applicants must submit the information called for on the regular application blank, and must obtain the recommendation of the dean of the college concerned and the approval of the director of admissions and records.

An adult special student may not be a candidate for a degree without meeting admission requirements. Adult special students may apply to the director of admissions for regular classification after one full year of work (45 credits) has been completed with C average.

II. Admission to the Graduate School

Any student with a Bachelor's degree or its equivalent from a recognized college or university may apply to the dean of the Graduate School for admission. An applicant of satisfactory scholastic record whose Bachelor's degree was granted by an institution on the list of colleges and universities approved by the Association of American Universities will be admitted, with the approval of the major department concerned, for graduate work involving a major in that department.

An applicant whose scholastic record and qualifications are unsatisfactory will be refused admission to the Graduate School, but may be advised to register for a probationary period as an adult special student in the appropriate undergraduate college. Such an adult special student must complete successfully one quarter's work in courses acceptable for credit by the Graduate School before being permitted to transfer his registration to the Graduate School.

College graduates who simply desire to take additional work of undergraduate character without a view to ultimate preparation for an advanced degree should not apply for admission to the Graduate School but should register as special students in the college giving the work.

All inquiries concerning admission to the Graduate School should be addressed to the dean. Applications for admission must be accompanied by official transcripts in duplicate of undergraduate work and single official transcripts of any graduate work that may have been taken. Applications should be sent to the dean of the Graduate School at least two weeks before matriculation.

COURSES AND DEGREES

A full outline of each of these courses of study together with descriptions of the subject-matter courses which they include will be found in the announcement of the college or school in which the course of study is offered.

These announcements may be obtained by addressing the Director of Admissions and Records, University of Minnesota, Minneapolis 14, Minnesota.

Courses Open to Freshmen

COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS

1. **The four-year course leading to the degree of bachelor of arts or bachelor of science**—Fields of specialization include: Anthropology, Architecture, Astronomy, Bacteriology, Biostatistics, Botany, Chemistry, Classics, Economics, English, Fine Arts, Geography, Geology and Mineralogy, German, History, Journalism, Linguistics and Comparative Philology, Library Training, Mathematics, Music, Philosophy, Physics, Physiology, Political Science, Psychology, Romance Languages, Sociology and Social Work, Speech, Public Health, Theological Training (preparation for), Zoology.

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

Public Administration—A six-year course leading to the degree of bachelor of arts or bachelor of science and the degree of master of arts in public administration.

Diplomatic and Consular Service—A five-year course leading to the degree of bachelor of arts and the degree of master of arts.

Social Work—A six-year course leading to the degree of bachelor of arts, a special certificate, and the degree of master of arts.

3. **Combined arts and professional courses**—

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

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

Arts and Dentistry—A seven-year course leading to the degrees of bachelor of arts and doctor of dental surgery.

Arts and Dental Hygiene—A four-year course leading to the degrees of graduate dental hygienist and bachelor of arts.

Arts and Architecture—A six-year course in Arts and Architecture leading to the degrees of bachelor of arts and bachelor of architecture.

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. With the aid and approval of their adviser, students may choose their courses from the many subjects of study offered by the college to freshmen and sophomores. The

only specific requirements 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. **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.

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: Aeronautical, Civil, Electrical, and Mechanical Engineering; Engineering Prebusiness, Engineering and Business Administration (5 years), and Architecture. Agricultural Engineering is offered in co-operation with the College of Agriculture, Forestry, and Home Economics. The School of Chemistry offers professional courses of study in Chemistry, Chemical Engineering, and Physics; Chemistry or Chemical Engineering and Business Administration (5 years).

The School of Mines and Metallurgy offers professional four-year courses of study in Mining Engineering, Geological Engineering, Petroleum Engineering, and Metallurgical Engineering.

Technical Aide Curricula—Two-year course leading to Technical Aide certificate to prepare men for sub-professional positions in practical applied technical work in industry, in the contracting and construction field, public works, and in engineering offices. Courses are offered in the following fields: Draftsman, Maintenance and Operation, Production, General Construction, Chemical Analyst.

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.

ALL-COLLEGE CURRICULA

Food Technology
Science Specialization
Wildlife Maangement

AGRICULTURE

Four-Year Curricula

Technical Agriculture
Pre-theological "major" in agriculture
Pre-veterinary Medicine

Agricultural Education
 Agricultural Extension
 Agricultural Engineering
 Agricultural Engineering Business Administration
 Agricultural Business Administration
 Agricultural Journalism
 Rural Education

Five-Year Curricula

Agricultural Education—leading to the degree of master of education
 Agricultural Technology—leading to the degree of agricultural technologist

FORESTRY

Five-Year Professional Curricula

General Forestry
 Range Management
 Game Management

Four-Year Technological Curricula

Lumber Merchandising and Construction
 Wood Technology

HOME ECONOMICS

Four-Year Curricula

Dietitians
 Home Economics Education
 Home Economics in Business
 Institution Management
 General Home Economics
 Home Economics and Nursery School Education
 Preparation for Research in (a) Textiles and Clothing or (b) Foods and Nutrition

Five-Year Curriculum

Home Economics Education—leading to the degree of master of education

COLLEGE OF EDUCATION

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.

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.

There are, in addition, 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, in industrial education, in home economics education, in agricultural education, and in rural education.

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.

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 determining 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 approved college or 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.

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

COLLEGE OF PHARMACY

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.

COURSES 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.

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.

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.

Altho three years of college work 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.)

The School of Nursing—See page 18.

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 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.

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.

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.

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.

For those whose time is more limited, a certificate in business administration is available after three years of work in a prescribed curriculum in pre-business and in the School of Business Administration.

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, Industrial Management, Insurance, Merchandising, Office Management, Personnel Management, Secretarial Training, and Traffic and Transportation.

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.

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 offers training for several types of positions which require a knowledge in these two fields. 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.

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 course in dentistry leads to the degree of bachelor 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.

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.

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.

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.

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.

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.

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, 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.

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.

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 Officers' Reserve Corps.

NAVAL SCIENCE AND TACTICS

The Naval Reserve Officers' Training Corps provides a five (5) term course for selected, physically qualified male students. The selections are made from students in the Navy V-12 Program who have completed two (2) terms of sixteen (16) weeks each. A student who completes this course satisfactorily is eligible for a commission as ensign, United States Naval Reserve, provided he is 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.

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., Education, Ag., F., & H. E., General, P.H.	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	28.95	28.95††	28.95	28.95	28.95	28.95	28.95	9.65
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	55.00	55.00	55.00	55.00	55.00	55.00	55.00	18.00
Room rent	130.00	130.00	130.00	130.00	130.00	130.00	130.00	45.00
Board	330.00	330.00	330.00	330.00	330.00	330.00	330.00	110.00
Books and instruments	45.00	45.00††	45.00†††	218.00*	50.00†	220.00‡	45.00	45.00
Total	\$679.95	\$700.95	\$730.95	\$969.95	\$693.95	\$1010.95	\$715.95	\$335.65

* 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 \$30.15, 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 29.

** Technical Aide Curriculum: tuition fee \$108.

UNIVERSITY SERVICES TO STUDENTS

PERSONNEL AIDS

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.

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, lisping, 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

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 through the Students' Health Service upon the established basis.

CULTURAL AND RECREATIONAL FACILITIES

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.

Convocations—At eleven-thirty each Thursday morning, except for holidays and examination periods, an established authority on some subject of general interest is presented at Northrop Memorial Auditorium to students, staff, and faculty members of the University of Minnesota. Not only do they offer a liberal education in adventure, art, foreign news, music and dance, science, and world affairs, but they are at the same time highly entertaining. All classes are dismissed for convocation hour and the library is closed. It is intended that students, staff, and faculty attend these convocations. The

general public is likewise invited. The convocations are always preceded by an organ recital. Both the organ recital and the convocation address are broadcast over KUOM.

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

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

In Room 308 current art magazines, books on various art subjects, and pictorial material are available to those who wish to use them there. This room and Room 306 are open in the afternoons from 1:30-5:00 and on Saturday mornings.

Music—The University is proud to be the home of the Minneapolis Symphony Orchestra of which Mr. Dimitri Mitropoulos is the 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. Season tickets may be purchased for this series of concerts at an exceptionally reasonable price. The office is located in Room 109 Northrop Memorial Auditorium.

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 is in Room 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 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, dance, aquatics, conditioning exercises, gymnastics, and recreational activities has its headquarters in the Norris Gymnasium for Women. The instruction program is based upon an activity guidance plan in which each woman student is helped to plan her own program in terms of her interests, needs, and health status. The Women's Athletic Association, which is open to all registered women students, is a student-run organization under the sponsorship of the Department of Physical Education for Women. The program offers

a wide variety of recreational activities, individual and team sports, including an extensive intramural schedule, and an opportunity for club participation in such activities as aquatics, dancing, and riding where special skill is a basis for membership. Facilities and equipment are available for use every afternoon and certain evenings. Expert leadership is provided for this voluntary participation program.

An 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.

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. The Farm 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

Student employment—Any student who wishes to earn money to help 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, 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.

Student loans—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. 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. 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 Bureau of Loans and Scholarships, to the Employment Bureau, or 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 and 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.

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

Housing Regulations—

1. Students, whether graduates or undergraduates, while attending the University must have their places of residence approved by the director of the Student Housing Bureau in the office of the dean of students. This includes all apartments, private dwellings, and other residences.
2. A room is engaged for a complete quarter unless otherwise specifically arranged with the householder. A copy of such special arrangements should be filed with the director of the Student Housing Bureau.
3. Notice must be given at least ten days before the close of a quarter if a student wishes to move at the end of the quarter. However, if a student withdraws from the University for any reason, he may terminate the written or verbal contract by giving one week's notice *in writing*.
4. Men and women students may not room in the same house.
5. Disputes which cannot be satisfactorily settled by the student and the householder should be referred to the director of the Student Housing Bureau.

Housing for women*—The capacity of Ada Comstock Hall, the newest dormitory, has been increased to accommodate 375 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 275 women and provides both single and double rooms.

Ten co-operative cottages, each in charge of a chaperon, 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, located on the Agricultural campus, is available for approximately 47 women students registered in the College of Agriculture, Forestry, and Home Economics. All residents of Meredith Hall are required to take their meals at the Agricultural campus cafeteria, but with the provision that those students who must be on the Main campus at noon, by previous approval of the agricultural cafeteria manager, may be privileged to take certain noon luncheon meals in Comstock Hall. Board and room

* 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 to J. O. Christianson, 205 Administration Building, University Farm, St. Paul 8, Minnesota.

will be paid for by the term, in advance. Inquiries regarding Meredith Hall should be addressed to J. O. Christianson, 205 Administration Building, University Farm, St. Paul 8, Minnesota.

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.

Housing for married graduate students—Thatcher Hall, providing living accommodations for thirty-six married students, with their families, registered in the Graduate School, is located on the University Farm campus. The address is 2024 Commonwealth Avenue, St. Paul.

Quarters are rented by lease on a twelve-month basis from September 1 to August 31.

Graduate students interested in residence at Thatcher Hall should communicate with the real estate manager, Room 12 Administration Building.

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. 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. Light lunches and commuters' dining service are available at the Farm Union located in the Old Dairy Hall building.

APPENDIX

UNIVERSITY FEES

The university year, extending from October to June is divided into three terms called quarters. On the specified dates (see Calendar, pp. 3-4) prior to the opening of each quarter, the following fees are due from each student: (a) tuition, (b) incidental, and (c) such special fees and deposits as may be required.

TUITION FEES

School or College†	Quarter Fee		Credit Hour Fee*	
	Resident	Nonresident	Resident	Nonresident
General College	\$25.00	\$56.00	\$2.25	\$4.75
Science, Literature, and the Arts.....	25.00	56.00	2.25	4.75
Agriculture, Forestry, and Home Economics	25.00	56.00	2.25	4.75
Public Health	25.00	56.00	2.25	4.75
Education	25.00	56.00	2.25	4.75
Graduate School‡‡	32.00	56.00	2.75	4.75
Institute of Technology	32.00	60.00	2.75	5.00
Technical Aide	36.00	72.00	3.00	6.00
Law School	42.00	71.00	3.50	6.00
Medical School and Clinical Graduate Work	77.00	150.00	6.50	12.50
Medical Technology, X-ray Technology....	42.00	64.00	3.50	5.50
Physical Therapy	42.00	64.00	3.50	5.50
Dentistry	65.00	108.00	5.50	9.00
Dental Hygiene	27.00	56.00	2.25	4.75
Pharmacy	37.00	60.00	3.25	5.00
Business Administration	32.00	56.00	2.75	4.75
Library Instruction	42.00	56.00	3.50	4.75
University College	Tuition of college in which work is taken			

Nursing—Tuition (1st quarter) \$50 for both residents and nonresidents; (2nd through 10th quarters) \$20 for both residents and nonresidents; (11th, 12th, and postgraduates) no fee. All students in the School of Nursing pay the full quarterly tuition rate. Students repeating courses of the 1st quarter will be considered as attending 2nd quarter for fee purposes.

Psychiatric Nursing—Tuition \$100 a quarter for both residents and nonresidents; \$9.65 incidental fee for 1st quarter only.

INCIDENTAL FEE

An incidental fee of \$9.65 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

* Students carrying less than the complete schedule of work may pay fees on a credit hour basis.

† All fellows, scholars, assistants, instructors, research associates, and members of the teaching staff and scientific bureaus and experiment stations giving 25 per cent or more of full-time service when regularly enrolled as students in the Graduate School or in the final year of the Master's degree (including agricultural technologist degree) curricula in undergraduate colleges are not required to pay tuition fees. This does not apply to commercial fellowships.

‡‡ Tuition of \$5 per quarter is charged graduate students who have completed all course work and who are registered for thesis work only.

Bulletin, the university post-office service, and the *University Address Book*. Students in the Institute of Technology pays \$10.05 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 students 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

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)

Large diploma fee: any graduate may receive the large diploma on payment of the special fee of..... 5.00

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

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 29.

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 \$8.15 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

† 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.

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.

Students who are called, or volunteer, for active duty with the armed forces of the United States as evidenced by presentation of order to report for induction before the end of the current quarter are entitled to refund of tuition on the following basis:

- a. Full refund for cancellation through the fifth week.
- b. One-half refund for cancellation during the sixth week and to the beginning of the last week of classes.
- c. No refund for cancellation during or after the last week of classes.

The refund of the incidental fee representing service charges will be on the normal basis.