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The Bulletin of the

UNIVERSITY OF MINNESOTA

College of Education

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How to Use This Bulletin

This bulletin is divided into three major parts: Section I, General Information; Section II, Curricula; and Section III, Description of Courses. Each serves a different and specific purpose. Together they provide the answers to most of the questions that students ask concerning the requirements, courses, and procedures in the College of Education.

Section I, General Information, contains detailed information about the things that prospective and present students most often want to know — the kinds of programs offered in the College of Education, admission requirements and application procedures, requirements for graduation, the student services available, and the procedures by which a student moves from one level to the next in his professional training.

Section II, Curricula, outlines the courses of study provided in the College of Education for the professional preparation of teachers in various fields and lists the names of faculty advisers in each field.

Section III, Description of Courses, lists all the courses offered in the College of Education at both undergraduate and graduate levels and provides a summary description of the work in each course.

An additional source of information about the College of Education and its procedures is the *information desk* in the college office, 204 Burton Hall.

Some students and prospective students in the College of Education will frequently refer also to the *Bulletin of the College of Science, Literature, and the Arts*, others to the *Bulletin of the College of Agriculture, Forestry, Home Economics, and Veterinary Medicine*, and all will need to be familiar with the *Bulletin of General Information*. All of these bulletins are available at the information booth in the Administration Building.

Section I. General Information

The College of Education at the University of Minnesota was established in 1905 to train men and women for teaching in the schools of Minnesota and to provide preparation for other kinds of educational service. The college aims to build a strong cultural and professional foundation for teaching in elementary and secondary schools and in institutions of higher learning; to train school administrators; to attempt the solution of important educational problems by means of research; to render assistance to school officials in meeting local problems; and to develop a philosophy of education suited to the needs of American life. Toward these ends the College of Education utilizes all the resources of its own faculty and works in cooperation with other colleges of the University.

COURSES OF STUDY

In some fields of study, such as elementary school teaching, the student enrolls in the College of Education as a freshman and does all of his undergraduate work in this college. In other fields, such as high school teaching in the academic subjects, the student completes a two-year preparatory program of general and liberal education either in the College of Science, Literature, and the Arts of the University or in some other institution and then enters the College of Education as a junior for two or three years of professional study. In two fields, home economics education and agricultural education, the student completes two years of work in the College of Agriculture, Forestry, Home Economics, and Veterinary Medicine and then registers jointly in that college and the College of Education for the remainder of his undergraduate study. It is important for a student who plans a career in teaching to know at the very outset the general pattern of university training in the field of his interest. The following paragraphs describe the general patterns of university study in the several fields of education.

Four-year programs in the College of Education—Students who wish to prepare for teaching in the following fields register as freshmen in the College of Education and complete the whole undergraduate program in this college. In all of these fields an optional fifth year of study leading to the master of education degree is offered.

Elementary school teaching (including
nursery school-kindergarten-
primary teaching)
Art education
Industrial education
Music education

Physical education for men
Physical education for women
Recreation leadership and administration
Rural education
Teaching of exceptional children

Two-year programs in the College of Education requiring two years of college preparation—Students who wish to prepare for teaching in high schools or other professional work in the following fields spend their freshman and sophomore years in the College of Science, Literature, and

the Arts taking prescribed preparatory work and then enroll in the College of Education as juniors. Additional work leading to advanced degrees is offered in the College of Education and in the Graduate School.

Business and distributive education	Natural science
The core curriculum	Political science
English	Public health (minor field only)
Geography	Romance languages
German	Social studies (history, political science, geography, economics, sociology)
History	Sociology
Journalism (minor field only)	Speech
Language Arts	Speech pathology
Latin	Visiting teachers
Mathematics	

Special programs in Agriculture and Home Economics—Students who wish to prepare for careers in the teaching of agriculture or home economics register for freshmen and sophomore years in the College of Agriculture, Forestry, Home Economics, and Veterinary Medicine. Beginning with the junior year registration is a joint one—in the College of Agriculture, Forestry, Home Economics, and Veterinary Medicine—and in the College of Education. An optional fifth year of study leading to the master of education degree is offered in each of these programs.

Special program in Nursing Education—The course in nursing education is offered by the College of Education jointly with the School of Nursing and the College of Science, Literature, and the Arts. Nurses who have completed a program in an accredited school of nursing may enter this program with advanced standing.

Graduate study in Education—Programs of study leading to the master of education (M.Ed.) degree in the College of Education are described elsewhere in this bulletin. Graduate study leading to the master of arts (M.A.) degree in the Graduate School is offered with majors in the following fields of education:

Agricultural education	History and philosophy of education
Curriculum and instruction	Home economics education
Education	Industrial education
Educational administration	Physical education
Educational psychology	

Graduate study leading to the doctor of philosophy (Ph.D.) degree is offered with majors in education, educational administration, and educational psychology.

ADMISSION REQUIREMENTS*

As the preceding section on courses of study indicated, students who plan to enter certain fields of teaching enroll in the College of Education as freshmen, while those interested in other fields take two years of pre-professional college work before enrolling in the College of Education as juniors. Any student who intends to enter the College of Education, therefore, should read carefully the general section of this bulletin on courses of study, the exact curriculum in which he is interested, and the particular admission requirements in this section that apply to the teaching field he has chosen. Detailed information concerning these general entrance requirements, as well as university admission procedures and estimated expenses, will be found in the *Bulletin of General Information*. This will be sent to any interested person upon request to the Dean of Admissions and Records, University of Minnesota.

* Procedures to be followed in application for admission, as well as other procedures and practices in the College of Education, are described on pages 18 to 21.

General admission requirements in the College of Education—Certain admission requirements apply particularly to students seeking to enter the College of Education.

1. Admission to the College of Education will be authorized on the basis of academic standards and appraisal of other factors of fitness for teaching. Continuation in teacher training is subject to a review of qualifications at entrance to the junior year for students in four-year programs, entrance to practice teaching, and at any other point in training that may be necessary in individual cases.

2. At the time of entrance to the college, whether as a freshman in one of the four-year courses or as a student with advanced standing, the student must present a certificate from the Students' Health Service indicating that he has no physical defects or health conditions that would prevent successful pursuit of educational work.

3. Students applying for admission to the College of Education must present a record of success in previous academic work.

a. Students entering the college as freshmen in four-year courses must have earned a percentile rank of 40 or higher in their high school graduating class. Such students will be admitted to the college without reference to the pattern of courses taken in high school, although graduation from high school is required.

b. Students entering the college with advanced standing must have earned at least a C+ (1.5) average in all college courses that will be counted toward their major in the College of Education, and at least a C average for all of their previous college work.

4. Students who intend to enter the College of Education as juniors after two years of preprofessional study in the College of Science, Literature, and the Arts must meet the freshman entrance requirements of the latter college.

5. All students entering the College of Education after the freshman year should have completed the required work in physical education—5 credits for women and 3 credits for men.

6. Applicants for admission to the College of Education who do not fully meet all requirements may be referred to the admissions committee of the college for special consideration on an individual basis.

Admission requirements for specific programs in education—Because students enter the College of Education with varying amounts and kinds of educational background, and because there are some differences in the preparation needed for various courses of study in the college, a pattern of specific admission requirements has been established. The student who plans to enter the college should read carefully those requirements which pertain specifically to the course of his choice and to students with his kind of preparation.

Admission to four-year curricula—Students ordinarily are admitted to four-year curricula in education as beginning freshmen. These students meet the university and college requirements stated in the preceding section.

Students who have completed some college work and seek to enter one of the four-year curricula with advanced standing should present for entrance the junior college courses listed in the curriculum from which they are transferring, as well as a record of the courses they have taken and the grades received. Two years of college work representing a minimum of 90 quarter credits, carried with at least a C average, are required for admission as a junior.

Some college credits earned prior to admission into one of the four-year curricula in education may be accepted toward completion of re-

quired work if they have been in courses equivalent to those prescribed by the college; others may be counted as elective credits. Students who have completed some college work but who lack credit in a few prescribed courses may be admitted to the College of Education and make up their deficiencies after enrolment. Such deficiencies, however, may delay graduation or necessitate extra work in the Summer Session. Prescribed course requirements in the student's chosen curriculum must be satisfied before he is eligible to graduate.

Requirements for students with two years of work at the University of Minnesota—Students who have taken two years of work in the College of Science, Literature, and the Arts, or equivalent work in a liberal arts college or a junior college, and are preparing to teach *academic subjects in high school*, will be admitted to the College of Education upon satisfaction of the following requirements:

1. A minimum of 90 quarter credits, carried with an average of one honor point per credit, is necessary for admission to the college.

2. Men must have completed three quarters of physical education, and women four quarters, in the freshman and sophomore years.

3. All students in the College of Education are required to take a sequence of courses in personal health, community health, and school health. Some of these courses should be taken during the freshman and sophomore years. See No. 4 below.

4. Before entering the College of Education the student should complete, in addition to the requirements listed above, the group requirements of the Junior College of the College of Science, Literature, and the Arts. With slight modifications the student may choose either Plan I or Plan II. For most students Plan II is preferable. (See *Bulletin of the College of Science, Literature, and the Arts.*)

Modifications to meet College of Education entrance requirements are as follows:

a. In either plan six credits in psychology (Psy. 1-2, General Psychology) are required.

b. In either plan the student is advised to complete the personal health and community health course requirement. This includes in addition to P.H. 3, Personal Health (or equivalent), the course P.H. 4, Health Problems of the Community, 2 credits. Or both requirements may be met by taking P.H. 50, Public and Personal Health, 3 credits.

c. In Plan I the student may not use psychology (with laboratory) to meet the natural science requirement in Group D. The student must take a minimum of 9 credits in natural science exclusive of psychology and mathematics. The science courses in General Studies are recommended.

5. Within the total credits stipulated under No. 4, the student should take work in the fields of study in which he hopes to teach in high school, taking at least 15 credits in a major field with a C+ average, and at least 10 credits in each of two minor fields. The purpose of this requirement is to prepare the student for the advanced courses necessary to the completion of satisfactory teaching majors and minors.

6. Students with two years of college training who lack certain entrance requirements may be considered individually. If such a student is admitted, certain deficiencies may be made up after enrolment, and in other cases adjustments may be possible after consultation with the chairman of the Students' Work Committee.

7. Credit for courses taken in military science and tactics, and naval science may be counted toward graduation. These credits are electives, however, and may not be used to fulfill major or minor requirements.

8. A maximum of 27 credits is elective from courses in agriculture and home economics except in the special curricula of those fields.

Students from colleges outside the University—Students who transfer from other colleges with advanced standing but with less than two years of work and who are preparing for *high school* teaching will be requested to complete the freshman and sophomore requirements in the College of Science, Literature, and the Arts.

Students who have completed two full years of college work but lack the required number of credits or specific entrance requirements, such as language, science, or psychology, may register in the College of Education and make up deficiencies after admission. Such deficiencies, however, may delay graduation or necessitate extra summer work.

Students who transfer with three or more years of college work (maximum of 135 credits), including those who already hold the B.A. or B.S. degree, may enter the College of Education for work toward a degree and a teacher's certificate. *Such students cannot, however, complete the required work for degree and secondary school certificate in one year.* Because of the necessary sequence of professional courses, such students who enter in the fall take five quarters of work in the College of Education, three of which must be taken in the senior year. Equivalent courses are not available in the Summer Session. Transfer students who enter at the beginning of the winter quarter can complete their work for degree and certificate in winter and spring quarters of the junior year and the three quarters of the senior year, provided they are able to meet other requirements in that time.

Students from schools of nursing—Students who specialize in nursing education or a combined program in nursing education and public health nursing register in the College of Education for the last 45 credits of work. For a detailed statement of the program see the curricula in nursing education and public health nursing.

Students from teachers colleges—Graduates from the standard two-year course of the Minnesota state teachers colleges and other accredited teacher training institutions are admitted to the College of Education with 90 blanket credits. These credits are accepted in lieu of the Junior College requirements listed on pages 8-9 and 34-35, but a student in a specialized field will be held for all the work of his curriculum.

Students who transfer from the third or fourth year of the degree course offered in Minnesota teachers colleges will receive credit for any part of their work insofar as such work is equivalent to courses offered in the College of Education.

Teachers of experience who are unable to meet the regular requirements for admission may be permitted to take courses in the College of Education as unclassified students. In order to become candidates for a degree, however, they must be admitted as regular students.

Graduates of state teachers colleges will not be permitted to take for credit the courses in Freshman English, (Com. 1-2-3, Comp. 4-5-6, or Eng. A-B-C), or Psy. 1-2, General Psychology. Graduates of state teachers colleges should not take Ed. 71A-B-C without special permission.

REQUIREMENTS FOR GRADUATION

Students who complete the following requirements graduate from the College of Education with the bachelor of science degree and receive Minnesota teaching certificates appropriate to their fields of professional study.

Amount and quality of work—A total of 186 credits and 186 honor points, including the required courses in physical education, is needed for graduation.* During the junior and senior years an honor point ratio of 1.0 (grade average of C) for all courses except those in the major must be maintained. In the student's major subjects an honor point ratio of 1.5 (grade average of C+) is required.

Students registered in four-year programs must have an honor point average of 1.0 in all work of the freshman and sophomore years to be admitted to the work of the junior year, and an honor point average of 1.5 (C+) in the major.

All students are required to have an honor point average of 1.5 in the major field to be admitted to student teaching except in elementary education.

Professional requirements for teachers of secondary school subjects—The professional course requirements in the four-year curricula are outlined in the sections of this bulletin devoted to detailed descriptions of those curricula. The requirements listed below are for students with two years of college preparation who are enrolled in the two-year College of Education curricula *for teachers of secondary school subjects*.

In order to qualify for the Minnesota state high school standard certificate in secondary school subjects the student must be a graduate of the College of Education. To qualify for the degree and the certificate, students will meet the following requirements: †

1. One academic major. Some courses of study are outlined not for a one-subject major but for a broad field of specialization, such as language arts, natural science, and social studies.

2. One or more minors in academic or special fields. Majors and minors must be selected from the subjects commonly taught in high schools. Students should select majors and minors early in their college course and with regard to the demands of high schools. By careful selection of courses students may complete two or more minors, thus qualifying them to teach in several different fields. Major and minor requirements in each field are described in the section on College of Education curricula.

3. Professional courses totaling not less than 29 credits.

a. Required course—Ed. 55A-B, Introduction to Secondary School Teaching (10 cred.; prereq. Psy. 1-2). This course consists of work in educational psychology, high school organization, and curriculum and general methods.

b. Methods and student teaching. In addition, the student must complete a course in methods and teaching in his major field (11 cred.; prereq. Ed. 55A-B). This course includes general methods, special methods, and student teaching.

Methods and student teaching are combined in a one-year course beginning with the fall quarter of the senior year. Failure to register for this course for the fall quarter of the senior year

* In some specialized curricula the number of credits required is more than 186. The student should read carefully the credit requirements of the curriculum in which he is interested.

† 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.

will result in delay in graduation. All courses prerequisite to special methods and student teaching should have been completed by the end of the junior year. In addition to the special methods and student teaching course in the subject which the student wishes to teach, he must satisfy the requirements for a major or minor in that subject according to his curriculum. By the end of his junior year he should have made adequate preparation, particularly in his major teaching field, for successful student teaching in high school classes.

Application forms for student teaching should be secured at the beginning of the spring quarter of the junior year and submitted to the director of student teaching before the end of the second week. All arrangements should be made through the director of student teaching.

- c. History and philosophy of education. Satisfactory completion of one three-credit course in history and philosophy of education, The School and the Social Order (H.Ed. 180), is included in the professional requirements for graduation.
- d. Education electives. To complete the professional requirement of at least 29 quarter credits for the degree and the teacher's certificate the candidate will elect additional credits in conference with a faculty adviser. The following courses count as electives in education for students preparing for high school teaching: any course listed under General Courses or Secondary Education in the Departments of Curriculum and Instruction, Educational Administration, Educational Psychology, and History and Philosophy of Education; a methods course in the minor; Administration of Industrial Education (Ind. 105); Vocational Guidance (Ind. 110). Methods and other courses offered in the special subjects are sometimes approved by petition. All of these courses are described in Section III, Description of Courses.

Health education—All students in the College of Education except those in nursing education and speech pathology are required to take a sequence of courses in (a) personal health, (b) community health, and (c) school health. A minimum of 6 or 7 credits is required. Courses which may be taken to meet this requirement are as follows:

- a. P.H. 3, Personal Health, 2 credits; G.C. 10C, Human Biology, 3 credits; P.H. 50, Public and Personal Health, 3 credits—this course meets the requirements for both (a) and (b).
- b. P.H. 4, Health Problems of the Community, 2 credits; P.H. 50, Public and Personal Health, 3 credits—this course meets the requirements for both (a) and (b); P.H. 51, Community Hygiene, 3 credits.
- c. P.H. 59, Health of the School Child, 3 credits (P.H. 57, Health of Infant and Preschool Child in certain curricula). Students may secure advice about registering for the proper courses from their major advisers or from members of the Students' Work Committee.

Residence requirements—A minimum of 45 credits must be earned while in residence in the College of Education as a regular student. Of these, 30 credits must be earned in the senior year. *These are minimum residence requirements for graduation, and thus for a degree and teaching certificate.*

Correspondence courses and extension courses do not count as residence credits, excepting only General Extension courses offered in Minneapolis, St. Paul, or Duluth.

The required courses in education are arranged in a *sequence* for the junior and senior years and cannot be completed in less time. As a rule, these courses are taught in only one quarter each year and must be taken in regular sequence, beginning in the fall quarter. Students who do not enter the College of Education in the fall of the junior year usually are not able to complete the requirements of their curricula in two years.

Degrees and honors—Students who graduate from the College of Education receive the degree of bachelor of science. Those with outstanding grade records, at least a B average in student teaching, and a minimum of 45 credits completed in residence before the final quarter of the senior year will be considered for graduation with distinction or high distinction. These honors are not automatic, but are conferred upon favorable recommendation by the faculty. Application by the student is not necessary. Anyone entering the College of Education with a previously earned Bachelor's degree is not eligible for graduation with honors, since these awards apply only to students whose first four-year degree will be received from this college.

Students graduating from one of the five-year curricula in the College of Education receive the master of education degree.

ROTC

Reserve Officers Training Corps—Three reserve training programs are available to students in the College of Education as well as to students in other colleges of the University: (1) the program in Military Science and Tactics (ROTC), leading to a commission in the Army Officers Reserve Corps; (2) the program in Naval Science; and (3) the program in Air Science and Tactics (Air ROTC), leading to a commission in the Air Force Reserve. Credits earned in these programs may be applied as electives toward graduation. Interested students should arrange to enter the ROTC program at the beginning of the freshman year.

AWARDS AND SCHOLARSHIPS

Coffman Foundation Award—For graduate study in education, made each year to one or two senior students in the College of Education on the basis of scholarship, qualities of leadership, and promise of professional achievement.

Alice Pomeroy Scholarship—Awarded annually to a woman student in the college on the basis of need, character, and ability.

Bertha Weiskopf Memorial Scholarship—A scholarship of \$100 awarded annually to the student in the College of Education with the highest scholarship and competence in the field of intercultural education who is planning to teach or to do graduate work in that special field.

Students may secure information about these scholarships from the office of the dean of the College of Education, 204 Burton Hall. In addition many all-university scholarships and awards are open to students in the College of Education. Inquiry concerning them should be made at the Bureau of Student Loans and Scholarships, 211 Eddy Hall.

REQUIREMENTS FOR THE MASTER OF EDUCATION DEGREE

The professional degree, master of education (M.Ed.), is granted to students who satisfactorily complete prescribed five-year programs. Although students ordinarily register in these curricula at the beginning

of the freshman year, students who have already earned a Bachelor's degree in one of these fields may qualify for the master of education degree by completing all the requirements of the fifth year, providing his undergraduate training in the major is equivalent to that required in the College of Education.

The general requirements for this degree include: (1) 90 quarter credits in academic fields; (2) a teaching minor in an academic field; (3) a broad major field specialization, usually about 90 quarter credits; (4) advanced professional training, including one quarter of internship under a master teacher. Forty-five credits beyond the Bachelor's degree must be earned, and the total number of credits earned in the college must include at least 45 earned in courses numbered above 100. In the course work of the fifth year a B average (2 honor points per credit) is required, as are final written and oral comprehensive examinations and demonstration of teaching competence. A health examination must be taken within one year of the date the degree is to be granted.

Because teacher-certification requirements are being raised, with many states and cities requiring a Master's degree for supervisory or special work and for high school teaching, students are urged to take advantage of the five-year programs whenever possible.

GRADUATE STUDY IN EDUCATION

Graduate study in education, leading to the master of arts and the doctor of philosophy degrees, may be pursued in the Graduate School. Application for admission for an M.A. or Ph.D. program must be made to the Graduate School office. Graduate courses may be taken during the regular academic year and during the Summer Session. Students holding the Bachelor's degree, attending summers only, may ordinarily complete the work for the Master's degree in three or four full summer sessions.

Note—The following section is a summary of the graduate program and requirements. For a complete description of graduate work in education, and for a full statement of regulations, consult the *Bulletin of the Graduate School*.

Prerequisites for graduate work in education—Students who intend to pursue graduate study in education should make sure that their undergraduate programs include a minimum of 6 quarter credits in psychology, plus an additional total of not less than 18 quarter credits of undergraduate work in education, including Ed. 55 A-B or Ed. 71 A-B-C or the equivalent.

Language requirements—Candidates for the Master's degree with a major in any field of education are exempt from the foreign language requirement. Candidates for the Doctor's degree in education may elect to (a) demonstrate reading proficiency in two foreign languages related to the professional literature in their fields, or (b) demonstrate reading proficiency in one foreign language and substitute for the second language an approved program of study in a field outside of education that is related to their major interest. Consult the *Bulletin of the Graduate School* for specific requirements.

Candidacy for a degree—Students who have met the requirements for admission to the Graduate School, and who satisfy the prerequisites for the courses they elect to take, may register for graduate courses in education. *They are not candidates for a degree*, however, until their formal application for candidacy has been accepted. This application is not made until the student has completed part of his program of graduate

study. The student's major adviser should be consulted about candidacy for a degree.

Majors and minors in graduate study—For the master of arts degree, the major (under Plan A with thesis) or the field of concentration (under Plan B without thesis) may be in any one of the following fields:

Agricultural education	History and philosophy of education
Curriculum and instruction	Home economics education
Education	Industrial education
Educational administration	Physical education
Educational psychology	

Minor work for the Master's degree under Plan A (or related field work under Plan B) may be done in any of the above fields not included in the major, or in any other field of graduate study offered at the University of Minnesota which is obviously related to the student's major interest.

For the doctor of philosophy degree (Ph.D.) major work is offered in the following fields:

Education	Educational psychology
Educational administration	

Minor work for the Doctor's degree may be chosen from any of the fields listed as majors for the Master's degree, or from any other field of graduate study offered at the University which is obviously related to the candidate's major interest.

Graduate courses and curricula in education—Certain curricula in the College of Education, such as educational administration, are offered only at the graduate level. Education courses that carry graduate credit are to be found in the general list of course descriptions on pages 87 to 141. Graduate credit may be earned in courses with numbers above 100.

STUDENT PERSONNEL SERVICES

Successful preparation of teachers for professional service in modern society involves more than lectures and examinations. It requires also a broad range of student experiences, observation, guidance, certification, placement, and many other factors. The student should become acquainted as soon as he can with the various facilities and services of the college which have been set up for his and the profession's benefit. This section describes briefly the services available to students in the College of Education.

Information—The central information desk in the college office, 204 Burton Hall, is maintained for the convenience of students and others who may have inquiries about college procedures and programs. The information desk is an excellent "first stop" for any student seeking direction or information.

Student Personnel Office—Students in the college who find that they need special information and experienced help in making the proper choice of professional goals, or in meeting more personal problems, have available to them the trained counselors and special facilities of the Personnel Office. These services are available also to students not in the College of Education who are considering a career in teaching. Appointments may be made at the Student Personnel desk in 204 Burton Hall.

In addition to the personnel services available in the College of Education, the student is invited to use the specialized services provided by the University for all students. These university services include the

orientation program for new students, the Student Counseling Bureau, the Student Activities Bureau, the Student Housing Bureau, the adviser for foreign students, the Bureau of Veterans' Affairs, the Speech and Hearing Clinic, the Bureau of Student Loans and Scholarships, the Student Employment Bureau, and the Students' Health Service. Any student seeking one of these special university services will find the counselors in the Student Personnel Office of the college helpful in making arrangements.

Faculty advisers—Every student in the College of Education has as an adviser a member of the faculty who teaches in his major field. This adviser's job is to counsel the student concerning his professional preparation for the field of his major interest, to help with the student's registration each quarter, and to serve as a general adviser on academic problems. The student may select as an adviser any one of the faculty members listed in the section of this bulletin that describes his major field. The faculty adviser provides the student's most direct and personal contact with the teaching field for which he is preparing. It is always to the student's advantage to see the same adviser each quarter and to make a point of knowing him well.

Students' Work Committee—Any student who encounters difficulties in adjusting his program to his individual needs or background should seek the assistance of the Students' Work Committee, 204 Burton Hall. The student who has trouble scheduling required courses, or has had equivalent courses here or elsewhere, or has a pattern of work that does not fit in with stated requirements, or for some reason cannot take certain courses, is urged to consult a member of the committee for help in working out his problem.

Student orientation—An orientation program for all new students is offered shortly before the opening of each quarter by the University. By means of *The Moccasin* (new students' handbook), newspapers, and the radio, new students will be further informed of this program. It is highly desirable for every new student to come to the campus a few days before classes begin to attend these introductory activities, to complete his first registration, to meet other new students, and to explore some of the opportunities available to university students. We urge that students read *The Moccasin* thoroughly before arrival. It has been designed to answer preliminary questions and to picture briefly student life at the University of Minnesota.

Student activities—The several student organizations in the College of Education maintain a joint office in 214 Burton Hall, where a student member is nearly always on hand to answer questions concerning undergraduate activities. Students interested in joining any of the education organizations or desirous of information about them are invited to call at the activities office.

Students in the College of Education are also eligible, of course, to take part in the broad range of all-university student activities. An inquiry to the Student Activities Bureau in Eddy Hall, directly or through the Student Personnel Office of the College of Education, will provide information on the interesting variety of student activities available at the University.

Teacher placement service—The College of Education provides placement service for its qualified students and graduates, helping them to secure the kinds of positions they desire. All graduating seniors on the Minneapolis Campus register and file their credentials with the Bureau of Recommendations, 210 Burton Hall, during the fall quarter of the

senior year. Majors in home economics education and agricultural education register with their respective departments. The fee is \$4.50 and entitles the student to one year of placement service. This service may be renewed for any year by the payment of the same fee. Students should consult the director of the bureau for information concerning placement, current demands in the teaching profession, best subject-matter combinations, and probabilities of securing a position. Several group conferences are arranged for seniors each year.

A graduate who does not desire a position at the time of graduation should so indicate when he files his credentials in the Bureau of Recommendations. He will then receive service without charge during any year in which he may indicate a need for such service. Because of probable future use of records it is desirable to have letters of recommendation forwarded to the bureau from employers of each position in order that records may be kept up to date. For graduate students and nursing education seniors registration in the Bureau of Recommendations is optional but highly desirable.

For more detailed description of the purposes and functions of the Bureau of Recommendations, see the paragraphs below.

COLLEGE OF EDUCATION FACILITIES AND SERVICES

The College of Education includes a number of divisions and special enterprises established to further its work in the preparation of teachers, to extend the boundaries of professional knowledge in education, and to render service to education throughout the state and nation.

Laboratory schools—Two laboratory schools and a demonstration school are affiliated with the College of Education. Many senior students do their directed teaching in the laboratory schools, others teach in the public schools of Minneapolis, St. Paul, and nearby communities.

1. University High School is a six-year secondary school maintained by the college on the Minneapolis Campus to provide opportunity for observation, demonstration, experimentation, and research in secondary education.

2. University Elementary School, maintained by the College of Education on the campus, provides demonstration and experimental facilities in nursery school, kindergarten, and the elementary grades.

3. Affiliated with the college for demonstration work in the elementary grades is Tuttle School of Minneapolis, located conveniently near the campus.

Bureau of Recommendations—Providing the necessary link between graduates of the College of Education and employment opportunities in the various teaching fields, the Bureau of Recommendations collects and preserves the credentials of all graduates. There are very few graduates of the College of Education who do not want at some time to use placement records. Requests for records of graduates come from all states in the union, often long after students have left the campus. Only while the student is on the campus can adequate recommendations from faculty and supervisors be secured. The Bureau of Recommendations is the only place on the campus where complete descriptions of teaching ability and personal fitness of College of Education graduates can be assembled. These records are never destroyed and will be sent to prospective employers on request of the teacher or employer.

Frequent uses of the bureau's records are: (1) for placement in teaching and other school positions; (2) for shifts of position by experienced teachers who find circumstances require change of locality; (3) for se-

curing summer employment; (4) in connection with applications for appointment as exchange teachers or for overseas teaching during leaves of absence; (5) for part- or full-time employment in subsequent years by those who do not at first expect to teach; (6) for replying to inquiries of employers in fields other than teaching.

Bureau of Educational Research—Established by the College of Education as a central agency for investigating teaching and curriculum problems, the bureau serves five major purposes: (1) to facilitate research and field studies by members of the college faculty; (2) to contribute to the profession as a whole through study of fundamental and persistent problems in education; (3) to provide Minnesota educators a central office to which significant educational problems may be referred; (4) to provide graduate students apprentice training in techniques and execution of research; and (5) to cooperate in the study of educational problems with other recognized state and national agencies. The resources of the bureau, in addition to the research specialist director and several research assistants, include a pool of statistical and clerical workers and an extensive research library. Bureau offices are in 211 Burton Hall.

Curriculum Laboratory—To facilitate research and developmental study in the area of school curriculum, the College of Education maintains the Curriculum Laboratory. With quarters and an extensive library on the seminar floor of the Library, the facilities and staff of the laboratory are used by graduate students, by various workshop groups, and by committees of teachers and school administrators working on curriculum problems. The resources of the Curriculum Laboratory not only are available to students at the University but also are intended for use by all teachers and schools in the state.

Child Study Center—The Child Study Center, with offices and clinical quarters in Pattee Hall, serves three principal purposes: (1) to train teachers and school specialists in diagnosis and remediation of special problems of children; (2) to encourage and conduct research in child development; and (3) to provide special assistance for children who have educational problems due to academic, physical, mental, or emotional handicaps. Although the facilities of the center are used regularly for observation by teachers in service and students in various education classes, the main work of the center is clinical diagnosis of the problems of individual children and recommendation of remedial procedures. The Child Study Center is in a large measure a self-sustaining service center, operated for the benefit of Minnesota parents, teachers, and children. Teachers and parents concerned with obtaining diagnostic and remedial help for particular children apply to the director of the center for appointments.

Bureau of Field Studies and Surveys—The Bureau of Field Studies and Surveys is maintained by the college for research and service in school problems of instruction, administration, finance, and physical plant. Essentially a service division operated for the benefit of the schools of Minnesota, the technical staff of the bureau cooperates with local school districts in attaining more efficient organization, in planning building expansions, and in solving numerous other administrative and instructional problems. The offices of the director of the bureau and of the technical staff are in 208 Burton Hall.

Publications—In addition to the numerous publications issued privately by its faculty members, the College of Education sponsors two series of monograph publications in education. These series, entitled

Modern School Practices and Studies in Education, distributed by the University of Minnesota Press, include research monographs on curriculum development, psychology of learning, methods of instruction, guidance, and studies in other areas of education. Several new titles representing part of the research effort of the college faculty are added to the series each year.

PROCEDURES AND PRACTICES IN THE COLLEGE OF EDUCATION

Every college has certain established procedures regulating admission to and progress through its programs. These procedures in the College of Education are designed primarily to make most efficient use of the college facilities and to provide convenient guideposts for the student in his preparation for the teaching profession. Every student in the college should be thoroughly familiar with them. These procedures are described generally in the following paragraphs; more detailed information and help on specific points may be secured at the information desk or the Personnel Office in 204 Burton Hall.

Admission procedures—For each of three principal groups of students entering the College of Education: (1) those without previous college training, (2) those transferring from another division of the University, and (3) those transferring with credits earned at a college outside the University—there is a particular admission procedure.

1. Students without previous college training who wish to apply for admission as freshmen to one of the four-year curricula in the College of Education follow the same application procedure as applicants for admission to other colleges in the University. This procedure is given in detail in the *Bulletin of General Information*. New students are expected to attend the short orientation and registration period, for which the University will send full instructions. During this orientation program the student spends the entire period on the campus—registering, meeting his adviser, taking tests, talking with people with whom he may be associated, and becoming familiar with university organization, activities, and procedures. This orientation period is the official time for registration of new students.

The mature young person who has not completed a high school education but believes he has the ability to pursue college studies may apply for admission to the University by examination. Any applicant in this group should read carefully the *Bulletin of General Information*.

2. Students applying for transfer to the College of Education from other divisions of the University should apply at Window 16 of the Office of Admissions and Records, where they will receive printed instructions.

3. Students applying for admission to the College of Education with transfer of college credits earned at institutions other than the University should write to the university Office of Admissions and Records for application materials and have a transcript of previous college credits sent to the dean of admissions and records by the former college. Students will be notified of acceptance and receive instructions with regard to required tests and admission interview. Students who enter with less than two full years of work are expected to attend the orientation period.

4. Persons of adult age and experience who desire to take specific courses in the College of Education but are not candidates for a degree should apply at the Office of Admissions and Records for admission forms in the "adult special" status. An adult special student who wishes to

become a candidate for a degree must complete the regular college admission procedure. This admission procedure should be completed as soon as the student decides to work for a degree and in no case later than the beginning of the senior year.

Registration procedures—Dates for registration in the College of Education, and the specific procedures to be followed, are published each quarter in the Official Daily Bulletin contained in the *Minnesota Daily*. Students registering in the College of Education for the first time, or returning after a period of nonattendance, should present their admission certificates and obtain registration materials and instructions at the Office of Admissions and Records. Students who have been registered in the College of Education during the previous quarter will receive through the university post office a registration permit card, which they will exchange for registration materials at the college office in Burton Hall.

Change of registration—The student who finds it necessary to change one or two courses in his program at the beginning of a quarter should obtain a change of registration form ("cancel-add slip") at the information desk in 204 Burton Hall. The student may add a course or change to a different course during the first week of the quarter. Prior to the end of the sixth week in a quarter the student may cancel registration in any course. After the sixth week, cancellation of a course in which the student is failing will result in a grade of F in the course. Cancel-add slips must be signed by the major adviser or a member of the Students' Work Committee.

Change of major—The student who has valid reasons for wishing to change his major from one field to another should see a counselor in the Student Personnel Office, 204 Burton Hall.

Clearance for admission to the junior year—Students who have been enrolled in the College of Education for the freshman and sophomore years obtain a clearance form at the information desk, 204 Burton Hall, during winter quarter of the sophomore year and complete the required physical examination and psychological and speech tests according to printed instructions.

Senior balance sheet—The senior balance sheet, issued by the Office of Admissions and Records, lists the required courses the student has completed, his total number of earned credits, his honor point ratio, and the deficiencies that must be removed before the student may graduate.

The student should file an application for a degree at the Information Window, Office of Admissions and Records, during the *spring quarter* of the junior year, or one full year before he expects to graduate. Following this application, the senior balance sheet is made out and mailed to the student, usually during the fall quarter of the senior year. The balance sheet is useful to the student and his adviser in planning the remainder of his program.

Senior physical examination—Every senior student in the College of Education must take a physical examination within one year of the date the degree is to be granted. It is the student's responsibility to make an appointment at the University Students' Health Service at some time during his senior year and to complete the examination. Results of the examination will be forwarded automatically to the Office of Admissions and Records by the Health Service.

Application and registration for student teaching—Student teaching is required for two or three quarters, depending upon the major or field. Students may enter student teaching in the special fields (Art Education,

Business and Distributive Education, Industrial Education, Music Education, and Physical Education for Men and for Women) in the third quarter of the junior year. In the secondary academic fields they may enter only in the fall quarter of the senior year. In elementary education entrance may occur during the first, second, or third quarter of the senior year depending upon the curriculum pursued. Students should learn their department's specific requirements and plan their programs well in advance to provide for prerequisites, and for the necessary time for student teaching. In some departments students may enter student teaching without reference to a regular sequence for completing it, whereas in the academic secondary fields it is necessary that the student enter upon student teaching in the fall quarter and continue throughout the year.

Students in Agricultural Education, Home Economics Education, and Nursing Education consult advisers in their major departments, who arrange their student teaching. All other students must pick up applications for student teaching during the *first week* of the quarter preceding that in which they expect to have an assignment; and they must file completed applications with the director of student teaching in the second week of the quarter. Applications and instructions are available in the college office and in the office of student teaching. Inasmuch as the University uses the facilities of public schools in Minneapolis, St. Paul, and some suburbs as well as those of its own campus laboratory schools, it is imperative that the director of student teaching have applications from the students, approved by their advisers, at least one quarter in advance of beginning their student teaching assignments. Students not in the University during the spring quarter must write to or consult with the director of student teaching by June 1 regarding admission to student teaching in the fall quarter. Regular student teaching is not offered in the Summer Session.

Assignment to a classroom place for student teaching is subject to the approval of the director of student teaching, and involves the following "clearances": (1) completion of a satisfactory pattern of courses in the major field, and the recommendation of the major adviser; (2) completion of Ed. 55A-B for secondary education or Ed. 71A-B-C for elementary education, and the recommendation of the laboratory instructor; (3) a C+ average (1.5 honor points) per credit in the major, except in elementary education, where a C (1.0) average in all work taken is required; (4) completion of the College of Education psychological test battery given at the junior year level; (5) satisfactory report from the Students' Health Service on the physical examination required of all students for entrance to the junior year and of students who enter the college with advanced standing; (6) satisfactory rating on the Speech and Hearing Clinic tests included in the requirements for junior standing.

A student may be required to cancel his registration in student teaching if he fails to meet the requirements or if his work is unsatisfactory. The student who is required to cancel his registration in student teaching during the second or third quarter may be allowed to graduate without a teacher's certificate provided all other requirements have been met.

Unsatisfactory work—Continued study in the College of Education depends upon the student's reasonable success in his work and upon his progress toward graduation. Any student who is not making satisfactory progress in the curriculum in which he is registered may be placed on probation for one quarter by the Students' Work Committee. Unsatisfactory work in the College of Education is defined as follows:

1. Grades of D or F in 50 per cent of the work undertaken in any one quarter.

2. An average less than C (1 honor point for each credit taken) for all credits earned in any one year, and an average of less than C+ (1.5 honor points per credit) in courses in the major subject.

Students who fail to make satisfactory grades in their work after being on probation for one quarter are in danger of being dropped.

Teacher certification—About two months before a student graduates from the College of Education he is expected to call at the information desk in the college office for application materials for the teacher's certificate. He fills out the application form in the college office and leaves it there. At the same time he sends the one dollar certification fee to the State Department of Education with the form provided. All other details are handled by the college, and the qualified graduate receives the appropriate certificate to teach in the area of his preparation in the public schools of Minnesota. Seniors graduating in the spring should watch for notice that application forms are ready; notice is given both by way of campus mail and in the Official Daily Bulletin.

Education courses in the General Extension Division—Evening and correspondence study courses in education are offered through the General Extension Division (see the *Bulletin of the General Extension Division*). Teachers and others not regularly enrolled in the College of Education who take these courses may later apply the credits earned in certain of them toward a degree if they become regular students in the college. Students regularly enrolled in the College of Education must file a petition with the Students' Work Committee for permission to take for credit courses offered by the General Extension Division.

Section II. Curricula

AGRICULTURAL EDUCATION

Major adviser, Associate Professor Milo J. Peterson

Students who have completed the required work of the freshman and sophomore years of the Agricultural Education Curriculum of the College of Agriculture, Forestry, Home Economics, and Veterinary Medicine, or the equivalent from the Technical Agriculture Curriculum, may qualify as agriculture instructors in the public schools, as county extension agricultural agents, and for related positions. Such students complete the junior and senior years in a combined curriculum of the College of Education and the College of Agriculture, Forestry, Home Economics, and Veterinary Medicine. This curriculum leads to the degree of bachelor of science. By completing a fifth year in the combined five-year curriculum with the College of Education, they may receive the degree of master of education.

General Requirements

1. The student must complete the general requirements for all students in the College of Agriculture, Forestry, Home Economics, and Veterinary Medicine.

2. This curriculum requires 204 credits for graduation. Credits are distributed in the following areas: agricultural economics, agricultural engineering and mathematics, agronomy, animal husbandry, bacteriology, botany, chemistry, dairy husbandry, education and agricultural education, entomology, horticulture, plant pathology, poultry husbandry, psychology, public health, rhetoric, rural sociology, soils, veterinary medicine, and zoology.

Students are encouraged to investigate the opportunities in the ROTC program. Credits earned in ROTC may be used as electives in this curriculum.

3. Entrance to this curriculum in the junior year requires the previous completion of the following courses: Agr.Econ. 1 and 2, Orient. 1, P.H. 3, Agr.Ed. 1 and college mathematics and physics. However, students presenting a year of high school mathematics beyond the first year in algebra and a year of high school physics are exempted from the last two requirements.

4. An average honor point ratio of 1.5 is required in 18 of the following courses: Agr.Econ. 102, 103, and an elected course; Agr.Eng. 7, 41, 54, 55, 60, 67; Agron. 21, 23, 31; An.Husb. 56, 57, 112 or 113; Poult.Husb. 1 and an elected course; Dy.Husb. 1 and two elected courses; Ent. 5; Hort. 1 and For. 10 or an elected course in horticulture; Pl.Path. 1, 3; Soils 4, 5, 103; Vet.Med. 52. For description of courses see *Bulletin of the College of Agriculture, Forestry, Home Economics, and Veterinary Medicine*.

5. Certification requirements for teaching vocational agriculture in Minnesota include a provision that applicants must have lived on a farm until the age of sixteen or have had two full years of farm experience after the age of sixteen.

FRESHMAN YEAR

COURSE No.	TITLE	CREDITS
Agr.Ed. 1	Introduction to Agricultural Education	1
Agr.Eng. 23	General Physics (not required of students who present a year of high school physics)	5
Agr.Eng. 7*	Farm Buildings	4
Agron. 1†	General Farm Crops	3
An.Husb. 1	Livestock Production	4
Bot. 1, 2	General Botany	6
Dy.Husb. 1	Elements of Dairying	3
Hort. 1	General Horticulture	3
Inorg.Chem. 1-2 or 4-5	General Inorganic Chemistry	8
Math. 1,† or	Higher Algebra	5
Agr.Eng. 11	Applied Mathematics }	
Orient. 1	Freshman Orientation Lectures	5
Rhet. 1, 2, 3	Rhetoric I, II, III	9

SOPHOMORE YEAR

Agr.Econ. 1, 2	Principles of Economics I, II	8
Agr.Eng. 41	Metal Work	3
Agron. 23	Forage Crops	4
Agron. 31	Principles of Genetics	4
Bact. 53	General Bacteriology	5
Pl.Path. 3*	Weeds	3
Poult.Husb. 1	Poultry Production	4
P.H. 3	Personal Health	2
Soc. 14	Rural Sociology	3
Soils 4	Soils	3
Soils 5*	Soils Management	3
Vet.Med. 52*	Hygiene of Domestic Animals	3
Zool. 14-15	General Zoology	6

JUNIOR YEAR

Students in Agricultural Education will be registered, beginning with the junior year, in both the College of Education and the College of Agriculture, Forestry, Home Economics, and Veterinary Medicine.

Special attention of every student is called to the faculty regulations for classification as a junior. Junior classification requires the completion of at least 90 credits with an honor point ratio of 1.0 or higher.

COURSE No.	TITLE	CREDITS
Freshman-sophomore courses not completed		
Agr.Ed. 54, or	Rural Education and Community Leadership }	2 or 3
Agr.Ed. 56	Rural Youth Leadership }	
Agr.Ed. 81	Teaching Agriculture	3
Agr.Ed. 82	Methods in Teaching Agriculture	3
Agr.Eng. 55	Electricity in Agriculture	2
Agron. 21	Grain Crops	4
An.Husb. 56	Livestock Feeding	3
An.Husb. 57, or	Livestock Feeding }	3
Dy.Husb. 103	Dairy Stock Feeding }	
Dy.Husb. 52	Dairy Herd Management	2
Dy.Husb. 101	Milk Production	5
Ed. 55B	Introduction to Secondary School Teaching	5
Pl.Path. 1	Plant Pathology	5
Psy. A	Elementary Psychology	5

* Elective courses for students taking R.O.T.C.

† May be omitted by students who took vocational agriculture in high school, provided substitutions will be taken.

‡ Students will be exempt from Math. 1 who pass an exemption test given by the Department of Mathematics. Students presenting a year of high school mathematics beyond the first course in algebra are exempt.

SENIOR YEAR

COURSE No.	TITLE	CREDITS
Agr.Econ. 80	Farm Accounting	3
Agr.Econ. 102	Farm Organization	3
Agr.Econ. 103	Farm Operation	3
Agr.Ed. 91	Supervised Teaching Experience	6
Agr.Ed. 101	Young Farmer Education in Agriculture	2
Agr.Ed. 102	Adult Education in Agriculture	2
Agr.Ed. 103	Facilities and Materials	3
Agr.Ed. 104	Planning Programs	2
Agr.Eng. 54	Farm Power and Machinery	4
Agr.Eng. 60	Introduction to Soil and Water Control	3
Agr.Eng. 67	Rural Sanitation and Water Supply	3
An.Husb. 112, or	Animal Breeding }	3
An.Husb. 113	Livestock Management }	
Ent. 5	Economic Entomology	5
For. 10	Farm Forestry	3
Poult.Husb. 52	Poultry Judging	3
Rhet. 22	Public Speaking	3
Rhet. 51	Exposition	3

Recommended Electives

Electives to meet area requirements for graduation may be chosen from the following:

Advanced ROTC courses	History and Philosophy of Education: 180
Agricultural Economics: 8, 40, 50, 144	Horticulture: 6, 21, 22, 32, 135
Agronomy: 22, 133	Poultry Husbandry: 153
Animal Husbandry: 8, 9, 54	Agricultural Journalism: 53
Dairy Husbandry: 3, 9, 52, 101, 104	Sociology: 161
Educational Psychology: 120, 133	Soils: 111
Forestry: 10	

Fifth Year Leading to the Master of Education Degree

The College of Education and the College of Agriculture, Forestry, Home Economics, and Veterinary Medicine will award the master of education degree (M.Ed.) 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. In addition to the general requirements for the M.Ed. degree (page 12), the specific requirements as applied to agricultural education are as follows:

1. A total of 249 credits or 45 credits beyond the requirements for a Bachelor's degree in agricultural education.
2. In addition to the period of observation and practice teaching required for graduates in the four-year curriculum, a period of internship will be required for which a maximum of 8 credits will be given.
3. The distribution of credits for the fifth year will include:
 - a. Agricultural education: 12-15 credits, of which not more than 6 credits may be in problems courses.
 - b. Education other than agricultural education: 11-15 credits.
 - c. Technical agriculture and areas other than those listed above: 15-22 credits.

Note—Undergraduate students in agricultural education who expect to qualify for the M.Ed. degree should confer with their advisers by the beginning of the junior year in order that the work of the junior, senior, and fifth years may be coordinated to the best advantage.

Minor in Agriculture for Elementary School Teachers

A minor in agriculture is open to students in the elementary education field. It may be taken by any student following Curriculum IA, IB,

IIA, or IIB in elementary education (pages 34-41). The following courses are recommended, but others may be chosen with the consent of the adviser.

A minimum of 18 credits selected from the following:

COURSE No.	TITLE	CREDITS
Agr.Ed. 54, and/or	Rural Education and Community Leadership }	2 or 5
Agr.Ed. 56	Rural Youth Leadership }	
Agron. 1	General Farm Crops	3
An.Husb. 1	Livestock Production	4
Hort. 1, or	General Horticulture }	
Hort. 56, or	Plant Propagation }	3
Hort. 32	Vegetable Growing }	
Dy.Husb. 1	Elements of Dairying	3
For. 10	Farm Forestry	3

ART EDUCATION

Major advisers, Professor Clifton Gayne, Jr.; Assistant Professor Reid Hastie; Instructor Mildred Page

For talented students interested in careers in art education and for those who wish to combine creative art careers with teaching, the choice of many outstanding artists, the art education curriculum offers the following:

1. A balanced general education.
2. A comprehensive basic training in art.
3. An opportunity to specialize in the area of art most interesting to the candidate. A wide choice of subjects is available for meeting requirements and for electives.
4. On the successful completion of the four-year curriculum, the bachelor of science degree is granted, and the "high school standard special" certificate is awarded by the State Department of Education for teaching art in elementary and high schools, and for the variety of educational positions for which graduates are in demand.
5. On successful completion of the five-year curriculum, the master of education degree and the advanced teaching certificate are granted in evidence of the broader understanding and increased skill in those areas chosen for specialization.

Emphasis of the department—Art education is "art for all," to enrich lives through our educational systems. Preparation for adult needs, although important, is not enough. Schools must provide experiences of immediate interest and of significance to cultural development. Non-verbal techniques are at least as essential in education as more abstract knowledge. Our public schools, as they become more community minded, are assuming the role of art centers for a democratic society. Art educators require training for leadership in developing art programs with roots in the community. Elementary teachers and administrators require opportunities to develop broad cultural interests and skills worthy of educators of vision because the elementary school provides the only channel through which art may reach the majority of individuals in our society.

The Department of Art Education serves specialists and non-specialists alike, to the end that art may function more effectively in all educational programs through courses designed specifically for that purpose. The department coordinates the varied facilities of the University available for art education training through program planning and advice for education majors at both undergraduate and graduate levels.

Requirements for the Major in Art Education

1. Art education courses:

COURSE No.	TITLE	CREDITS
ArtEd. 14	Introduction to Art Education	2
ArtEd. 56, 57, 58	Basic Principles and Experience in Art Education	15
ArtEd. 86, 87, 88	Student Teaching and Supervision of Art	6
ArtEd. 86A, 87A, 88A	The Teaching and Supervision of Art	6
Total		29

2. Art and related courses:

Art History and Theory	6
Design and Its Application	28
Drawing, Painting, Sculpture, and Printing	12

Minimum total 46

3. A teaching minor fulfilling the requirements of the department involved.

4. Professional education courses:

Ed. 55A-55B	Introduction to Secondary School Teaching	10
H.Ed. 180	The School and the Social Order	3
	Methods in the minor	3 or 4
	Education electives	2 or 3

Total 18 or 19

5. General education courses:

Com. 1-2-3	Communication (or Comp. 4-5-6, Freshman Composition, or Eng. A-B-C, Freshman English, or exemption)	9-15
	Additional courses in writing or literature	3-9
Hum. 1-2-3, or Hist. 1-2-3	Humanities in the Modern World } Civilization of the Modern World }	9 or 15
Soc. 1	Introduction to Sociology	5
Psy. 1-2	General Psychology	6
	Physical Education	3 or 5
P.H. 59	Health of the School Child (and prerequisite courses. See page 11	6 or 7

6. Electives to complete a total of 186 credits, selected from the sciences, languages, English, speech, general studies, social studies, etc. Recommended: Continuation of a language begun in high school; speech arts for use in teaching and in play production; courses in philosophy, history, sociology, and psychology; courses in sports and the dance; courses for the appreciation of music, literary classics, and the stage. Attendance at concerts, exhibitions, and plays is urged as a part of art education. Available electives may be gained profitably in the various art courses beyond the minimal requirement, in a minor, or in an academic field.

7. Quality standard—An average of C, honor point average of 1.0, in the minor and all courses outside the major; a C+ or honor point average of 1.5 in the major.

Recommended Program for the Major in Art Education

FRESHMAN AND SOPHOMORE YEARS

Art and art education courses:

ArtEd. 14	Introduction to Art Education	2
Art 1, 2	Introduction to Art	7
Art 23, 24	Drawing and Design I	10
Art 40	Sculpture I	3
Art 10	Photography	3
Sp. 34	Stagecraft	3
Courses to meet the general education requirement under 5 above, and courses in minor		
General electives		
Courses in Public Health		
Physical Education		

JUNIOR AND SENIOR YEARS

COURSE No.	TITLE	CREDITS
Art 60, 61	Drawing and Painting II	6
Art 87	Weaving	3
Art 90	Printmaking	3
Art 93	Ceramics Processes	3
ArtEd. 56, 57, 58	Basic Principles and Experience in Art Education	15
ArtEd. 86, 87, 88	Student Teaching and Supervision of Art	6
ArtEd. 86A, 87A, 88A	The Teaching and Supervision of Art	6
Ed. 55A-55B	Introduction to Secondary School Teaching	10
H.Ed. 180	The School and the Social Order	3
	Methods in the Minor	3 or 4
	Education electives	2 or 3
P.H. 59	Health of the School Child (and P.H. 50, Public and Personal Health, if requirements were not met in first two years)	3
	Courses to complete minor	
	Electives in art	
	General electives	
Total	186

*Requirements for the Minor in Art Education***Plan 1. For elementary school teachers, 27 credits:**

ArtEd. 17, 18, 19	Survey of Art in Life and Education	9
ArtEd. 84	Teaching of Art in the Elementary School	3
Art 23	Drawing and Design	5
	Electives	10

Plan 2. For secondary school teachers, 28 credits:

ArtEd. 14	Introduction to Art Education	2
ArtEd. 56, 57	Basic Principles and Experience in Art Education	10
ArtEd. 87A	The Teaching and Supervision of Art	2
Art 1	Introduction to Art	4
Art 23	Drawing and Design	5
	Electives	5

Fifth Year Leading to the Master of Education Degree

A written application for admission to the fifth-year program must be presented to the Department of Art Education on forms available in the departmental office. This should be done to establish tentative candidacy before registration in any courses which are to be counted for credit at the graduate level. After 12 credits have been completed in graduate level courses with a B average, application may be made for approval of a total program.

The student must meet all the general requirements for the M.Ed. degree as described on page 12. In addition he must meet the special requirements listed below:

1. Academic credits in minor or related fields 12
2. Art education major, including advanced courses in art 24
3. Education courses 9
4. Satisfactory demonstration of teaching competence.

For graduates of other institutions—The program for the fifth year leading to the M.Ed. degree is open to students from other institutions who have had an undergraduate major in art or in art education representing training equivalent to that offered at the University of Minnesota. In some cases it may be necessary for the student to take prerequisite courses at the undergraduate level. Undergraduate work in education

must be equivalent to that required in the four-year program. The special requirements are as follows:

1. Art, art education and related fields 24
2. Courses in academic fields. Of these Sociology 106, City Planning (same as Architecture 104, Economics 111, and Political Science 123) is highly recommended 9
3. Education courses 12
4. Satisfactory demonstration of teaching competence.

BUSINESS AND DISTRIBUTIVE EDUCATION

Major Advisers, Professor Ray G. Price and Associate Professor Warren G. Meyer

The following curricula are designed to prepare teachers of business subjects in secondary schools. Completion of one of these curricula leads to the bachelor of science degree. By a careful selection of electives it is possible to secure also one or two minors in academic subjects or to meet the requirements of both office and distributive education curricula. Students should confer with major advisers as early as possible in order to plan their programs effectively.

The first two years' work is taken in the College of Science, Literature, and the Arts, and includes basic courses in English, psychology, sociology, economics, geography, and business administration. The last two years' work is taken in the College of Education.

Students who have had high school courses or experience in book-keeping may be exempt from Econ. 24, and admitted to Econ. 25, by passing a placement test. 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 are admitted to Econ. 34. Students who have had two years of high school shorthand are admitted to Econ. 39.

Students preparing for vocational certification may be exempt from part of B.A. 183, if they have had practical business experience. The extent of this exemption will depend on the quality, amount, and recency of such experience.

Basic Course Requirements

The following courses constitute the basic material which must be covered by all students preparing to teach business subjects. In addition to these subjects there are required major sequences. Exemption from certain courses may be made in individual cases upon petition approved by the adviser and the Students' Work Committee. The total required for graduation is 186 credits.

FRESHMAN AND SOPHOMORE YEARS

College of Science, Literature, and the Arts:

COURSE No.	TITLE	CREDITS
Com. 1-2-3	Communication (or Comp. 4-5-6 or Eng. A-B-C or exemption)	9-15
Soc.Sci. 1-2-3	Introduction to Social Science	12
Psy. 1-2	General Psychology	6
Geog. 41	Geography of Commercial Production	5
P.H. 3 and 4*	Personal Health and Community Hygiene	4
Econ. 3	Elements of Money and Banking	5
Econ. 5	Elements of Statistics	5
Econ. 6-7	Principles of Economics	10
Econ. 24-25	Principles of Accounting	8
Econ. 32	Beginning Typewriting	1
	Physical Education	3-5

* This requirement may be met by taking P.H. 50, Public and Personal Health, in Senior College.

JUNIOR AND SENIOR YEARS

College of Education:

COURSE No.	TITLE	CREDITS
Ed. 55A-B	Introduction to Secondary Education	10
B.A. 51-53	Business Law	6
B.A. 77	Survey in Marketing	3
Econ. 73	Manpower Economics and Problems	3
H.Ed. 180	The School and the Social Order	3
Ind. 110 or	Vocational Guidance	3
Ed.Psy. 133	Basic Procedures in Student Personnel Work }	3
P.H. 59	Health of the School Child	3

Major Sequences

1. Office and basic business education:

	Basic Course Requirements	99-101
Econ. 33	Intermediate Typewriting	1
Econ. 34	Typewriting Procedures	2
Econ. 37-38-39	Shorthand	9
Econ. 40-41	Advanced Shorthand and Secretarial Procedures	6
Econ. 43	Shorthand Theory	2
B.A. 86	Survey of Office Management	3
B.A. 93	Accounting Laboratory	1
B.A. 96	Business Equipment Laboratory	1
Ed.T. 73A-B-C	Student Teaching of Business Subjects	6
Ed.T. 80	The Teaching of Typewriting	2
Ed.T. 81	The Teaching of Shorthand	2
Ed.T. 82	The Teaching of Bookkeeping and General Business Subjects	2
Econ. 178	Economics of Consumption	3
B.A. 180-181E	Senior Topics: Office Management	6
	Electives	36-38

For the purpose of computing the C+ average (1.5 honor points per credit) the following are considered major courses: Econ. 24-25, 34, 40-41, 43; B.A. 86, 96, 180-181.

2. Distributive and basic business education—In the broad sense distributive occupations are those that involve the marketing or merchandising of goods and services. The sequence below is planned to prepare teacher-coordinators for the teaching of distributive education subjects in the secondary schools.

COURSE No.	TITLE	CREDITS
	Basic Course Requirements	99-101
Ind. 40 and 42, or	Analysis and Course Construction }	3 or 4
Ind. 135	Industrial Course Organization }	
Ind. 60	Philosophy of Vocational Education	2
H.E. 52, or	Textiles	3
H.E. 56A	Applications of Color and Design }	
B.A. 114	Retail Store Management	3
B.A. 182C	Senior Topics: Retailing	3
B.A. 183	Practice Course (Supervised Work Experience)	9
B.A. 188	Advertising	3
Econ. 178	Economics of Consumption	3
Psy. 56	Psychology of Advertising	3
Ed.C.I. 136	Organization and Supervision of Distributive Education	3
Ed.C.I. 139	Coordination Techniques in Business Education	3
Ed.T. 72A-B-C	Student Teaching of Distributive Education Subjects	6
Ed.T. 90A-B-C	The Teaching of Distributive Education Subjects	6
	Electives	28-32

For the purpose of computing the C+ average (1.5 honor points per credit) the following are considered major courses: Econ. 24-25; B.A. 77, 114, 182C; Econ. 161, 178; Ed.C.I. 139.

3. Combination office and distributive education—Those desiring to qualify for certification in office and distributive education under the Federal Vocational Acts are required to take the courses in both sequences with the exception of H.E. 52, Textiles (or 56A); Psy. 56, Psy-

chology of Advertising; B.A. 88, Advertising; B.A. 181E, Senior Topics: Office Management; Econ. 178, Economics of Consumption.

For the purpose of computing the C+ average (1.5 honor points per credit) the following are considered major courses: Econ. 24-25, 34, 40-41; B.A. 86, 114, 182C; Ed.C.I. 139.

Those desiring to qualify for vocational certification under the federal acts must have: Ind. 40, Analysis, and Ind. 42, Course Organization, or Ind. 135, Industrial Course Construction; Ind. 60, Philosophy of Vocational Education; B.A. 183, Practice Course; Ed.C.I. 139, Coordination Techniques in Business Education.

For the purpose of computing the C+ average (1.5 honor points per credit) the following are considered major courses: Econ. 24-25, 34, 40-41, 43; B.A. 86, 96, 182C; Ed.C.I. 139.

Recommended Electives

In the Junior College the following are courses or areas especially recommended: consumer education, science, speech, social science, the home and its furnishings, geography, journalism, English, philosophy, logic, humanities.

In the Senior College it is recommended that the following areas or courses be considered: advanced courses in business administration, visual aids, consumer education in the secondary schools, guidance, conference leading, psychology of adolescence, philosophy of education.

THE CORE CURRICULUM

Major advisers, Professor Nelson L. Bossing and Associate Professor Miles E. Cary

The purpose of this curriculum is to prepare teachers to teach in the core program or "common learnings" in junior and senior high schools. Teaching in the core curriculum involves helping children to identify and study their problems, drawing upon subject matter from many fields in dealing with these problems. It means helping high school students to work together cooperatively, to engage in effective communication, and to develop a philosophy of life.

A student following this curriculum will work out a balanced program in the fields of the humanities, social science, science, family life, and music and art. In addition he must have a minor field of concentration and 35 credits in education. Thirty-one to 34 credits are elective.

Each student should plan with his adviser a tentative program covering his four years of work. Students who enter the curriculum as juniors will have difficulty completing the requirements in two years unless their junior college courses have been carefully selected. Students will meet with their adviser once a week for a two-hour period to discuss their common problems and to exchange ideas and experiences.

Students register for the first two years in the College of Science, Literature, and the Arts and meet the group requirements of that college. Starred courses are especially recommended in each area. An average grade of C+ (1.5 honor points) is required in both the minor field of concentration and in the education courses.

Requirements for a Major in the Core Curriculum

1. Required of all students:

COURSE No.	TITLE	CREDITS
Com. 1-2-3*	Communication (or Comp. 4-5-6 or Eng. A-B-C)	12
Psy. 1-2	General Psychology	6
	Physical Education	3 or 5
	Public Health (P.H. 3, 4 and 59, or 50 and 59)	6 or 7

* Course especially recommended.

2. Humanities area, 24 credits:

COURSE No.	TITLE	CREDITS
Hum. 1-2-3* or Hum. 51-52-53	Humanities in the Modern World	15
Hum. 11-12-13 or Hum. 61-62-63	The European Heritage	15
Hum. 21-22-23,* or Hum. 71-72-73*	American Life Humanities in the United States }	9
Eng. 21-22-23	Introduction to Literature	15
Eng. 37-38-39	Modern Literature	9
Eng. 73-74	American Literature	6
Phil. 1	Problems of Philosophy	5

3. Social science area, 18 credits:

Soc.Sci. 1-2-3*	Introduction to Social Science	12
Soc.Sci. 11-12-13	International Relations	9
Anthrop. 1,* or Anthrop. 2*	Introduction to Anthropology Introduction to World Ethnology }	5
Geog. 4	Human Geography	5
Hist. 1-2-3	Civilization of the Modern World	9
Hist. 20-21-22	American History	9
Pol.Sci. A-B-C	The State in the Modern World	9
Soc. 1	Introduction to Sociology	5

4. Science area, 19 credits:

Nat.Sci. 1-2-3,* or Nat.Sci. 4-5-6*	Orientation in Natural Science } The Physical World }	15 or 10
Nat.Sci. 7-8-9*	General Biology	10
Phil. 81-82-83*	Science and Civilization	9
Nat.Sci. 171-172-173	The Development of the Sciences	9

5. Family life area, 9 credits:

G.C. 16, or F.L. 15	Selecting and Furnishing a Home } The Home and Its Furnishing }	3
H.E. 31	Introduction to Nutrition	3
G.C. 15, or H.E. 1	Clothing Selection, Purchase and Care } Choice and Care of Clothing }	3
G.C. 17, or F.L. 20	Income Management and Buying } Consumer Education }	3
G.C. 18, or F.L. 25	Principles of Child Care } Child Development and Adjustment }	3
F.L. 1	Preparation for Marriage	3

6. Music and art appreciation area, 8 to 12 credits:

Art 1*	Introduction to Art	4
Mu. 10*	Introduction to Music	4
Phil. 4*	Introduction to the Philosophy of Art	4
Mu. 31-32-33	Music Literature	2 to 6
Art 66-67-68	Modern Art	9

7. Minor field of concentration, 18 to 36 credits.

8. Education courses, 35 credits. See professional requirements, pages 10 and 11.

9. Elective courses, 31 to 34 credits to complete the total of 186.

CURRICULUM AND INSTRUCTION

Major advisers, Dean W. E. Peik; Professors Guy L. Bond, Nelson L. Bossing, L. J. Brueckner, Walter W. Cook, Palmer O. Johnson, Dora V. Smith, Edgar B. Wesley

Graduate students interested in curriculum and instruction may secure graduate work in the field with special emphasis on elementary, secondary, or higher education. For statement of the general program and requirements leading to the M.A. or Ph.D. degree see the *Bulletin of the Graduate School*. The following are special programs for secondary school teachers in certain fields.

* Course especially recommended.

For English Teachers

Major adviser, Professor Dora V. Smith

Note—See also five-year program in English Education.

English teachers may secure a master of arts degree in the Graduate School with a major in education or curriculum and instruction and a supporting minor in English under Plan A or Plan B. Courses applicable to the teaching of English from which the student may profitably choose are as follows: Ed.C.I. 113, 122, 133, 169, 293, 294, 296; Ed.Psy. 158, 208. The seminar, Ed.C.I. 222, is required without credit for all students with a major or minor under Plan A. Programs should be arranged in consultation with the major adviser.

For Teachers of Social Studies

Major adviser, Professor Edgar B. Wesley

Note—See also the five-year program in Social Studies.

Social studies teachers may secure a master of arts degree in the Graduate School with a major in education or in curriculum and instruction and a minor or related courses in history, economics, political science, geography, or sociology. Courses which are recommended as fitting into this plan are Ed.C.I. 168, 201, 204, 254, 293; H.Ed. 241; Ed.Psy. 208. The Seminar, Ed.C.I. 222, is required without credit for all students with a major or minor under Plan A. Programs should be arranged in consultation with the major adviser.

For Science Teachers

Major adviser, Professor Palmer O. Johnson

Note—See also the five-year program in Natural Science.

Science teachers may secure a master of arts degree in the Graduate School with a major in education or in curriculum and instruction and a minor in a science under Plan A, or with education or curriculum and instruction as a field of concentration and courses in one or more sciences and/or courses in education in fields other than those represented in the field of concentration under Plan B.

The seminar, Ed.C.I. 222, is required without credit for all students with a major or minor under Plan A.

Programs should be arranged in consultation with the major adviser.

EDUCATIONAL ADMINISTRATION

Major advisers, Educational Administration: Professor M. G. Neale; Secondary School Administration and Supervision: Professors Charles W. Boardman and Nelson L. Bossing; Elementary School Administration and Supervision: Dean W. E. Peik, Professor L. J. Brueckner, Associate Professor Paul R. Grim

The student who wishes to specialize in administration or administration and supervision for a position as superintendent of schools, elementary school principal and supervisor, secondary school principal and supervisor, or for some other administrative position, must satisfactorily complete the requirements for the master of arts degree.

The candidate for the master of arts degree in administration or administration and supervision should have completed, in his undergraduate years, one of the curricula preparing for secondary school teaching or the four-year curriculum in elementary education.

The work of the student will usually constitute a major in educational administration and a minor in curriculum and instruction or educational psychology, but other combinations with subject-matter departments or a general major in education can be arranged, subject to the approval of major adviser.

For statement of the general program and requirements for the M.A. or the Ph.D. degree see the *Bulletin of the Graduate School*.

EDUCATIONAL PSYCHOLOGY

Major advisers, Professors Guy L. Bond, Walter W. Cook, Willis E. Dugan, Marcia Edwards, Palmer O. Johnson, C. Gilbert Wrenn;
Associate Professor Marvin J. Van Wagenen

Students who plan to assume certain specialized duties in connection with high school work, and students who wish to specialize in the field of educational psychology, statistics, or measurement, may register in the Graduate School and elect a major or minor in educational psychology leading to the M.A. or to the Ph.D. degree.

The training for the master of arts degree is intended particularly for students who may perform the duties of counselor, dean, clinical psychologist, or specialist in tests and measurements in connection with their public school work. It is not the purpose of the courses for the master of arts degree to produce a person with highly specialized training, but to supply a basis for later professional growth as well as some immediate background for handling the problems involved in the several positions indicated.

Programs should be made in consultation with an adviser. For courses and requirements, see the *Bulletin of the Graduate School*.

ELEMENTARY, PRIMARY, KINDERGARTEN, AND NURSERY SCHOOL EDUCATION

Major advisers, Elementary Education—Supervision or Teaching: Professors Guy L. Bond and L. J. Brueckner, Associate Professors Carl V. Goossen, Paul R. Grim, Assistant Professor Jean H. Alexander, Nursery School-Kindergarten-Primary Education: Professor J. E. Anderson and Associate Professor Elizabeth M. Fuller

The basic curricula outlined in this section prepare for all types of elementary school teaching from nursery school and kindergarten through the eight years of the elementary school. Upon graduation the student, depending on his choice of curriculum, is eligible for one of two certificates: (1) the *general elementary* certificate for teaching in the elementary school; or (2) the *special kindergarten-primary* certificate for teaching in kindergarten and grades 1 to 3. By taking additional courses in the junior and senior years or after graduation the student in elementary education may also qualify for junior high school teaching, or for an elementary school principalship or supervisorship when he has secured the necessary experience.

The various curricula listed below are for persons of different backgrounds of education, training, and experience. Curricula IA and IB are for regular college students who take four years of work; Curricula IIIA and IIIB are for students who already hold a B.A. or B.S. degree; Curricula IIA and IIB are for teachers and others who have completed two years of training in a teachers college and already have a certificate for elementary school teaching. A student should identify his curriculum and

consult an adviser in his field. Information about curricula and assistance in making a choice may be secured at the Student Personnel Office, 204 Burton Hall.

The regular four-year student will follow Curriculum IA for elementary school teaching or Curriculum IB for nursery school-kindergarten-primary teaching.

Equivalent courses offered in the General College or equivalent courses taken elsewhere may be substituted for required courses in the various fields with the approval of the adviser and of the Students' Work Committee of the College of Education.

Deficiencies due to transfer from other schools can be made up after entering the College of Education. The aim is broad functional contacts with cultural fields of knowledge essential for the general education of the teacher and as marginal resources for teaching the common and special subjects of the elementary school.

Curriculum IA—Elementary Education

COURSE No.	TITLE	CREDITS
Com. 1-2-3	Communication (or Comp. 4-5-6 or Eng. A-B-C or exemption)	9-12
Geog. 1 or Geog. 4 or G.C. 38	Physical Geography } Human Geography } General Geography }	5
Nat.Sci. 7-8-9 or	General Biology (or General Botany, General Zoology, or both)	9 to 15
Nat.Sci. 1-2-3	Orientation in the Natural Sciences	
Sp. 1-2 or 5 or G.C. 32A-B	Fundamentals of Speech } Speech Laboratory }	5 or 6
Soc. 1 and Soc. 49 or Soc.Sci. 1-2-3	Introduction to Sociology } Social Problems }	8 to 12
Art Ed. 17-18	Introduction to Social Science	9
Mu. 31 or 32 or 33	Social Studies, History or Political Science or both	6
Mu.Ed. 50A	Survey of Art in Life and Education	2
Psy. 1-2	Music Literature	2
H.E. 30 or 31 or G.C. 14	Teaching Music in the Primary Grades (Prereq., Mu. 1, unless excused)	6
Phys.Ed. 1-4 or	General Psychology	2 or 3
Phys.Ed. 1-2-3	Introduction to Nutrition } Food Selection and Purchase }	5-7
Phys.Ed. 58	General Courses in Physical Education (for women) and/or Phys.Ed. 45	3
P.H. 3†	Sports Education (for men)	3
P.H. 4†	Introduction to Elementary Physical Education Program	2
	Personal Health	2
	Health Problems of the Community	2
	Electives to complete total of 96 credits	9-23

Men in Curriculum IA may omit Mu. 31, or 32, or 33, Mu.Ed. 50A, and H.E. 30 or 31 or G.C. 14. Although Phys.Ed. 58 is open to both men and women, men may substitute for it Phys.Ed. 56, Nature and Function of Play, offered in the Department of Physical Education for Men. All women students are strongly urged to take Ind. 11, Special Class Woodwork, 2 credits, and Phys.Ed. 45, Laboratory for Physical Education in the Elementary School, either as a part of the general physical education or in addition to it. Men are urged to take Ind. 1, Basic Woodwork, 3 credits, and Ind. 5, Basic Drawing, 3 credits.

† P.H. 50, Public and Personal Health, 3 credits, may be taken in Senior College instead of P.H. 3 and 4.

JUNIOR AND SENIOR YEARS

Academic fields—Approximately half of the work of the junior and senior years is in courses other than education. These credits are elective (except for P.H. 59) and may be selected from any of the courses listed in the *Bulletin of the College of Science, Literature, and the Arts*. A minimum of 18 of these credits must be taken in senior college, i.e., in courses numbered 50 or above. Additional courses in English, speech, humanities, natural science, social studies, and art or music are recommended. The course P.H. 59, *The Health of the School Child*, 3 credits, (prereq. P.H. 3 and 4, or 50), must be included.

Other courses such as those in agriculture, art education, home economics, industrial education, music education and physical education may be allowed if selected in conference with the major adviser.

Elementary education major:

COURSE No.	TITLE	CREDITS
Ed. 71A-B-C	Introduction to Elementary School Teaching: 71A, Individual Differences; 71B, Educational Psychology; 71C, The Elementary School Program	15
Art Ed. 84	Teaching of Art in the Elementary School	3
Mu.Ed. 50B	Teaching Music in the Intermediate Grades	2
Ed.C.I. 60B	The Teaching of Reading in the Elementary Grades	3
Ed.C.I. 61	The Teaching of the Social Studies in the Elementary School	3
Ed.C.I. 62B	The Teaching of Arithmetic in the Intermediate Grades	3
Ed.C.I. 63	Children's Literature	2
Ed.C.I. 64	The Teaching of English in the Elementary School	3
Ed.C.I. 65	The Teaching of Science in the Elementary School	3
Ed.T. 54A-B	Student Teaching in the Elementary School	10
H.Ed. 180	The School and the Social Order	3
	Elective in General or Elementary Education	2 or 3

A grade average of C is required in the elementary education major.

Junior high school endorsement—Students pursuing Curriculum IA may secure endorsement for junior high school teaching on the certificate for the elementary school by meeting the following requirements:

1. The completion of a regular minor for teaching in the secondary schools.
2. The course Ed.Ad. 167, Junior High School, 3 cred.
3. A special methods course covering the junior high school level in the minor, which may be substituted for the elementary methods course in the field on the recommendation of the adviser.
4. Student teaching in grades 7, 8, or 9 (Ed.T. 52, 2 or 3 cred.), in addition to student teaching in the elementary school. Students who are not able to complete the work for junior high school teaching can do so in the first term of the Summer Session.

Curriculum IB—Nursery School-Kindergarten-Primary Education

FRESHMAN AND SOPHOMORE YEARS

COURSE No.	TITLE	CREDITS
Com. 1-2-3	Communication (or Comp. 4-5-6 or Eng. A-B-C or exemption)	9-12
Geog. 1 or Geog. 4 or G.C. 38	Physical Geography } Human Geography } General Geography }	5
Nat.Sci. 7-8-9 or	General Biology (or General Botany, or General Zoology, or both) }	10 to 15
Nat.Sci. 1-2-3 Sp. 1-2 or 5 or G.C. 32A-B	Orientation in the Natural Sciences } Fundamentals of Speech } Speech Laboratory }	5 or 6

COURSE No.	TITLE	CREDITS	
Soc. 1 and Soc. 49 or Soc.Sci. 1-2-3	Introduction to Sociology Social Problems Introduction to Social Science	} 8 to 12	
	Social Studies, History or Political Science or both		9
	Survey of Art in Life and Education		6
Art Ed. 17-18	Music Literature	2	
Mu. 31, or 32, or 33	Teaching Music in the Primary Grades (Prereq., Mu. 1, unless excused)	2	
Mu.Ed. 50A	General Psychology	6	
Psy. 1-2	Introduction to Nutrition	} 2 or 3	
H.E. 30, or 31, or G.C. 14	Food Selection and Purchase		
Phys.Ed. 1-4	General Courses in Physical Education (for women) and/or Phys.Ed. 45	5-7	
Phys.Ed. 25	First Aid	1	
Phys.Ed. 58	Introduction to Elementary Physical Education Program	3	
P.H. 3†	Personal Health	2	
P.H. 4†	Health Problems of the Community	2	
	Electives to complete total of 96 credits	9-23	

See statement above under Curriculum IA about recommended electives. The Red Cross first aid certificate will be substituted for Phys.Ed. 25.

JUNIOR AND SENIOR YEARS

Students of sophomore standing or above are urged whenever possible to enter the nursery school-kindergarten-primary Curriculum IA at the beginning of the academic year (fall quarter). Courses are offered in two- and three-quarter sequences, so that difficulties are encountered in program planning where initial entry is made in the middle of the school year.

COURSE No.	TITLE	CREDITS
Ed. 71A-B-C	Introduction to Elementary School Teaching: 71A, Individual Differences; 71B, Educational Psychology; 71C, The Elementary School Program	15
C.W. 80	Child Psychology	3
Ed.T. 55	Principles of Early Childhood Education	3
Ed.T. 56	Methods and Observation in the Nursery School and Kindergarten	5
Ed.T. 57	Nursery School-Kindergarten Laboratory in Art, Literature, and Social Studies	5
Ed.T. 58	Nursery School-Kindergarten Laboratory in Play Materials, Music, and Science	5
Ed.T. 76	The Teacher and the Parent	3
P.H. 57 or P.H. 59	Health of Infant and Preschool Child } Health of the School Child }	} 2 or 3
Ed.C.I. 60A	The Teaching of Reading in the Primary Grades	
Ed.C.I. 61	The Teaching of the Social Studies in the Elementary School	3
Ed.C.I. 62A	The Teaching of Arithmetic in Primary Grades	2
Ed.C.I. 63	Children's Literature	2
Ed.C.I. 64	The Teaching of English in the Elementary School	3
Ed.C.I. 65	The Teaching of Science in the Elementary School	3
Ed.C.I. 105	Visual Materials in Education	3
Ed.T. 77	Student Teaching in the Nursery School	4
Ed.T. 78	Student Teaching in the Kindergarten	4
Ed.T. 79	Student Teaching in the Primary Grades	4
	Electives to complete total of 186 credits	19-20

A grade average of C is required in the following courses: C.W. 80; Ed.T. 55, 56, 57, 58, 70, 77-78-79; Ed.C.I. 60A, 61, 62A, 63, 64, 65.

Electives should be planned carefully with the adviser in order to have at least one area of concentration or, if possible, an academic minor.

† P.H. 50, Public and Personal Health, may be taken in Senior College instead of P.H. 3 and 4.

Curriculum IIIA—Elementary Education

SENIOR YEAR

This curriculum is for students who already have a B.A. or B.S. degree and who wish to prepare for elementary school teaching.

Students must enter the program in the fall, and complete the courses of the fall, winter and spring quarters in sequence. They may, however, make up any deficiencies or lighten their programs by taking work in the Summer Session.

A minimum of 47 or 48 credits and a C average (1 honor point per credit) on the total is required.

COURSE No.	TITLE	CREDITS
Ed. 71A-B	Introduction to Elementary School Teaching; 71A, Individual Differences; 71B, Educational Psychology	10
Ed.C.I. 119	Elementary School Curriculum	3
Ed.Ad. 115 or	Organization of the Elementary School	3
Ed.C.I. 181	Foundations of Elementary School Methods	
Ed.C.I. 60B or	The Teaching of Reading in the Elementary School	3
Ed.C.I. 143	Teaching and Supervision of Reading in the Elementary School	
Ed.C.I. 61 or	The Teaching of the Social Studies in the Elementary School	3
Ed.C.I. 102	The Teaching of the Social Studies in the Elementary School	
Ed.C.I. 62B or	The Teaching of Arithmetic in Intermediate Grades	3
Ed.C.I. 149	The Teaching and Supervision of Arithmetic in the Elementary School	
Ed.C.I. 63 or	Children's Literature	2
Ed.C.I. 122	Literature for Adolescents	
Ed.C.I. 64 or	The Teaching of English in the Elementary School	3
Ed.C.I. 153	Supervision and Teaching of English in the Elementary School	
Ed.C.I. 65 or	The Teaching of Science in the Elementary School	3
Ed.C.I. 103	The Teaching of Science in the Elementary School	
Ed.T. 54A-B	Student Teaching in the Elementary School	10
Mu.Ed. 50B	Teaching of Music in the Intermediate Grades	2
Art Ed. 84	Teaching of Art in the Elementary School	3
Total		48

Junior high school endorsement in most fields can be secured by taking additional work in the first term of the Summer Session. For junior high school endorsement, credits in secondary school methods in the minor will be substituted for elementary methods; the requirements for a minor in a secondary teaching field must be met through previous or additional work; and the student must add 2 credits in Ed.T. 52, Student Teaching in the Secondary School and 3 credits in Ed.Ad. 167, the Junior High School.

Admission to this curriculum will be on the same basis as that for any student in elementary education.

Completion of Psy. 1-2, General Psychology, is required for admission to the curriculum if it has not been included in the student's previous Bachelor's degree program. If the student has not had equivalent work in public health he must add P.H. 50, Public and Personal Health, 3 credits, to the above program.

The student will not be held for any other general requirements, the previous B.A. or B.S. program being substituted for all other work.

On the completion of Curriculum IIIA the student will be recommended for the B.S. degree from the College of Education and for the teachers' certificate for elementary school teaching.

Curriculum IIIB—Nursery School-Kindergarten- Primary Education

SENIOR YEAR

This curriculum is for students who already have a B.A. or B.S. degree and who wish to receive a B.S. degree from the College of Education and the special certificate for kindergarten-primary teaching.

Students must enter this program in the fall quarter. A minimum of 45 credits are to be selected from the following courses in conference with the adviser.

COURSE No.	TITLE	CREDITS
Ed. 71A-B-C	Introduction to Elementary School Teaching: 71A, Individual Differences; 71B, Educational Psychology; 71C, The Elementary School Program	15
Ed.C.I. 60A	The Teaching of Reading in the Primary Grades	3
Ed.C.I. 61	The Teaching of the Social Studies in the Elementary School	3
Ed.C.I. 62A	The Teaching of Arithmetic in Primary Grades	2
Ed.C.I. 63	Children's Literature	2
Ed.C.I. 64	The Teaching of English in the Elementary School	3
Ed.C.I. 65	The Teaching of Science in the Elementary School	3
C.W. 80	Child Psychology	3
Ed.T. 55	Principles of Early Childhood Education	3
Ed.T. 56	Methods and Observation in Nursery School and Kindergarten	5
Ed.T. 57	Nursery School-Kindergarten Laboratory in Art, Literature, and Social Studies	5
Ed.T. 53	Nursery School-Kindergarten Laboratory in Play Materials, Music and Science	5
Ed.T. 76	The Teacher and the Parent	3
Ed.T. 77	Student Teaching in the Nursery School	4
Ed.T. 78	Student Teaching in the Kindergarten	4
Ed.T. 79	Student Teaching in the Primary Grades	4
H.E. 30	Introduction to Nutrition	2
Mu.Ed. 50A	Teaching Music in the Primary Grades	2

A grade average of C is required for the above major.

Admission to this curriculum will be on the same basis as that for any student in elementary education.

Completion of Psy. 1-2, General Psychology, is required in addition to the above if it has not been included in the student's previous Bachelor's degree program.

The student will not be held for any other general requirements, the previous B.A. or B.S. program being substituted for all other work.

Curriculum IIA—Elementary Education for Teachers

JUNIOR AND SENIOR YEARS

This curriculum is for teachers and other students who have completed a two-year course of professional training and *already hold* an elementary school certificate.

The College of Education allows a minimum of 90 credits for the two-year diploma course in elementary education taken in an accredited teacher training institution. These credits are listed as "blanket credits" and are not assigned to particular courses. They are accepted in lieu of the general course requirements for the freshman and sophomore years and the following program represents the work of the last two years. The curriculum leads to the advanced elementary teaching certificate. By a careful selection of courses or by taking additional courses before or after graduation, the student may also qualify for the Minnesota state principal's or supervisor's certificate as well. By substituting certain courses in the secondary field the certificate is made legal also for junior high school teaching.

Major in elementary education, 30 credits:

1. Required of all—14 or 15 credits.

COURSE No.	TITLE	CREDITS
Ed.Psy. 60	Introduction to Measurement and Statistics	2 or 3
Ed.C.I. 119	Elementary School Curriculum	3
Ed.C.I. 150	Supervision and Improvement of Instruction	3
Ed.Ad. 115	Elementary School Organization (for junior high school endorsement substitute Ed.Ad. 167 for this course)	3
H.Ed. 180	The School and the Social Order	3

2. Nine credits in methods to be chosen from the following:

Ed.C.I. 65 or 103	The Teaching of Science in the Elementary School } Problems in the Teaching of Elementary School Science }	3
Ed.C.I. 63	Children's Literature	2
Ed.C.I. 102	The Teaching of the Social Studies in the Elementary School	3
Ed.C.I. 143	The Teaching and Supervision of Reading in the Elementary School	3
Ed.C.I. 149	The Teaching and Supervision of Arithmetic in the Elementary School	3
Ed.C.I. 151	Diagnostic and Remedial Instruction	3
Ed.C.I. 153	Supervision and Teaching of English in the Elementary School	2 or 3

Other courses in methods by petition.

3. Education electives—6 or 7 credits. These credits may be chosen from any of the above courses or from any of the courses listed under General Courses or Elementary Education.

The C+ average (1.5 honor points per credit) is based on the 30 credits in the elementary education major.

Note—Students may be required to take Practice Teaching, Ed.T. 54A-B, unless evidence of satisfactory experience is presented. The decision is made by the major adviser and the director of student teaching. Students are urged to plan their programs early so as not to exceed the 30 credits allowed in education.

Minor and academic courses—60 to 66 credits. These credits are to be selected from courses *other* than education. At least 18 of the academic credits must be in the courses numbered 50 or above. Requirements are as follows:

1. Courses in public health: P.H. 50, Public and Personal Health, 3 credits, and P.H. 59, Health of the School Child, 3 credits, prereq. P.H. 50.
2. A *regular* minor. Requirements for minors vary from 23 to 36 credits. Minors in the various fields are described in this section of the bulletin.
3. Eighteen credits in at least one of the following or such other fields as may be approved by the adviser. In each case all 18 credits are to be taken during the third and fourth years and are as a rule to be selected from courses offered in the College of Science, Literature, and the Arts. Students must aim to supplement, and not to duplicate, courses taken elsewhere. Credit cannot be allowed for courses that are largely duplication. Child welfare and psychology are not areas of concentration but general electives may be chosen from those fields.

The fields are:

English	A social science or general social sciences
A foreign language	(other than history or geography)
Speech	Mathematics
Language arts	Art
Humanities	Music
Geography	Library science
History	Physical education
A science or general science	Others by special permission

4. Academic electives—12-30 credits, to complete the total of 186 credits. At least 18 credits in *academic courses* must be in courses numbered 50 or above. Any course listed in the *Bulletin of the College of Science, Literature, and the Arts* will count toward this requirement whether taken as a part of the minor or concentration or as an elective.

Courses in General Extension—Elementary teachers taking extension and late afternoon and Saturday morning courses should complete all the procedures for admission to the college as a regular student as soon as possible after they begin their work and in no case later than the beginning of the senior year (when they have earned 135 credits). They should follow the pattern of the curriculum to be certain that all work taken will apply toward graduation. They should consult an adviser in the College of Education early in their course and with regard to transfer credits and any courses not a part of the curriculum.

Junior high school endorsement—To secure junior high school endorsement on the certificate for elementary school teaching the following requirements must be met:

1. Completion of a regular minor for teaching a subject in the secondary schools. This is the requirement listed under 2 above.
2. A methods course in the minor covering the junior high school level. This course is to be included in the 9 credits in methods required in the major.
3. The course Ed. Ad. 167, Junior High School. This course is to be substituted for Ed. Ad. 115.
4. Satisfactory student teaching or experience in grades 7, 8, or 9.

Curriculum IIB—Nursery School-Kindergarten- Primary Education for Teachers

JUNIOR AND SENIOR YEARS

This curriculum is for teachers and other students who have completed a two-year course of professional training and *already hold* a certificate for teaching in kindergarten and primary school, or in the elementary school.

The College of Education allows a minimum of 90 credits for the two-year diploma course taken in an accredited teacher training institution. These credits are listed as "blanket credits" and are not assigned to particular courses. They are accepted in lieu of the general course requirements of the freshman and sophomore years and the following program represents the work of the last two years.

The curriculum leads to the advanced special elementary certificate for teaching in kindergarten and the primary grades.

The C+ average is based on the 40 credits in the major.

Major in nursery school-kindergarten-primary education, 40 credits in the College of Education and the Institute of Child Welfare, as follows:

1. Required of all, 22 credits:

COURSE No.	TITLE	CREDITS
Ed.T. 56	Methods and Observation in the Nursery School and Kindergarten	5
Ed.T. 76	The Teacher and the Parent	3
Ed.T. 77	Student Teaching in the Nursery School	4
C.W. 140	Behavior Problems in Younger Children	2
C.W. 150-151-152	Childhood Education	6
C.W. 190	Use and Interpretation of Tests for Children	2

2. Eight or nine credits chosen from the following:

COURSE No.	TITLE	CREDITS
C.W. 130	Motor, Linguistic, and Intellectual Development of the Child	3
C.W. 131	Personality, Emotional, and Social Development of the Child	3
C.W. 141	Behavior Problems of the Older Children	2
C.W. 142	Psychology of Atypical Children	2
C.W. 143	Problems of Mental Deficiency	3
C.W. 160	Physical Growth and Development	3
C.W. 185	Children in a Changing World	3

3. Nine or ten credits from the following courses:

Ed.C.I. 102	Teaching of Social Studies in the Elementary School	3
Ed.C.I. 105	Visual Materials in Education	3
Ed.C.I. 119	Elementary School Curriculum	3
Ed.C.I. 130	Problems of Childhood Education	2
Ed.C.I. 143	The Teaching and Supervision of Reading in the Elementary School	3
Ed.C.I. 145	Remedial Reading	3
Ed.C.I. 146	Current Developments in Language Expression in the Elementary School	3
Ed.C.I. 150	Supervision and Improvement of Instruction	3
Ed.C.I. 151	Diagnostic and Remedial Instruction	3
Ed.Ad. 115	Elementary School Organization	3
H.Ed. 103 or	History of Modern Elementary Education }	3
H.Ed. 155	History of Education in the United States }	
H.Ed. 176	Conflicting Issues in Modern Education	3
H.Ed. 180	The School and the Social Order	3

Academic courses and minor, 50 to 56 credits. Students take much of their work in the junior and senior years in academic courses. The exact amount will depend on the number of transferred credits. Any of the courses listed in the *Bulletin of the College of Science, Literature, and the Arts* will meet this requirement. Some courses in the special fields will be allowed but should be selected in conference with the major adviser. At least 18 of the 50 or more credits must be in *academic fields in courses numbered 50 or above.*

1. Courses in public health: P.H. 50, Public and Personal Health, 3 credits, and P.H. 59, Health of the School Child, 3 credits, prereq. P.H. 50.

2. A *regular* minor in an academic subject or special field as listed elsewhere in the section on curricula.

3. Twelve credits in at least one of the following fields or in such other fields as may be approved by the adviser:

English	A social science or general social sciences
Speech	(other than history or geography)
Language arts	Mathematics
Humanities	Art
A foreign language	Music
Geography	Library science
History	Physical education
A science or general science	Others by special permission

4. Academic electives to complete the total of 186 credits.

Five-Year Program in Early Childhood Education Leading to the Master of Education Degree

The College of Education, in cooperation with the Institute of Child Welfare, has outlined a five-year program leading to the master of education degree in Early Childhood Education for students who satisfactorily complete a fifth year of work in education and child welfare courses at the graduate level and who meet all the regulations for the professional degree. Undergraduate students in the Nursery School-Kindergarten-Primary School curriculum who expect to qualify for the M.Ed. degree

should confer with their advisers by the beginning of the junior year in order that the work of the junior, senior, and fifth years may be coordinated to the best advantage.

In addition to the general requirements for the M.Ed. degree the specific requirements in early childhood education are as follows: (1) a total of 45 credits beyond the requirements for the Bachelor's degree in the nursery school-kindergarten-primary education curriculum; (2) a period of internship for which a maximum of 8 credits will be given; (3) a distribution of credits for the fifth year in accordance with an approved pattern, including the internship and courses in child welfare and curriculum and instruction, with other courses to be selected from educational psychology, psychology, or sociology and from educational administration or the history and philosophy of education. For further information consult the major adviser.

Five-Year Program in Elementary Education Leading to the Master of Education Degree

The College of Education has outlined a five-year program leading to the master of education degree in Elementary Education upon the satisfactory completion of a fifth year of work at the graduate level. The work of the fifth year is based on the four-year curriculum in elementary education, IA, and conforms to the general requirements set up for the M.Ed. degree. For information in regard to the program consult the major adviser or the dean of the college.

Fifth Year in the Graduate School

Graduates of the elementary and nursery school-kindergarten-primary education curricula may take courses in the Graduate School and pursue work leading to the degrees of master of arts and doctor of philosophy. Various fields of study are elementary school administration and supervision, teacher training, early childhood education, and general elementary education.

Graduate programs in childhood education are offered by the Institute of Child Welfare and by the College of Education. Graduate advisers are Professor John E. Anderson and Associate Professor Elizabeth M. Fuller.

Graduate students in elementary education will pursue work in accordance with their specialization, interests, and needs. Graduate advisers in elementary education are Professors Guy L. Bond and Leo J. Brueckner; Associate Professor Paul R. Grim.

The general plan of graduate work and requirements for the M.A. and Ph.D. degrees are described in the *Bulletin of the Graduate School*.

ENGLISH

Major advisers, Professor Dora V. Smith and Assistant Professor Harold B. Allen

Students who wish to major in English for high school teaching are strongly urged to consider the language arts curriculum described on pages 51-52. Students who major in English take the first two years in the College of Science, Literature, and the Arts and meet the group requirements of that college. They should include in their programs the Junior College courses listed below. The general and professional requirements of the College of Education are described on pages 7 to 12.

English as a major subject:

COURSE No.	TITLE	CREDITS
Eng. 22-23	Introduction to Literature	10
Eng. 55-56	Shakespeare	6
Eng. 73-74	American Literature	6
Eng. 165	Introduction to Modern English	3
Comp. 27-28	Advanced Writing	6
Sp. 1-2	Fundamentals of Speech	6
	Electives in courses numbered 100 or above	6

Students with a major in English are required to take Ed.C.I. 122, Literature for Adolescents, 2 credits, which is counted in the professional requirement. For student teaching and special methods in English they register in Ed.T. 75, Student Teaching in the Language Arts, and Ed.T. 75A-B-C, The Teaching of the Language Arts.

English as a minor subject: Eng. 22-23, 55-56, and 73-74; and Comp. 27-28.

Five-Year Program Leading to the Master of Education Degree

The College of Education has outlined a five-year curriculum leading to the professional degree of master of education for teachers of English. The curriculum includes specific recommendations for Junior College work and students should confer with an adviser early in their college course. The work of the fifth year, representing 45 credits beyond the requirements for the Bachelor's degree with a major in English or language arts, conforms to the general requirements of the M.Ed. degree, and is made up of graduate courses in English and in education, including the internship and courses in curriculum and instruction, educational psychology, and the history and philosophy of education. For further information consult one of the major advisers. See also the statement on page 32 regarding work in the Graduate School.

GEOGRAPHY

Major adviser, Professor Jan O. M. Broek

Because of the many demands made upon the teachers of the social studies, because of the necessity of teaching more than one subject or general courses in the field, and because of the difficulties of placement, students are strongly urged to follow the social studies curriculum, pages 80-82.

The first two years of this curriculum are taken in the College of Science, Literature, and the Arts and the student meets the group requirements of that college. Professional and general requirements of the College of Education are described on pages 7 to 12.

Geography as a major subject for high school teaching: 33 to 35 credits.

Geog. 1	Physical Geography	5
Geog. 4 and/or	Human Geography	}
Geog. 41	Geography of Commercial Production	
Geog. 112	Western Anglo-America	3
Geog. 113	Eastern Anglo-America	3
Geog. 143	Political Geography	3
Geol. 1-2 or	General Geology	}
Geol. 8	Earth Features and Their Meaning	
	Elective courses in geography	6-9

Geography as a minor subject:

Twenty-three credits including Geog. 1 and 4.

GERMAN

Major adviser, Professor Frank H. Wood

The student registers during the first two years in the College of Science, Literature, and the Arts and meets the group requirements of that college, as well as the prerequisites for Senior College courses in German. The general and professional requirements for the College of Education are described on pages 7 to 12.

German as a major subject for high school teaching:

COURSE No.	TITLE	CREDITS
Ger. 50-51-52	Composition	6
Ger. 53-54-55	Conversation	6
Ger. 56-57	Essay Writing	6
Ger. 58	German Pronunciation	2
Ger. 71 or 72	Survey of Literature	3
Ger. 90-91-92	German Civilization and Culture (any two quarters)	6
	Electives in courses numbered 50 or above	6

German as a minor subject:

Ger. 50-51-52	Composition	6
Ger. 58	German Pronunciation	2
	Electives in courses numbered 50 or above	8

HIGHER EDUCATION

Major advisers, Dean W. E. Peik; Professor Ruth E. Eckert;
Associate Professor Paul R. Grim

Students enrolled in the Graduate School may select courses relating to the field of higher education. Such students will usually have a graduate major in curriculum and instruction, educational administration, or educational psychology. Some of the courses offered are: Ed.C.I. 250, Higher Education in the United States; Ed.C.I. 251, Curriculum Trends in American Colleges; Ed.C.I. 252, Effective College Teaching; Ed.Ad. 253, Administration in Higher Education; Ed.Ad. 290, Financing Higher Education; Ed.Psy. 250 and 251, College Student Personnel Work; Ed.Psy. 254, Measurement and Evaluation in Higher Education; Ed.C.I. 228, Problems of College Education and Teacher Training; Ed.C.I. 285, Professional Education of Teachers.

Unusual facilities are offered for laboratory work in higher education through the cooperation of administrative, research, and service departments, and through the University's experimental educational divisions. Such laboratories include the University Counseling Bureau and its associated counseling services, the General College, and the Office of Educational Research, through which are coordinated the researches on the University's own educational problems.

HISTORY

Major adviser, Professor A. C. Krey

Because of the many demands made upon the teachers of the social studies, because of the necessity of teaching more than one subject or general courses in the field, and because of the difficulties of placement, students are strongly urged to follow the social studies curriculum, pages 80-82.

The first two years of this curriculum are taken in the College of Science, Literature, and the Arts and students meet the group requirements of that college. They should include in their programs not less than 18 credits in Junior College history courses. The general and pro-

essional requirements of the College of Education are described on pages 7 to 12.

History as a major subject for high school teaching:

A total number of 45 credits of which at least 18 must be in Senior College courses.

History as a minor subject:

A minimum of 23 credits of which no fewer than 9 are in Senior College courses.

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

HISTORY AND PHILOSOPHY OF EDUCATION

Major advisers, Professor Edgar B. Wesley; Associate Professors Robert H. Beck, Miles E. Cary; Assistant Professor Jean H. Alexander

Work in the history and philosophy of education is available at the graduate level leading to the M.A. and Ph.D. degrees. Students should arrange a program in consultation with an adviser in accordance with their special fields of interest. For courses and requirements see the *Bulletin of the Graduate School*.

HOME ECONOMICS EDUCATION

Major advisers, Professors Clara B. Arny, Ella J. Rose; Associate Professor Roxana Ford; Assistant Professor Hedda Kafka

The College of Agriculture, Forestry, Home Economics, and Veterinary Medicine and the College of Education cooperate in the preparation of teachers of home economics. Satisfactory completion of the general teaching curriculum will lead to the B.S. degree and will provide the necessary training for qualification for the Minnesota "high school standard special certificate" for teaching home economics in the secondary school. Completion of this curriculum also qualifies for teaching in federally aided home economics departments.

During the first two years the student is registered in the College of Agriculture, Forestry, Home Economics, and Veterinary Medicine. When the student has earned a minimum of 90 credits and at least one honor point per credit (junior classification) and indicated her specialization as the teachers' or the extension teachers' curriculum, she becomes a registrant also in the College of Education. At the end of the sophomore year or the beginning of the junior year, the student is required to take the examinations given in the College of Education.

Prior to registration for supervised teaching, the student must have completed the following requirements:

1. The College of Education examinations.
2. Home experience in those areas of home economics in which the student feels a need for additional experience.
3. Certain specified home economics courses with a grade of at least C.
4. Home economics courses required in the teaching curriculum with an honor point ratio of 1.5.

In order to be recommended for graduation from the teaching specialization, the student must have (a) a grade average of 1.5 honor points per credit in 40 credits of home economics work in the curriculum for

general home economics teaching, (b) an average of 1 honor point per credit in all other courses pursued during the junior and senior years.

By a proper selection of courses, students qualifying for the degree of bachelor of science may qualify for teaching in more than one field. This is desirable since most beginning teachers in public schools are expected to teach another subject in addition to home economics.

Four-Year Curriculum in Home Economics Education Leading to the B.S. Degree

Teaching general home economics†—The following courses are required for those preparing for teaching general home economics:

FRESHMAN COURSES

Course No.	TITLE	CREDITS
Orient. 1	College Orientation Lectures	1
H.E. 1	Choice and Care of Clothing	4
H.E. 3	Clothing Construction A	3
H.E. 17	Personal and Family Living	3
H.E. 20	Introduction to Related Art	4
H.E. 21, 22	Color and Design, I and II	6
H.E. 31	Introduction to Nutrition	3
H.E. 40	Food Preparation	5
Com. 1-2-3	Communication	9
Zool. 14-15, and Physiol. 4, or G.C. 10A-B	General Zoology Human Physiology }	6-10
G.C. 10A-B	Human Biology	3
Dy.Husb. 20	Household Microbiology (or Bact. 53)	4
Chem. 1-2, or 4-5, or 6-7, or 9-10, or G.C. 7C	General Inorganic Chemistry Physical Science II: The Nature of Chemistry }	5-10
G.C. 7A, or Agr.Eng. 35	Physical Science I: Energy and Matter }	5
Soc. 1	Household Physics }	3 or 5
Phys.Ed.‡	Introduction to Sociology	3
	Physical Education	3

SOPHOMORE COURSES

H.E. 4	Clothing Construction B	3
H.E. 27	Related Art Problems	3
H.E. 34	Nutrition Problems (or 170, 171)	4-6
H.E. 41	Food Management and Marketing	5
H.E. 49	Household Equipment	3
Psy. 1-2	General Psychology	6
H.E.Ed. 90	Child Training	3
Rhet. 22	Public Speaking	3
Rhet. 31, or 32, or Rhet. 33	Survey of English Literature I or II (or Rhet. 60) or American Life in American Literature	3 or 5 3
Bact. 53	General Bacteriology (or Dy.Husb. 20)	4 or 5
Agr.Biochem. 1	Introduction to Organic Chemistry	5
Agr.Econ. 3, or Econ. 6-7	Principles of Economics }	5 or 10
	Principles of Economics }	5 or 10

JUNIOR AND SENIOR COURSES

H.E. 50	Textiles	3
H.E. 53	Advanced Clothing	3
H.E. 76	Nutrition (or 34 or 170, 171)	3-6
H.E. 85	Home Management: Principles	3
H.E. 86	Home Management: Laboratory	4
H.E. 170-171	Nutrition of the Family, Child Nutrition (or H.E. 34)	6
H.E. 180	Home Planning and Furnishing	5
P.H. 52A-B	Health Care of the Family (lect. 2 cred.; lab. 1 cred.)	3
P.H. 59	Health of the School Child	3
Rhet. 51	Exposition (exemption by examination)	3

† For the General Home Economics Teaching specialization a grade of at least C is required for the following courses: H.E. 3, 4, 21, 22, 27, 34 (or 76 or 170), 40, 41.

‡ This requirement may be completed any time during the four years of residence. See also footnote under Home Economics Extension, page 48.

COURSE No.	TITLE	CREDITS
Rhet. 60	Contemporary Literature (or Rhet. 31 or 32 or 33)	3
Ed. 55A-B	Introduction to Secondary School Teaching	10
Agr.Econ. 126	Economics of Consumption	3
H.Ed. 180	The School and the Social Order	3
H.E.Ed. 90	Child Training	3
H.E.Ed. 91†	Observation, Materials, Teaching in Home Economics	5
H.E.Ed. 92	Teaching Problems in Home Economics	2
H.E.Ed. 93, 94†	Supervised Teaching in Home Economics	9
H.E.Ed. 192	Evaluation in Home Economics	2
H.E.Ed. 194A	Adult Education in Home Economics	3

Additional social science credits, beyond those required above, should be taken to meet the 18-credit requirement. These may be selected from anthropology, economics, geography, history, humanities, political science, philosophy, or sociology. See all-college requirements in the *Bulletin of the College of Agriculture, Forestry, Home Economics, and Veterinary Medicine*.

Those whose interests lead them into further specialization in the teaching field may choose one of the following groups. The student should plan her program early in her college course to be certain that she has the necessary prerequisites.

Teaching textiles and clothing—To the requirements in general teaching add:

COURSE No.	TITLE	CREDITS
H.E. 54	Problems in Clothing Construction	3
H.E. 102	Advanced Textiles	3
H.E. 115	Economic and Social Aspects of Clothing	3
H.E. 120	Art History	3
Bot. 1	General Botany	4

Teaching foods—To the requirements in general teaching add:

H.E. 45	Quantity Cookery	6
H.E. 142	Experimental Cookery	3
H.E. 146	Special Food Problems	3
Agr.Biochem. 2	Quantitative Methods	5

Teaching nutrition—Omit from the requirements in general teaching the following courses: H.E. 3, 4, 21, 22, 27, 53, 180, G.C. 10A-B, 7A-C, and Agr.Econ. 126.

To the requirements in general teaching add:

H.E. 24	Problems in Home Planning and Furnishing	5
H.E. 142	Experimental Cookery	3
H.E. 173	Nutrition in Disease	4
H.E. 179	Readings in Nutrition	2

Teaching related art—Those interested in teaching related art should:

1. Select the minimum credit requirement in science when there is an option.
2. Omit Agr.Econ. 126.
3. Add the following:

COURSE No.	TITLE	CREDITS
H.E. 23	Advanced Design	3
H.E. 25	Design Applied to Crafts	3
H.E. 120	Art History	3
H.E. 122 or	Advanced Interior Design	3
H.E. 125	Advanced Costume Design	3
H.E.Ed. 197	Organization and Methods for Related Art Teaching	1-3

Six credits in art from the following:

Art 1	Introduction to Art	4
Art 20, 21	Drawing and Painting I	2 a qtr.

† Plans for the home experience prerequisite for H.E.Ed. 91 and 93 should be made with adviser in home economics education.

Home economics extension—A combined curriculum with the College of Education. See all-college requirements for students in the College of Agriculture, Forestry, Home Economics, and Veterinary Medicine.

Some students will be interested in preparation for home economics positions in the Agricultural Extension Service, such as home agent, 4-H Club agent, or homemaking specialist.

The student following this curriculum should be one who has a real interest in rural life and rural people and has ability to get along well with them. A sense of humor, good health, a high degree of initiative, good standards for personal appearance, good judgment, and ideals for rural family living are important qualities for the extension worker. Organization ability and clear expression of ideas, written and oral, are necessary. She should be a person alert to social situations and the need and willingness for continuous learning on a job. Residence in rural areas and some contact with extension work before coming to college are desirable in order that the student will have an understanding of farm conditions.

This curriculum is planned to give the future worker understandings and skills in homemaking activities, an understanding of physical and social science as it relates to rural areas, use of oral and written materials, ability for administration and organization of adult and youth programs, an understanding of educational principles and techniques suitable for rural groups.

An organized program of home experience must be completed before the end of the junior year. This should be planned and approved by the member of the Home Economics Education section responsible for teacher training of adults.

Students following this curriculum will receive guidance from a committee of the Home Economics Extension Service and the home economics education faculty. Qualified students will be recommended for a period of supervised pre-extension field experience to be arranged during the summer following the junior year. Approval for this field service must be secured from the director of the Agricultural Extension Service.

Those in this curriculum should:

Omit from the requirements in general home economics teaching the following courses: H.E. 53, Agr.Biochem. 1, Rhet. 51, H.E.Ed. 92, 94, 192, Agr.Econ. 126.

Add to the requirements in general home economics teaching: †

COURSE No.	TITLE	CREDITS
Soc. 2	Intermediate Sociology	5
or Soc. 14	Rural Sociology	3
or Soc. 91	Case Method Applied to the Study of Human Problems	3
or Soc. 95	Introduction to Public Welfare	3
or Soc. 140	Social Organization	3
Agr.Jour. 53	Publicity	3
H.E.Ed. 95	Field Experience for Home Agents	6
H.E.Ed. 194A	Adult Education in Home Economics	3
Agr.Econ. 8 or	Rural Economics	}
Agr.Econ 126	Economics of Consumption	

Five-Year Curriculum Leading to the Master of Education Degree

A five-year program in home economics education, leading to the master of education degree is provided for those who wish to make additional preparation prior to their entrance upon teaching and for those who wish to continue their professional work following the completion

† The required 3 credits in physical education are to be chosen from the Dance (country, folk, modern, or social) and recreational games.

of the requirements for a Bachelor's degree. The five-year curriculum qualifies a person for high school teaching and for some college positions. The attainment of added training should facilitate professional promotion.

The best results may be anticipated when plans for the extended training are made during the student's junior year in residence so that the fifth year may be integrated with the four-year program. The student should plan her program under the direction of a member of the graduate faculty in home economics education.

Satisfaction of part of the education requirement may be made through internship in a home economics department in a secondary school. The internship will include full-time work for one quarter in a home economics department in a secondary school off the campus. The intern will work under the supervision of her adviser at the University and will return to the campus regularly for Saturday morning conferences which will deal with classroom, extracurricular, and community problems met during the internship.

In addition to the general requirements for the M.Ed. degree, the student must meet the specific requirements for the degree in this field, as follows:

Additional academic courses	8-24
Home economics	17-25
General education	4-9
Home economics education	5-9
Certification of competence in teaching in the major field.	

Students with a Bachelor's degree with a major in home economics education from other accredited institutions, upon fulfilling the requirements or their equivalents of the five-year curriculum, will receive the master of education degree with a major in home economics education.

INDUSTRIAL EDUCATION

Major advisers, Professor Homer J. Smith;
Associate Professor William J. Micheels

The following curriculum has been designed for persons who desire to prepare for teaching positions in the fields of industrial education and to gain background for later courses of administrative and supervisory nature. The satisfactory completion of the four years of work here specified entitles the student to the bachelor of science degree and provides the training necessary for the Minnesota high school standard special certificate.

Certain departmental courses of professional or classroom type are acceptable for vocational certification under the Smith-Hughes and George-Barden federal acts for service in trade schools and classes—day, evening, and part-time. The state supervisor of Trade and Industrial Education assures himself of the vocational competence of candidates and those approved take certain professional courses to complete requirements. Special certificates are issued by the State Department of Education. Industrial arts certificates and vocational industrial certificates are based upon wholly different preparations, and should not be confused.

The Department of Industrial Education, in addition to the campus schedules, conducts off-campus courses in centers scattered throughout the state. These offerings are made through cooperation of officials in the State Department of Education. Such courses may be had with fee and credit or without fee and credit, according to demand, but a given class or group must be of one or the other type rather than mixed as to status. Services of the department are available to industrial groups, such as

foremen and personnel officers who have instructional responsibilities, and to public school authorities.

The four-year curriculum is as follows:

FRESHMAN YEAR

COURSE No.	TITLE	CREDITS
Com. 1-2-3	Communication (or Comp. 4-5-6 or G.C. 31A-B-C)	9-12
Soc. Sci. 1-2-3	Introduction to Social Science	12
Ind. 1	Basic Woodwork	3
Ind. 2	Machine Woodwork	3
Ind. 5	Basic Drawing	3
Ind. 10	Basic Electricity	3
Ind. 15	Basic Graphic Arts	3
Ind. 20	Craft Work—A	3
Agr.Eng. 40	Mechanical Training	3
Phys.Ed. 1-2-3	Sports Education	3

SOPHOMORE YEAR

G.C. 8	Fundamentals of Mathematics (or Math. 1, 5 credits)	4
Psy. 1-2	General Psychology	6
Geog. 4	Human Geography	5
Nat.Sci. 1-2-3	Orientation in Natural Sciences	15
Ind. 60	Philosophy of Vocational Education	2
Ind. 61	Practices in Vocational Education	2
Ind. 80	Introduction to Industrial Arts	2
Ind. 6	Applied General Drawing	3
Agr.Eng. 41	Metal Work	3
	Carpentry	3
	Electives in shopwork and drawing	3

JUNIOR YEAR

Hum. 1-2-3	Humanities in the Modern World	15
Ed. 55A-B	Introduction to Secondary Education	10
Ind. 40	Analysis	2
Ind. 42	Course Organization	3
Ind. 44	Equipment and Management	3
Ind. 70	Teaching of Industrial Subjects	3
Ind. 50A†	Student Teaching	3
Ind. 25	Machine Shop	3
	Foundry Practice	3
	Electives in shopwork or drawing	3

SENIOR YEAR

H.Ed. 180	The School and the Social Order	3
P.H. 50	Public and Personal Health (or P.H. 3 and 4)	3
P.H. 59	Health of the School Child	3
Ind. 50B-C	Student Teaching	6
Ind. 101	Tests in Industrial Subjects	3
Ind. 110	Vocational Guidance	3
	Electives in academic courses	18
	Electives in shopwork or drawing	6

A degree candidate is privileged to complete his work under the curriculum form which was current when he entered. Those who can accept the form herewith will find it more convenient.

The C+ average is based on all courses in industrial education. Shop and drawing courses may be included.

Many of the required and elective courses may be pursued through extension and correspondence study arrangements. All required courses are brought into the summer programs by rotation.

It is recommended that elective academic courses be selected toward the completion of minors in chosen subject fields.

Requirements above are classified as follows: 90 credits in academic subjects, 25 in education, 23 in industrial education, 48 in shopwork and drawing. Total credit requirement, 186.

† Prerequisites are senior status, taking of psychological examination, courses Ind. 70 and 80, and a C+ average (1.5 honor points per credit) in the major.

Other courses offered by the department are listed under Description of Courses, pages 113 to 116.

Fifth Year Leading to the Master of Education Degree

The College of Education awards the master of education degree (M.Ed.), under two different plans to students who satisfactorily complete a fifth year of work in industrial education and who meet all the requirements of the college for the professional degree.

The Graduate School provides the M.A. degree with major work in this field, with and without thesis, Plans A and B. Persons desiring to do work beyond the Master's degree are invited to confer or to correspond with major advisers.

JOURNALISM

Minor adviser, Associate Professor Fred L. Kildow

Journalism is a desirable minor for teachers who are called upon to supervise the school paper and to teach subjects related to the field. It is recommended as a minor for students in the language arts and social studies curricula and as a *second* minor for those with an English major.

Journalism as a minor subject:

COURSE No.	TITLE	CREDITS
Jour. 11	Introduction to Reporting	3
Jour. 41	Editing for Nonmajors	3
Jour. 69	Newspaper and Magazine Articles	3
Jour. 82	Supervision of School Publications	3

Nine additional credits chosen from Jour. 55, 90, 103, 111, 120, 121, and 130. Ed.T. 74, The Teaching of Journalism, is also required.

THE LANGUAGE ARTS

Major advisers, English: Professor Dora V. Smith, Assistant Professor Harold B. Allen; Speech: Professor Howard Gilkinson, Assistant Professor Kenneth L. Graham

The new course of study in the language arts for the secondary schools of Minnesota requires a teacher proficient in the broad area of the language arts, including both speech and English. It assumes ability to teach the principles of effective speech and writing and intelligent understanding of currently acceptable levels of usage and of the processes of linguistic change. It necessitates knowledge of current books as well as the literary heritage. It demands acquaintance with and intelligent use of the mass media of communication, such as radio, newspaper and magazine, motion picture, and television.

In the small school, also, the teacher of the language arts must be able to direct plays, to supervise the school paper, and sometimes to assist with the library.

The following program permits the prospective teacher to prepare for such a diversified assignment as well as to secure broad cultural training for himself.

It is important that teachers of language arts support this major with a strong background in general culture and social studies. A minor in some area outside the language arts is not required but would be a valuable addition to the teacher's preparation.

The student registers in the College of Science, Literature, and the Arts for the first two years and should include in his program the required junior college courses of the curriculum. Com. 1-2-3, Communica-

tion, is recommended in place of Freshman English A-B-C, but not required. He will be held for all the general requirements of the College of Education including public health, and for the required professional courses for secondary school teaching. In addition he must take Ed.C.I. 122, Literature for Adolescents, 2 credits, which will count in the professional requirement. It is recommended that language arts majors supplement their academic program with extracurricular speech activities.

The requirements of the curriculum are as follows:

1. The student selects one of the two fields, English or speech, and completes the course requirements listed for his *core subject*. A student may not offer more than 42 credits in this field.
2. The student must also complete 23 or 24 credits in the second field. Not more than 30 credits will be accepted in this field.
3. In addition 12 or 13 credits are required in journalism or library science, or in both. This requirement is listed *Journalism and Library Science*.

English

English as the core subject, 34 credits:

COURSE No.	TITLE	CREDITS
Eng. 22-23	Introduction to Literature	10
Eng. 55-56	Shakespeare	6
Eng. 73-74	American Literature	6
Eng. 165	Introduction to Modern English	3
Comp. 27-28	Advanced Writing	6
	Elective in a course numbered 100 or above	3

English as the second field with speech as the core subject, 23 credits:

Eng. 23, 73-74, and 165; Comp. 27-28; and Eng. 57, Shakespeare for Language Arts Minors, 3 credits.

Speech

Speech as the core subject, 35 or 36 credits:

COURSE No.	TITLE	CREDITS
Sp. 1-2 or 5	Fundamentals of Speech	5-6
Sp. 31	Introduction to the Theater	3
Sp. 67. or	Phonetics	3
Sp. 119	Introduction to Speech Correction }	
	Electives	24

Electives may be selected from the following courses with not less than 9 credits in each area. For descriptions of these courses and the ones listed under *Journalism and Library Science*, consult the *Bulletin of the College of Science, Literature, and the Arts*.

1. Public Address and Speech Science: Sp. 51, 55, 56, 57, 61, 67, 97, 101, 102, 103, 106, 119, 143, 169.
2. Theater and Interpretation: Sp. 32, 33, 66, 71, 72, 73, 81, 82, 131.

Speech as the second field with English as the core subject: Sp. 1-2 or 5 and 31; and 15 credits of electives with not less than 6 credits in each of the two core subject areas.

Journalism and Library Science

All language arts majors will take Jour. 90, Mass Communications and the News, 3 credits. In addition they will take 9 or 10 credits in either library science or journalism. Course requirements are Lib. 60, 62, 70 and 74; or 9 credits selected from Jour. 11, 41, 82, 103, 109-110, 111, 120, 121, and 130-131.

LATIN

Major adviser, Professor Norman J. DeWitt

Latin as a major subject for high school teaching:

COURSE No.	TITLE	CREDITS
Lat. 73	Prose Composition	2
Lat. 81-82-83	Survey of Roman Literature	9
Lat. 111-112-113	Advanced Prose Composition	6
Hist. 14A-15A-16A	Ancient Civilization with Basic Readings	15

Latin as a minor subject:

Lat. 73	Prose Composition	2
Lat. 81-82-83	Survey of Roman Literature (any quarter)	3
Hist. 14A-15A-16A	Ancient Civilization with Basic Readings	15

Sequence of courses in Latin—Students who have had no Latin in high school will take Courses 1, 2, 3, 30 and 40 leading to the 81-82-83 sequence. Students entering the University with one year of high school Latin may, with the permission of the department, take Latin 1 and 2 for credit, or they may enter Latin 3. Students entering with two years of Latin may, with permission of the department, take Latin 1, 2, and 3 for credit, or they may enter Latin 21, followed by 30 and 40. Students entering with three years of Latin may take 30 and 40, or, with the permission of the department, enter the sequence 81-82-83. Students with four years of Latin may enter 81-82-83 directly.

The first two years are taken in the College of Science, Literature, and the Arts and students meet the group requirements of that college. They should include in their programs the Junior College courses in Latin prerequisite to registration in Latin 81-82-83. The general and professional requirements of the College of Education are described on pages 7 to 12.

LIBRARY SCIENCE†

Major advisers, Professor Errett W. McDiarmid;
Associate Professor C. Irene Hayner

The following curricula have been arranged in cooperation with the Division of Library Instruction to offer professional library education to persons who desire to do library work in elementary and secondary schools:

1. A four-year program leading to the degree of B.S. with a major (36 credits) in library science.
2. A minor of 23 credits in library science for students desiring to fill positions as teacher-librarians.
3. A five-year program leading to the degree of B.S. in L.S. (bachelor of science in library science).
4. A program leading to the Master's degree with a major in library science offered in the Graduate School.

In each of the first three programs, students qualify for a teaching certificate by completing requirements for a major or two minors in subjects commonly taught in Minnesota high schools. It is usually advisable for students with a major or minor in library science to combine with it a major or minors in English, language arts, history, or social studies. Such students are required to take special methods and student teaching in the major or one of the minors.

† Prospective students who are interested in the curriculum should obtain the special bulletin issued by the Division of Library Instruction.

Graduates of the College of Education or other four-year teacher training institutions who already hold a Bachelor's degree and a teaching certificate may, upon completion of 45 credits in library science and approved related subjects, be eligible for the degree of B.S. in L.S. Application for admission to the program must be made to the Student Personnel Office of the College of Education *at the time of entrance* in order to become candidates for a degree.

An average grade of C+ based on the 45 credits of library science must be maintained for graduation.

The tuition fees for full-time students who are enrolled in this specialized curriculum are \$42 per quarter for residents of Minnesota and \$75 per quarter for nonresidents. Unclassed students, auditors, and others carrying less than full work in library instruction (15 credits per quarter) pay a tuition fee of \$3.50 per credit for residents and \$6.25 per credit for nonresidents, for all courses under the supervision of the Division of Library Instruction, irrespective of their registration in courses in other subjects.

Four-Year Program Leading to the Bachelor of Science Degree

Students should enroll in the College of Science, Literature, and the Arts and fulfill the general requirements for entrance to the College of Education, earning a total of 96 credits. By the end of the junior year they must have completed sufficient work in their teaching major or two minors to be eligible for student teaching.

JUNIOR YEAR

COURSE No.	TITLE	CREDITS
Lib.Sci. 50	Libraries and Society	3
Lib.Sci. 60	Sources of Information about Library Materials	3
Lib.Sci. 62	Reference I	2
Lib.Sci. 63	Reference II	3
Lib.Sci. 81	Theory of Bibliography	2
Lib.Sci. 82	Cataloging and Classification	4
Ed. 55A-B	Introduction to Secondary School Teaching	10
	Elective or required courses in education	2-5
P.H. 59	Health of the School Child (Prereq. P.H. 3 and 4, or 50)	3
	Continuation of required and elective academic courses including courses in a teaching major or two minors	10-15

SENIOR YEAR†

Lib.Sci. 153	Principles of School Library Organization and Management	4
Lib.Sci. 171	Principles and Problems in Reading Guidance for Children	3
Lib.Sci. 172	Principles and Problems in Reading Guidance for Adolescents	3
	Special Methods and Student Teaching	11
H.Ed. 180	The School and the Social Order	3
	Electives in library science and academic courses	18
	Electives in education (if not taken previously)	3

Minor in Library Science

For a minor in library science students should take Lib.Sci. 60, 62, 82, 153, and 171 or 172 and additional courses to total 23 credits.

Five-Year Curriculum for the Degree of Bachelor of Science in Library Science with a Teacher's Certificate

Students enroll in the College of Science, Literature, and the Arts and fulfill the general requirements for entrance to the College of Education, earning a total of 96 credits. By the end of the junior year they

† Taking the psychological examinations and a C+ average (1.5 honor points per credit) in the major are prerequisites to these courses.

must have completed sufficient work in their teaching major or two minors to be eligible for student teaching.

JUNIOR YEAR

COURSE No.	TITLE	CREDITS
Lib.Sci. 50	Libraries and Society	3
Lib.Sci. 60	Sources of Information about Library Materials	3
Lib.Sci. 62	Reference I	2
Lib.Sci. 63	Reference II	3
Ed. 55A-B	Introduction to Secondary School Teaching	10
P.H. 59	Health of the School Child	3
	Continuation of required and elective academic courses including courses in a teaching major or two minors.....	21

SENIOR YEAR*

Lib.Sci. 70	Reading Guidance	3
Lib.Sci. 81	Theory of Bibliography	2
Lib.Sci. 82	Cataloging and Classification	4
	Special Methods and Directed Teaching	11
H.Ed. 180	The School and the Social Order	3
	Elective courses in education	4
	Continuation of required and elective academic courses to total 186 credits	18

FIFTH YEAR

Lib.Sci. 153	Principles of School Library Organization and Management	4
Lib.Sci. 171	Principles and Problems in Reading Guidance for Children	3
Lib.Sci. 172	Principles and Problems in Reading Guidance for Adolescents	3
	Elective courses in library science	15
	Continuation of required and elective academic courses	15
	Elective courses in education	5

MATHEMATICS

Major adviser, Professor W. L. Hart

Students take the first two years in the College of Science, Literature, and the Arts and meet the Junior College requirements of that college. They should include in their programs the Junior College courses listed below. The general and professional requirements of the College of Education are described on pages 7 to 12.

Mathematics as a major subject:

Prerequisite courses: Solid Geometry (entrance credit or its equivalent) †; Higher Algebra taken either in high school or college. Mathematics 20 (The Mathematics of Investment) is strongly recommended as an elective. With the permission of the major adviser Math. 15-16, Elementary Mathematical Analysis, 10 credits, may be accepted for Math. 6 and 7. Math. 49, 50a, and 51a may be substituted for 30, 50, and 51 without special permission.

COURSE No.	TITLE	CREDITS
Math. 6	Trigonometry	5
Math. 7	College Algebra	5
Math. 30	Analytic Geometry	5
Math. 50	Calculus I—Differential Calculus	5
Math. 51	Calculus II—Integral Calculus	5
	Additional credits in courses numbered over 51	8

* Taking the psychological examinations and a C+ average (1.5 honor points per credit) in the major are prerequisites to these courses.

† Those who did not present solid geometry for entrance may meet this requirement in one of the following ways: (1) by taking the subject in the General Extension Division in night school or by correspondence study; (2) by passing a college entrance examination or a special examination given by the Department of Mathematics. The student is advised to satisfy this requirement at least two quarters before graduation.

Mathematics as a minor subject:

Prerequisite courses: Solid Geometry (entrance credit or its equivalent) †; Higher Algebra taken either in high school or college. With the permission of the adviser Math. 15-16 may be accepted for Math. 6 and Math. 7. Math. 49 and 50a may be substituted for 30 and 50 without special permission.

COURSE No.	TITLE	CREDITS
Math. 6	Trigonometry	5
Math. 7	College Algebra	5
Math. 30	Analytic Geometry	5
Math. 50	Calculus I—Differential Calculus	5
	Additional credits in courses numbered over 50	3

MUSIC EDUCATION

Major advisers, Professor Paul M. Oberg; Associate Professor Robert W. Winslow; Assistant Professor Paul Ivory

The course in music education is a four-year course leading to the degree of bachelor of science, in which the theoretical and practical courses in music are combined with a general education and professional training. The object is to provide a well-rounded course for candidates for the bachelor of science degree in music education.

For graduation, students must earn 186 credits and 186 honor points. They must earn 24 credits in Practical Music (11-27), 18 of which shall be the minimum requirement for their major subject and 6 of which must be in a second field other than the major. Students not majoring in piano shall be required to take one year of Piano (11 or 11C), 2 credits per quarter, exemption dependent upon entrance examination. Students not majoring in voice will be required to take one year of Voice (12 or 12C), exemption dependent upon entrance examination. It is recommended that the practical music requirements be met by the end of the junior year.

A teaching minor in one academic secondary school subject is required of all music education students for graduation. English, history, languages, and social studies are suggested. For advice concerning minors, see departmental advisers.

In addition to the practical and theoretical studies in music, this course includes such cultural subjects as English, psychology, sociology, and history, and the professional courses which are prescribed by the College of Education. The music studies are distributed between the instrumental and vocal courses so that, on graduation, a student is prepared to be an instrumental music instructor, vocal music instructor, or general supervisor of school music.

Observation and student teaching are provided for in the Minneapolis and St. Paul grade schools, and in the Minneapolis, St. Paul, and University high schools.

Courses upon which the required C+ average is based are Mu.Ed. 4-5-6, 50A-B, 53, 59, 65, 67, 68; Mu. 1T-2T-3T-4T-5T-6T, and 60 or 61 or 62 or 63.

Following are the specific regulations and requirements applying to this curriculum.

For entrance—All students wishing to register for the course in music education must, upon matriculation, choose a major in applied music, and

† Those who did not present solid geometry for entrance may meet this requirement in one of the following ways: (1) by taking the subject in the General Extension Division in night school or by correspondence study; (2) by passing a college entrance examination or a special examination given by the Department of Mathematics. The student is advised to satisfy this requirement at least two quarters before graduation.

pass an entrance examination in that major, before a committee of the faculty of the Music Department. Entrance requirements for a major are:

Piano—Any minor or major scale in octaves, thirds, sixths, or tenths, M.M. quarter notes—108; Bach Invention, or dances 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 and also have a promising voice. Some knowledge of piano is urgently recommended.

Violin—Major and minor scales, arpeggios; the simple Kreutzer *Etudes*; a sonata by Handel, Haydn, Mozart, or Schubert; a more modern work displaying special technique peculiar to the violin.

Organ—Same as piano. Students not majoring in piano will be examined concerning requirements to be met in piano.

Fees—For statement of special fees see Music in the *Bulletin of the College of Science, Literature, and the Arts*.

Four-Year Curriculum in Music Education

FRESHMAN AND SOPHOMORE YEARS

COURSE No.	TITLE	CREDITS
Com. 1-2-3	Communication (or Comp. 4-5-6 or A-B-C)	9-12
Mu. 1T-2T-3T-4T	Music Theory	21
5T-6T	Choral Literature and Conducting	1
Mu.Ed. 59	Physical Education	3-5
	Practical Music	12-18
Psy. 1-2	General Psychology	6
Mu.Ed. 4-5-6	Applied Instrumental Technique	6
Mu. 34-35-36	History of Music	6
Hist. 11-12-13	Medieval History	9
or 1-2-3	Civilization of the Modern World	9
Soc. 1	Introduction to Sociology	5
P.H. 3	Personal Health	2
P.H. 4	Health Problems of the Community	2
	Academic electives to complete total of 96 credits.	

JUNIOR AND SENIOR YEARS

Mu.Ed. 50A	Teaching Music in the Primary Grades	2
Mu.Ed. 50B	Teaching Music in the Intermediate Grades	2
Mu.Ed. 53	Teaching Music in Secondary Schools	3
Mu.Ed. 65	Instrumentation	3
Mu.Ed. 59	Choral Literature and Conducting	3
	(Junior year one credit—senior year two credits)	
Mu. 60 or 61 or 62	Instrumental or Vocal Ensemble	2
Mu. 76	Form and Analysis	3
Mu. 40-41-42 or	Orchestra	3
43-44-45 or	University Chorus	
46-47-48	Concert Band (Maximum of 6 credits in Band)	
	Practical Music	6-12
Ed. 55A-B	Introduction to Secondary School Teaching	10
Mu.Ed. 67	The Teaching of Instrumental Music in Elementary Schools	2
Mu.Ed. 68	Conducting of Instrumental Music and Survey of Materials	2
Mu.Ed. 60-61-62	Supervision and Teaching of Music	9
H.Ed. 180	The School and the Social Order	3
P.H. 59	Health of the School Child	3
	Electives in Education	2 or 3
	Methods in academic minor	3
	Academic electives to complete total of 186 credits.	

Minor in Music Education

A minimum of 25 credits in music and music education to include the following subjects:

COURSE No.	TITLE	CREDITS
Mu. 1T-2T	Music Theory	6
Mu. 36	History of Music	2
Mu.Ed. 50A	Teaching Music in the Primary Grades	2
or 50B	Teaching Music in the Intermediate Grades	2
or 53	Teaching Music in Secondary Schools	3
Mu.Ed. 4-5 or 6	Applied Instrumental Technique	2-4
Mu. 11-27	Practical Music	2-6

The remaining credits to be selected from the following courses:

Mu. 40-41-42	Orchestra	6
or 43-44-45	University Chorus	1-3
Mu. 60, 61, 62	Instrumental Ensemble	2
or 63, 64, 65	Vocal Ensemble	2
Mu.Ed. 68	Conducting of Instrumental Music and Survey of Materials	4
or 59	Choral Literature and Conducting	2
or 55	Survey and Evaluation of Vocal Materials and Methods	4

Five-Year Curriculum Leading to the M.Ed. Degree

The five-year curriculum in music education leading to the master of education degree is designed to give a higher standard of professional competence in music as well as a larger scope of general academic education. It includes about two years of general education, a minor in a teaching field other than music, more adequate training in applied music, advanced phases of musical theory or musicology at the graduate level, work in music education covering both vocal and instrumental music, basic courses in psychology, educational psychology, and education, and supervised institutional practice teaching plus one quarter of internship.

The work of the fifth year is integrated with that of the first four years described above. The fifth year will provide opportunity for those interested to concentrate in either vocal or instrumental music if they desire to do so. Encouragement will be given to those students possessing outstanding talents in music and demonstrated scholastic ability.

Students with a Bachelor's degree with a major in music education from other accredited institutions, upon fulfilling the requirements or their equivalents of the five-year course, will receive the master of education degree with a major in music education.

In addition to the honor point requirements for the four-year curriculum an honor point ratio of 2 (a B average) must be attained in all fifth year work. The work of the fifth year is described below.

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 in the Graduate School.

Electives in academic major or minor (or closely related field), 9 to 17 credits. Courses must be numbered 100 or above.

Music major, 12 credits elected from the following:

COURSE No.	TITLE	CREDITS
Mu. 200-201-202	Basis of Musical Expression	3, 6, or 9
Mu. 205-206-207	Composition in Larger Forms	3, 6, or 9
Mu. 209-210-211	Advanced Topics of Musical Analysis	3, 6, or 9
Mu. 212	Special Problems in Music	3, 6, or 9

Music Education, 10 credits elected from the following:

Mu.Ed. 103E	Psychological Foundations of Music Education	3
Mu.Ed. 104E	Advanced Topics in Vocal Music Education	3
Mu.Ed. 105E	Advanced Topics in Instrumental Music Education	3
Mu.Ed. 224E	Seminar and Individual Research Problems in Music Education	2-6
Ed.C.I. 199E	Optional Internship and Seminar	4-8

Education, 6 credits elected from the following:

COURSE No.	TITLE	CREDITS
Ed.Psy. 293	Psychology of Learning	3
Ed.C.I. 113 or	High School Curriculum	3 or 4
Ed.C.I. 119	Elementary School Curriculum }	
Ed.C.I. 150 or	Supervision and Improvement of Instruction }	3
Ed.C.I. 266	High School Supervision	

Other education courses from the various departments may be substituted with the permission of the adviser. Recommended are courses in elementary school supervision, adolescent psychology, measurement, public school administration, and guidance.

NATURAL SCIENCE

General advisers, Professor Palmer O. Johnson, Assistant Professor Clarence H. Boeck; special advisers, Botany: Associate Professor Allan H. Brown; Chemistry: Assistant Professor Clarence H. Boeck; Physics: Professor J. William Buchta; Zoology: Professor Palmer O. Johnson

Students preparing to teach science in Minnesota high schools must qualify to give instruction in two or more sciences, since almost all positions open to graduates require teaching in at least two fields. As a matter of fact, most Minnesota schools now require instruction in general science and biology and an increasing number of schools offer generalized physical and biological science courses in the senior high school for which the teacher must be trained in both biological and physical sciences. The following special curriculum in natural science is for those persons preparing for the teaching of junior and senior high school science.

Students register for the first two years in the College of Science, Literature, and the Arts and complete the group requirements of that college. They should also include in their program the Junior College courses of this curriculum in so far as possible. For the general and professional requirements of the College of Education see pages 7 to 12.

Requirements for the Major in Natural Science

1. Completion of a sequence of thirty hours in one of the four natural sciences: chemistry, physics, botany, or zoology. This is referred to as the core subject.
2. Completion of at least fifteen hours in another science (excepting the one chosen under 1) selected from the following: physics, geology, botany, zoology, chemistry.
3. Completion of at least ten credits in physics, botany, chemistry, and zoology when these subjects are not used to satisfy requirements 1 and 2. In addition a minimum of 5 credits in geology and 5 credits in astronomy are required.

The requirements under 1 and 2 for the several sciences are:

Group A, Botany:

COURSE No.	TITLE	CREDITS
1. Bot. 1-2-3 or 4-5	General Botany	10
Bot. 12	Plants Useful to Man	3
Bot. 50	General Plant Ecology	3
Bot. 51	General Plant Physiology	3
Bot. 52	Elementary Taxonomy	3
Bot. 53	Introductory Plant Anatomy	3
Bot. 54	Survey of the Plant Kingdom	3
2. Courses 1-2-3, or 4-5, and 6 additional credits chosen from Courses 12, 50, 51, 52.		

Group B, Chemistry:

COURSE No.	TITLE	CREDITS
1. Inorg.Chem. 9-10† or 6-7	General Inorganic Chemistry	10
Inorg.Chem. 12	Semimicro Qualitative Analysis	5
Anal.Chem. 7	Quantitative Analysis	4
Org.Chem. 61- 62-63	Elementary Organic Chemistry	11
2. Inorganic Chemistry, courses 9-10 and 12.		

Group C, Physics:

1. Phys. 7-8-9	General Physics	15
Phys. 107- 109-111	Modern Physics	6
	Electives	6
2. Courses 7-8-9.		

Group D, Zoology:

1. Zool. 1-2-3	General Zoology	10
Zool. 52	Introductory Entomology	5
Zool. 53	Fauna of the Central United States	5
Zool. 83	Introduction to Genetics and Eugenics	3
Physiol. 4	Human Physiology	4
	Elective	3
2. Courses 1-2-3 and 53		

Requirements for the Minor in Natural Science

1. Completion of at least 15 quarter hours selected from courses under requirement B in one of the four natural sciences: botany, chemistry, physics, or zoology.
2. Completion of at least 10 quarter hours in each of the sciences listed above not selected to meet the requirement in 1. In addition 5 credits in geology and 5 credits in astronomy are required.
3. Completion of Ed.T. 68M, The Teaching of Secondary School Science (3 credits).

Five-Year Program Leading to the Master of Education Degree

The College of Education offers a five-year program leading to the professional degree of master of education for teachers of natural sciences in high schools. For specific information confer or correspond with the major adviser.

NURSING EDUCATION

Major advisers, Professors Katharine J. Densford and Ruth Harrington; Instructor Rena E. Boyle

The following courses are arranged so as to indicate the minimum requirements for students wishing to secure a bachelor of science degree in the College of Education with a major in nursing. The courses are planned to prepare the student for administrative, supervisory, and teaching positions in schools of nursing, hospitals, and other health agencies.

Curriculum for Graduate Nurses Leading to the Degree of Bachelor of Science

This curriculum is open to those who meet entrance requirements of the College of Education for the nursing education programs. Applicants are required to submit their high school and nursing school records to

† Students who did not have chemistry in high school will take Chem. 6-7; others register for 9-10.

the Office of Admissions and Records for evaluation and are required to take preadmission tests. Advanced credit for the professional nursing courses will be determined by the Committee on Evaluation of Nursing Credentials, which will indicate the number of credits allowed and any additional clinical services to be completed before credit is granted. Such clinical experiences should be completed as soon as possible and must be completed before the beginning of the senior year. Forty-five credits represent approximately the average advanced standing granted for a satisfactory course of study in a hospital school of nursing; 53 credits for a course in a hospital school having its pre-nursing sciences taught in the University of Minnesota; 55 credits for graduates from three-year programs of other university schools; and 60 credits for graduates from the University of Minnesota School of Nursing. If an honor point average of 1.0 was not maintained in the basic biological sciences, however, not more than 45 credits will be granted.

Students register in the College of Education and conform to the College of Education regulation relative to total credits and honor points. Candidates must also meet the graduation requirements of the College of Education (see pages 10 to 12). They are, however, exempt from Public Health 4 and 59 of the health education requirement.

Students must meet the general education course requirements and the nursing education major course requirements as listed below. Substitutions, when needed, may be made by petition upon the recommendation of the major adviser. Minors in nursing education or in related fields may be elected.

The graduate nurse who wishes a combined program in nursing education and public health nursing should register in the College of Education and complete the courses required for the nursing education major and the courses required for the public health nursing major (see *Bulletin of the School of Public Health, Public Health Nursing*).

Advanced standing granted to graduate nurses for basic nursing courses usually places the beginning graduate nurse student in the sophomore class. Courses of a general cultural nature, courses prerequisite to education courses and to other Senior College courses should be taken in the sophomore and junior years. Programs in advanced clinical nursing should be elected in the junior year.

General Requirements

COURSE No.	TITLE	CREDITS
Com. 1-2-3, or Eng. A-B-C, or Comp. 4-5-6, or exemption	Communication Freshman English Freshman Composition	9-15
Soc. 1	Introduction to Sociology	5
Soc. 49	Social Problems	3
Psy. 1-2	General Psychology	6
C.W. 40, or C.W. 80	Child Training Child Psychology	3
Sciences	General inorganic chemistry (Chemistry 1-2, 4-5, or 6-7) and general zoology (Zoology 1-2-3, or 14-15) are highly recommended and are prerequisite to many courses in biological science. A minimum of four credits in bio- logical science is required, to be selected from the fol- lowing fields: anatomy, bacteriology, physiology, physio- logical chemistry, and zoology (other than Zoology 1-2-3 or 14-15)	4-6
	Physical education	5

Course Requirements for the Nursing Education Major

Of the following courses Ed. 55B and Nurs.Ed. 69 may be taken in the junior year. In the case of students entering the program with senior

standing, Ed. 55B and Nurs.Ed. 69 should be taken in the first quarter of the senior year. All other courses here listed should be taken in the senior year.

COURSE No.	TITLE	CREDITS
Ed. 55B	Introduction to Secondary School Teaching	5
Ed.T. 51A,B†	The Teaching of Nursing	10
Nurs.Ed. 60	Ward Administration	5
Nurs.Ed. 69	Survey of Conditions and Trends in Nursing	3
Nurs.Ed. 171	The Curriculum of the School of Nursing	3
H.Ed. 180	The School and the Social Order	3
	Elective in nursing education	3
Total		32

The graduate nurse has usually from 60 to 75 elective credits available in the B.S. curriculum. These electives may be chosen from any course offerings in the University for which the student meets the pre-requisites. It is appropriate to elect courses in natural sciences, social sciences, humanities, arts, and other fields of special interest to the student. The graduate nurse will also wish to review the elective offerings of the nursing education department and other related professional fields such as education, public health nursing, and child welfare. She may wish to elect a program of three quarters in clinical nursing or a minor in ward administration, science teaching, or child care. A description of the available minors in nursing education follows.

Course Requirements for the Ward Administration Minor

Minor adviser, Assistant Professor Margaret F. Grainger

The ward administration minor§ is designed to provide the student with theoretical background and supervised ward experience in the activities and responsibilities of the hospital head nurse.

COURSE No.	TITLE	CREDITS
Nurs.Ed. 65	Analysis of Nursing care	4
Nurs.Ed. 73	Principles of Economics in Nursing Service Administration	1
Nurs.Ed. 67 or	Field Practice in Ward Administration	6
Nurs.Ed. 167	Studies and Experience in Ward Administration	8
Total		11-13

Course Requirements for the Science Teaching Minor

Minor adviser, Assistant Professor Myrtle H. Coe

The science teaching minor is designed to provide a broad background in biological sciences for the teaching of basic sciences and clinical subjects in schools of nursing.

Students interested in this program should consult the minor adviser before beginning any program of study. The sequence of courses is such that much time will be wasted unless early and careful planning is done.

† Requirements for registration in Ed.T. 51A,B are as follows:

1. A passing grade in Ed. 55B.
2. Taking the College of Education test battery.
3. Attainment of a scholastic average of 1.5 in completed courses in the nursing education major including the field in which 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. A satisfactory rating on the required speech test.
6. Completion of required clinical experiences.

§ Enrolment is limited; permission required.

COURSE No.	TITLE	CREDITS
Ph.Ch. 50	Physiological Chemistry	4
Phys. 60	Human Physiology	6
Bact. 53 or	General Bacteriology }	5
Bact. 101	Medical Bacteriology }	
Bact. 102	Medical Bacteriology	4
Zool. 149, 150 or	Histology and Organology }	5-6
Zool. 21 or	Histology }	
Anat. 61	Histology }	
Zool. 22 or	Comparative Anatomy }	5-6
Anat. 59	Systemic Anatomy }	
Nurs.Ed. 74	Science in a School of Nursing Curriculum	5
	General Inorganic Chemistry	8
	General Zoology	6-10
Total		48-52

Course Requirements for the Child Care Minor

Minor advisers, Professor John E. Anderson;
Instructor Beulah T. Gaufeld

The child care minor is designed to prepare the student for the position of nurse in a nursery school or kindergarten.

COURSE No.	TITLE	CREDITS
C.W. 80	Child Psychology	3
C.W. 170	Parent Education	3
Ed. 71C	Introduction to Elementary School Teaching	5
Ed.T. 55	Principles of Early Childhood Education	3
Ed.T. 56	Methods and Observation in Nursery School and Kindergarten	5
Ed.T. 57, or	Nursery School-Kindergarten Laboratory in Arts, Literature, and Social Studies	5
Ed.T. 58	Nursery School-Kindergarten Laboratory in Permanent Play Materials, Music, and Science	
Ed.T. 77	Student Teaching in the Nursery School	4
Mu.Ed. 50A	Teaching Music in the Primary Grades	2
Total		30

Course Requirements for the Advanced Clinical Minor

Minor adviser, Assistant Professor Myrtle H. Coe

The advanced clinical minor is designed for those students who wish to include in their curriculum advanced study in one of the following clinical fields:

Medical Nursing	Nursing of Children	Surgical Nursing
Obstetric Nursing	Psychiatric Nursing	Tuberculosis Nursing
Operating Room Nursing	Rural Hospital Nursing	

Clinical experience is chosen to meet the needs and major interests of each student. The hourly schedule of experience is planned on an individual basis to provide the best possible clinical opportunities compatible with the schedule of academic classes. Clinical courses include patient care, lectures, conferences, seminars, and tours, as well as observation or participation in work of the out-patient department, nursery schools, settlement houses, community health agencies, special hospitals, parent study groups, and other community organizations. Clinical study is intended to emphasize scientific principles and the art of applying them to the problems of health and illness. For prerequisites of these programs see the *Bulletin of the School of Nursing*.

Although the student's program is modified in consideration of the interests and needs of the individual student, certain required courses are included in the minor unless they have been completed prior to the time

of enrolment in the minor. The minor course requirements should be taken in the junior year.

COURSE No.	TITLE	CREDITS
Nurs.Ed. 65	Analysis of Nursing Care	4
Nurs.Ed. 66	Introduction to Advanced Clinical Nursing	5
Nurs.Ed. 67 or	Field Practice in Ward Administration	6
Nurs.Ed. 167	Studies and Experience in Ward Administration	8
Nurs.Ed. 73	Principles of Economics in Nursing Service Administration	1
P.H. 100	Elements of Preventive Medicine and Public Health	5

Clinical course:

CLINICAL FIELD	COURSE No.	TITLE	CREDITS
Medical Nursing	Nurs.Ed. 33A-B	Advanced Medical Nursing	12
Obstetric Nursing	Nurs.Ed. 34A-B	Advanced Obstetric Nursing	12
Operating Room	Nurs.Ed. 55	Aseptic Technic Nursing	1
	Nurs.Ed. 40A-B	Advanced Operating Room Nursing	12
Nursing of Children	Nurs.Ed. 61A-B	Advanced Pediatric Nursing	12
	C.W. 80, or	Child Psychology	} 2-3
	C.W. 140	Behavior Problems in Younger Children	
	P.H. 108	Care of the Handicapped Child	2
Psychiatric Nursing	C.W. 132	Later Childhood and Adolescence	3
	Psy. 144-145	Abnormal Psychology	6
	Nurs.Ed. 29A-B	Advanced Psychiatric Nursing	12
Rural Hospital Nursing	Soc. 14	Rural Sociology	3
	Soc. 110	Rural Community Organization	3
	P.H. 125	The Community Health Education Pattern	3
	Nurs.Ed. 46A-B	Advanced Course in Rural Nursing	24
Surgical Nursing	Nurs.Ed. 52A-B	Advanced Surgical Nursing	12
Tuberculosis Nursing	P.H. 60	Tuberculosis and Its Control	2
	Nurs.Ed. 47A-B	Advanced Tuberculosis Nursing	17

Curriculum Leading to the Degree of Bachelor of Science and Graduate in Nursing

Students are required to complete 186 credits for graduation. The curriculum is divided into three parts: five quarters in the College of Science, Literature, and the Arts; ten quarters in the School of Nursing; three quarters in the College of Education. *This combined curriculum will be discontinued when students now registered for it in the College of Education or the School of Nursing will have completed the nursing education requirements for graduation.* For nursing education major course requirements and suggested minors see description under preceding section, Curriculum for Graduate Nurses Leading to the Degree of Bachelor of Science. For information regarding new basic professional nursing curriculum leading to a bachelor of science degree see *Bulletin of the School of Nursing.*

Graduate Study

Among the fields recommended for graduate study are education, curriculum and instruction, educational administration, educational psychology (including guidance and personnel work), history and philosophy of education, psychology, sociology, and biological sciences.

PHYSICAL EDUCATION FOR MEN

Major advisers, Professors Louis F. Keller, Carl L. Nordly, Ralph A. Piper; Lecturer Gerald B. Fitzgerald

The following curricula have been designed for men who desire to prepare for teaching, coaching and administrative positions in the field of physical education. Completion of the undergraduate major curriculum entitles a student to a B.S. degree and to a Minnesota high school standard special certificate.

Four-Year Curriculum in Physical Education for Men†

FRESHMAN YEAR

COURSE No.	TITLE	CREDITS
Com. 1-2-3	Communication (or Comp. 4-5-6 or Eng A-B-C)	12
Soc. 1	Introduction to Sociology (or Soc.Sci. 1-2-3)	5
G.C. 10A-B-C	Human Biology (or Zool. 1-2-3 and P.H. 3)	9
Phys.Ed. 4A-B-C	Fundamentals of Sports	3
Phys.Ed. 5A-B-C	Physical Education Activities	3
Phys.Ed. 32	Introduction to Physical Education	3
Phys.Ed. 25	First Aid (or Phys.Ed. 26, 27 or 59)	1
	General electives	12

SOPHOMORE YEAR

Chem. 1-2 or 4-5	General Inorganic Chemistry (or Chem. 6-7 or 9-10)	8
Sp. 5	Fundamentals of Speech (or Sp. 1-2)	5
Psy. A	General Psychology (or Psy. 1-2)	5
Phys.Ed. 6A-B-C	Intramural Sports	3
Phys.Ed. 7A-B-C	Recreational Games and Sports	3
Anat. 57	Human Anatomy (or Phys.Ed. 50)	4
Phys.Ed. 8	Tennis and Golf	1
	General electives	18

JUNIOR YEAR

P.H. 91, 92	Principles of Human Function	8
P.H. 51	Community Hygiene	3
Phys.Ed. 9A-B	Folk, Square, and American Country Dance	2
Phys.Ed. 51	Mechanics of Movement	3
Phys.Ed. 55	Methods and Materials in Physical Education	4
Phys.Ed. 56	Introduction to Community Recreation	3
Phys.Ed. 60A	Prevention and Care of Injuries	3
Ed. 55A-B	Introduction to Secondary School Teaching	10
	General electives	11

SENIOR YEAR

Phys.Ed. 60B	Athletic Training Laboratory	1
Phys.Ed. 63	Organization and Administration of Physical Education	3
Phys.Ed. 65	Adapted Physical Education	3
Phys.Ed. 66	Officiating Football and Basketball	3
Phys.Ed. 67	Football Coaching	2
Phys.Ed. 68	Basketball Coaching	2
Phys.Ed. 69	Track Coaching	2
Phys.Ed. 72	Baseball Coaching	2
Phys.Ed. 73-74-75	Directed Teaching	6
Phys.Ed. 101	Principles of Physical Education	3
P.H. 59	Health of the School Child	3
Ed.T. 83	Methods and Materials in School Health Education	3
H.Ed. 189	The School and the Social Order	3
	General electives to complete total of 186 credits.	

The C+ average is based on the following courses: Phys.Ed. 4A-B-C, 5A-B-C, 6A-B-C, 7A-B-C, 8, 9A-B, 25, 32, 51, 55, 56, 60A-B, 63, 65, 66, 67, 68, 69, 72, and 101.

Students who plan to complete the work for the bachelor of science degree and the special teacher's certificate must meet the following requirements: (1) the required courses in physical education as listed above; (2) a total of 26 credits in education including student teaching in physical education, methods in the minor, Ed. 55A-B, and H.Ed. 189; (3) at least one teaching minor which may be partially fulfilled in the required curriculum; (4) a total of 186 credits, at least 90 of which must be in academic courses carried with a C average; (5) an average of C+ (1.5 honor points per credit) in designated physical education courses, a C average in the minor, and a C average in all other courses taken during the junior and senior years.

† Physical Education 1A-B-C, sports education courses, are required of all freshmen in the College of Education except physical education majors and minors. Physical Education 2A-B-C are elective courses. See *Class Schedule* for activities and hours.

Minor in Physical Education for Men

A total of 30 credits is required as follows:

Group A, all required:

COURSE No.	TITLE	CREDITS
Phys.Ed. 5C	Physical Education Activities	1
Phys.Ed. 7A-B-C	Recreational Games and Sports	3
Phys.Ed. 55	Methods and Material in Physical Education	4
Phys.Ed. 56	Introduction to Community Recreation	3
Phys.Ed. 60A	Prevention and Care of Injuries	3
Phys.Ed. 63	Organization and Administration of Physical Education	3
Phys.Ed. 101	Principles of Physical Education	3

Group B, four credits required:

Phys.Ed. 67	Football Coaching	2
Phys.Ed. 68	Basketball Coaching	2
Phys.Ed. 69	Track Coaching	2
Phys.Ed. 72	Baseball Coaching	2

Group C, six credits required:

Phys.Ed. 5A-B	Physical Education Activities	2
Phys.Ed. 6A-B-C	Intramural Sports	3
Phys.Ed. 8	Dual Spring Sports	1
Phys.Ed. 9A-B	Rhythms	2

Graduate Study in Physical Education

Advanced work in physical education is offered in both the College of Education and the Graduate School. Students desirous of obtaining the M.Ed. degree should make application to the Office of Admissions and Records for admission to the College of Education. Those desiring to work toward the M.A. or Ph.D. degree should apply for admission to the dean of the Graduate School. An official transcript in duplicate should accompany the application in either case.

For descriptions of courses available at the graduate level, see pages 130-32.

Five-Year Curriculum Leading to the Master of Education Degree

A. Students with a B.S. degree from the University of Minnesota with a major in physical education who plan to obtain the master of education degree must fulfill the following requirements:

1. Twenty-one additional credits in courses numbered above 100 in physical education.
2. Additional courses to complete 231 credits, 90 of which must be in academic (other than education or physical education) courses. A maximum of 41 credits is allowed in education, excluding *all* courses in physical education.
3. During the last two years a minimum of 45 credits with an average grade of B in courses numbered 100 and above.
4. Each candidate is required to pass:
 - a. A written comprehensive examination covering the major in physical education.
 - b. A written comprehensive examination in education.
 - c. A health examination within one year prior to graduation.
5. A candidate may be required to pass an oral examination unless exempted on the basis of the results of his written examinations.
6. Internship experience for inexperienced teachers to include:
 - a. Teaching under the supervision of a master teacher.
 - b. Supervision by the principal and/or superintendent as well as the master teacher.

- c. Participation in school and community activities other than teaching.
 - d. Conferences with the major adviser of the M.Ed. program.
 - e. Group conferences of all interns and all advisers in charge of the M.Ed. program.
7. Substitute internship or equivalent of a practicum nature for experienced teachers when exempted from the internship requirement by the major adviser. The substitution or equivalent consists of one or more of the following:
- a. A concentrated experience.
 - b. A combination of experiences to add more meaning to theoretical courses.
 - c. A systematic service or field study.
 - d. Observation of teaching, supervision, facilities, etc.

B. Students with a Bachelor's degree with a major in physical education from other accredited institutions may receive the master of education degree with a major in physical education when the following requirements have been fulfilled:

1. Physical Education 101.
2. Twenty-one additional credits in physical education courses numbered above 100.
3. Education 55A-B, Introduction to Secondary Teaching, or equivalent.
4. Forty-five credits in courses numbered 100 and above with an average grade of B.
5. Items 4, 5, 6, and 7 listed under A above.

The transfer and University of Minnesota credits (a) should include at least 90 credits in academic (other than education) courses, (b) should not exceed a total of 41 credits in education (other than physical education) courses.

C. Students with a Bachelor's degree without a major in physical education, but with previous work or experience in physical education, may receive the master of education degree when they have satisfied the requirements listed above under B and the following undergraduate work:

	CREDITS
Personal and community hygiene	3-6
Human anatomy, physiology, applied anatomy (Mechanics of Movement, Kinesiology)	9
Physical education activities	12
Professional physical education courses other than activities	18-21
Minimum total	45

Advanced Work in the Graduate School

Graduate courses are offered leading to the following degrees:

1. The master of arts degree with a major in physical education, granted by the Graduate School. The requirements for the M.A. degree with a major in physical education are explained in the *Bulletin of the Graduate School*. Plan A requirements include a thesis; those for Plan B do not (see pages 12 to 14).
2. The degree of doctor of philosophy with a major in education, emphasizing physical education, granted by the Graduate School.

For complete statement of the M.A. and Ph.D. requirements see the *Bulletin of the Graduate School*.

PHYSICAL EDUCATION FOR WOMEN

Major advisers, Professor Gertrude M. Baker; Associate Professor Marjorie U. Wilson and Assistant Professor Dorothy L. Ericson

The Department of Physical Education for Women offers the following curricula in physical education:

1. Four-year curriculum leading to the bachelor of science degree with a major in physical education.
2. Advanced offerings leading to:
 - a. M.Ed. degree based upon either a five-year or fifth-year curriculum in the College of Education.
 - b. M.A. degree with a major in physical education in the Graduate School.
 - c. Ph.D. with a major in education and an emphasis in physical education in the Graduate School.
3. Curriculum for teaching minor in physical education.
4. Curriculum for state of Minnesota 9-credit endorsement for teaching physical education.

The curricula offered by the Department of Physical Education for Women are designed to prepare graduates for the responsible direction of physical education at the elementary, secondary, and college levels and to provide the training necessary to meet the certification standards of the state of Minnesota for teaching physical education in the elementary and secondary schools.

Students desiring to register for the professional curriculum or any of the above curricula should consult with the major advisers. Inquire at 101 Norris Gymnasium for assignment to a particular adviser.

During the first two years in the department the progress of each student in basic sports skills, posture, dance, and aquatics will be studied in terms of an individualized profile chart. Recommendations for improvement in these professional skills will be made by the adviser on the basis of skill and knowledge tests.

Four-Year Curriculum

A scholarship average of C+ (honor point ratio of 1.5) in all the physical education courses and a C average (honor point ratio of 1) in the remaining courses taken during the junior and senior years must be attained. In addition the student must have a C average for all courses taken during the four years of work.

FRESHMAN YEAR

COURSE No.	TITLE	CREDITS
Hist. 1-2	Civilization of the Modern World	6
Com. 1-2-3 or Eng. A-B-C or Comp. 4-5-6 or G.C. 31A-B-C	Communication Freshman English (or exemption) Freshman Composition Writing Laboratory }	9-15
Zool. 1-2-3 or G.C. 10A-B	General Zoology	10
Soc. 1	Human Biology	6
Phys.Ed. 20, 21, 22	Introduction to Sociology	5
Phys.Ed. 26	Physical Education Activities	9
P.H. 3	First Aid	1
	Personal Health	2

SOPHOMORE YEAR

P.H. 4	Health Problems of the Community	2
Chem. 1-2	General Inorganic Chemistry	8
Sp. 1-2	Fundamentals of Speech	6
Psy. 1-2	General Psychology	6
Phys.Ed. 40-41-42	Physical Education Activities	6
Anat. 57	General Anatomy	4
Phys.Ed. 47-48-49	Teaching Techniques in Physical Education	8

JUNIOR YEAR

COURSE No.	TITLE	CREDITS
Phys.Ed. 51	Mechanics of Movement	3
Ed. 55A-B	Introduction to Secondary School Teaching	10
P.H. 91-92	Principles of Human Function	8
Phys.Ed. 53	The Role of the Physical Educator in Recreation	3
Phys.Ed. 57A-B, 64	Teaching Techniques in Physical Education	3
Phys.Ed. 66	Advanced Physical Education	1
P.H. 59	Health of the School Child	3
Phys.Ed. 61*	History of Physical Education	3
Phys.Ed. 83	Methods and Materials of School Health Education	3
Phys.Ed. 85	Remedial Activities in Physical Education	3
Phys.Ed. 90A	Student Teaching in Physical Education	2

SENIOR YEAR

Ed.Psy. 158	Psychology of Adolescence	3
Phys.Ed. 82	Principles of Physical Education	3
Phys.Ed. 84	The Physical Education Program for the Elementary and Secondary School	3
Phys.Ed. 95	Administration of Physical Education	3
Phys.Ed. 90B-C	Student Teaching in Physical Education	6
Phys.Ed. 135	Tests and Measurements in Physical Education	3
H.Ed. 180	The School and the Social Order	3
	Education electives	4
	General electives (consult adviser)	

The following minors are suggested for majors in physical education: zoology, sociology, school health education, recreation leadership, political science, natural science.

Professional students in physical education may find desirable electives in the course offerings of the following departments: sociology and social work, child welfare, curriculum and instruction, educational administration, music, public health, home economics.

Minor in Physical Education for Women

I. Elementary and Intermediate Physical Education Skill courses, 7 credits.

Note—Recognition will be given for the physical education required for graduation. Amount of credit given will be determined by experiences in the following areas: team games, individual sports, body building, posture and conditioning, self-testing, group gymnastics, rhythm, and aquatics.

II. Physical Education course:

COURSE No.	TITLE	CREDITS
Phys.Ed. 62	Techniques of Teaching Physical Education	3

III. Health course:

Ed.T. 83	Methods and Materials of School Health Education (required)	3
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IV. Physical Education Theory courses, 9 credits:

Phys.Ed. 95†	Administration of Physical Education	3
Phys.Ed. 84	The Physical Education Program in the Elementary and Secondary School	3
Phys.Ed. 82†	Principles of Physical Education	3

V. Student Teaching, 2 credits.

VI. Electives selected from the list below, 3 credits:

Phys.Ed. 25 or 26	First Aid	1
Phys.Ed. 41	Life Saving and Water Front Safety	1
Phys.Ed. 54	Camp Leadership	3
Phys.Ed. 60	Principles of Play	3
Phys.Ed. 61†	History of Physical Education	3
Phys.Ed. 80	Principles of Rhythm	2

* Offered in Department of Physical Education for Men.

† May be taken by correspondence study (see *Learn for Living*, bulletin of the General Extension Division).

Nine-Credit State Endorsement for Teaching Part-time Physical Education

The nine-credit endorsement is based upon work in two fields—activity and theory.

I. Activity courses—4-6 credits. These courses must be selected from the elementary and intermediate skills courses and the technique courses in the major physical education curriculum. Six quarter hours are recommended. Activity courses should include work in the following:

- | | |
|-------------------------------|-----------------------------|
| A. Team sports | D. Body building activities |
| B. Individual and dual sports | E. Rhythms |
| C. Self-testing activities | |

Note—Consult the physical education adviser for selection of courses.

II. Theory courses—3-6 credits.

COURSE No.	TITLE	CREDITS
Phys.Ed. 84	The Physical Education Program in the Elementary and Secondary School	3
Phys.Ed. 95*	Administration of Physical Education	3

Fifth-Year Leading to the Master of Education Degree

Five-year program—Students who plan to obtain the master of education degree with a major in physical education should make this decision upon the completion of their second year as majors in physical education in order that the work of their next three years may be properly integrated and directed.

Fifth-year program—Students who already hold a degree and wish to qualify as candidates for the master of education degree may do so (1) by having a completed major in physical education from an accredited institution; or (2) by meeting the equivalent of a physical education major while completing the M.Ed. degree requirements. Candidates are expected to demonstrate average or above average skill in basic professional activities as attested by Motor Ability Tests and performance level reached on Individual Profile Chart.

The programs for candidates for the M.Ed. degree are arranged in conference with the departmental adviser according to the interests and backgrounds of the students. Application should be made to the Office of Admissions and Records for admission to the College of Education. An official transcript in duplicate should accompany each application.

Candidates for the master of education degree must meet the following requirements:

1. A total of 45 credits in graduate courses, distributed as follows:

General academic fields	12
Education	9
Physical Education†	24
2. Average skill in at least two activities areas in physical education, or better than average skill in at least one area.
3. The general requirements and standards of the College of Education for the completion of the work for the master of education degree (see pages 12-13).

For graduate courses offered in the department see Description of Courses, pages 136-37.

* Offered in the Department of Physical Education for Men.

† Courses in physical education numbered over 100 may be taken either in the Department of Physical Education for Women or in the Department of Physical Education for Men.

Advanced Work Leading to the M.A. and Ph.D. Degrees

The department offers courses in the Graduate School leading to the master of arts degree with a major in physical education, and to the doctor of philosophy degree in education with an emphasis on physical education. For requirements and course offerings for these degrees consult the *Bulletin of the Graduate School*. Application for admission should be made to the dean of the Graduate School.

POLITICAL SCIENCE

Major advisers, Professor Asher N. Christensen and
Assistant Professor George A. Warp

Because of the many demands made upon teachers of the social studies, because of the necessity of teaching more than one subject or general courses, and because of the difficulty of placement, students are strongly urged to follow the social studies curriculum, pages 80-82.

Students with a political science major take the first two years in the College of Science, Literature, and the Arts and meet the Junior College requirements of that college. They should include in their programs at least 15 credits in political science courses. For the general and professional requirements of the College of Education, see pages 7 to 12.

Political Science as a major subject—A minimum of 36 credits including Pol.Sci. 1-2-3, American Government and Politics, 9 credits, and not less than 18 credits in Senior College courses.

Political Science as a minor subject—A minimum of 23 credits including Pol.Sci. 1-2-3, and not less than 6 credits in Senior College courses.

PUBLIC HEALTH

Minor advisers, Associate Professors Ruth E. Grout,
Stewart C. Thomson

The minor in public health is open to elementary education majors and as an additional minor for secondary education majors. It cannot be substituted for any minor requirement in the secondary fields.

Public Health as a minor subject:

COURSE No.	TITLE	CREDITS
P.H. 50 or	Public and Personal Health }	3
P.H. 51	Community Hygiene	
P.H. 57	Health of the Infant and Preschool Child	2
P.H. 59	Health of the School Child	3
P.H. 102	Environmental Sanitation	3
Bact. 53	General Bacteriology	5
Physiol. 2 or	Elements of Physiology	4-8
Physiol. 4 or	Human Physiology	
P.H. 91-92	Principles of Human Function }	

RECREATION LEADERSHIP

Major advisers, Lecturer Gerald B. Fitzgerald;
Assistant Professor H. R. Giles

Two types of training, represented by two different programs, are offered in recreation leadership. These programs are listed as Plan I and Plan II. Both involve four years of work, lead to the B.S. degree, and are open to men and women.

Plan I. Recreation Leadership and Administration

Plan I, recreation leadership and administration, is the professional curriculum offering preparation for administrative and supervisory positions in connection with the public and private institutions. All the general requirements for graduation from the College of Education apply to this curriculum and students satisfactorily completing the program are eligible for the fifth year's work leading to the M.Ed. degree.

FRESHMAN AND SOPHOMORE YEARS

Students register in the College of Education. Lower division courses are selected from offerings in the College of Science, Literature, and the Arts, the General College, and from the four-year curricula in physical education, music education, art education, industrial education, home economics education, and agricultural education.

Group A: Natural Science, 15 credits:

COURSE No.	TITLE	CREDITS
Nat.Sci. 1-2-3	Orientation in the Natural Sciences	15
	Or 15 credits in natural science	

Group B: Psychology and Health, 8 credits:

Psy. 1-2	General Psychology	6
P.H. 3†	Personal Health	2

Group C: Social Science, 21 to 24 credits:

Soc.Sci. 1-2-3	Introduction to Social Science	12
Hist. 20-21-22	American History	9
	Or a total of 21-24 credits in the following fields: sociology, political science, economics, history, geography and social science	

Group D: English Composition, Literature, and Speech, 15 credits:

Comp. 1-2-3 or	Communication	} 9-15
Comp. 4-5-6 or	Freshman Composition	
Eng. A-B-C or exemption or	Freshman English	
G.C. 31A-B-C	Writing Laboratory	} 6-10
Sp. 1-2-3 or 5-6	Fundamentals of Speech	

Group E: Skill Techniques, 22 credits:

Music, 4 credits

Mu. 1 and	Ear Training	2
Mu. 31 or 32 or 33 or	Music Appreciation	2
G.C. 24A-B-C	Music Today	2

Arts and Crafts, 9 credits

Art 4, 5 or	General Design }	3-6
Art 43	General Crafts }	
	Courses in design or crafts	6

Dramatics, 3 credits

Sp. 31	Introduction to the Theater	3
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Games, Rhythms, and Sports (men), 6 credits

Phys.Ed. 4A-B-C	Fundamentals of Athletic Sports	2
Phys.Ed. 6A-B-C	Intramural Sports	2
Phys.Ed. 8	Dual Spring Sports	1
Phys.Ed. 9A-B	Rhythms	2
Phys.Ed. 25	First Aid	1

Games, Rhythms, and Sports (women), 6 credits

Phys.Ed. 1-2-3	College Program in Physical Education—Selected from Aquatics, Individual Sports and Rhythms	5
Phys.Ed. 25	First Aid	1

Group F: Recreation, 9 credits:

Phys.Ed. 11A-B-C	Survey of Recreation Activities	3
Phys.Ed. 23A-B-C	Introduction to Recreation Leadership	3
Phys.Ed. 49	Social Aspects of Leisure	3

† Requirement may not be met by exemption examination.

Group G: General electives to total 96 credits.

Students transferring from other institutions who desire to major in recreation will be permitted some deviation from the lower division pattern listed above, but must meet specific course requirements in Groups B, E, and F unless exempted by the major adviser in recreation and the Students' Work Committee.

All students desiring to enter or to continue in the recreation leadership major, which begins with the junior year, must have in addition to the course requirements the following: (1) a passing mark in the special entrance examination in recreation, and (2) experience for at least one summer as a play leader or camp counselor.

Students who transfer from other institutions desiring to major in recreation may register in that curriculum in the fall quarter, but with the provision that this is a tentative registration only. Application should be made only when the student has some assurance of meeting the entrance requirements (1) and (2) above.

A student may graduate with or without a teaching certificate. No teaching certificate is used for the recreation major, and may be obtained only by including preparation for teaching in one or more academic or special subjects. In order to qualify for a teaching certificate in the minor, special methods and practice teaching must be taken. For students desiring a teaching certificate, selection of a teaching major, or two teaching minors, is recommended. No minor is required in this curriculum, although students who plan to teach must meet the above listed requirements.

JUNIOR AND SENIOR YEARS

Education, 18 credits required:

COURSE No.	TITLE	CREDITS
Ed. 55A-B	Introduction to Secondary School Teaching	10
Ed.C.I. 104	Adult Education	2
Ed.C.I. 105	Visual Materials in Education	3
H.Ed. 180	The School and the Social Order	3

Recreation, 27 credits required, to be chosen from the following courses:

Soc. 50	Areas of Social Work	4
Phys.Ed. 52	Leadership of Social Activities	2
Phys.Ed. 54 or 46	Camp Leadership	2
Phys.Ed. 57	The Organization and Conduct of Recreation Centers	3
Phys.Ed. 58	Leadership in Community Recreation	3
Phys.Ed. 78	Scout Leadership	2
Phys.Ed. 110	Recreation Surveys	2
Phys.Ed. 111	Recreation Areas and Facilities	3
Phys.Ed. 112	Programming in Recreation	3
Phys.Ed. 116	Community Recreation Resources and Organization	3
Phys.Ed. 121	Principles of Recreation Method	3

Skill Techniques, 21 credits required, to be chosen from the following courses:

Music, 4 credits		
Mu.Ed. 50A	Teaching Music in the Primary Grades	2
Mu.Ed. 59	Choral Literature and Conducting	2
Art, 3 credits		
Art 43 or	General Crafts	3
Art 83 or	Sculpture	3
Art 93	Ceramics	3
Dramatics, 6 credits		
Sp. 32-33	Beginning Acting	6
Nature, 4 credits		
Phys.Ed. 64A-B	Leadership in Nature Recreation	4

Games, Rhythms, and Sports (men), 4 credits

COURSE No.	TITLE	CREDITS
Phys.Ed. 5A-B-C	Physical Education Activities	3
Phys.Ed. 7A-B-C	Recreational Games and Sports	3

Games, Rhythms, and Sports (women), 4 credits

Phys.Ed. 47	Teaching of Dance and Rhythmic Activities	3
Phys.Ed. 48	Teaching of Individual and Dual Sports	2
Phys.Ed. 49	Teaching of Team Sports	3
Phys.Ed. 57A-B	Teaching of Aquatics	4
Phys.Ed. 64	Teaching of Group Gymnastics	1

Practice and Field Work, 12 credits required, to be chosen from the following courses:

Ed.T. 84A-B-C	Practice and Field Work in Recreation	6
Ed.T. 85A-B-C	Practice and Field Work in Recreation	6
	Special Methods and Directed Teaching in minor (if teaching certificate is desired)	11

Public Health, 6 credits required:

P.H. 51†	Community Hygiene	3
P.H. 59	Health of the School Child	3

General electives to be selected from Senior College courses in consultation with major adviser.

The C+ average is based on the following courses: Phys.Ed. 54 or 46, 57, 58, 78, 110, 111, 112, 116, 121; and 16 credits in skill techniques spread over at least three different fields using no more than 6 credits in any one skill.

Minor in Recreation Leadership

COURSE No.	TITLE	CREDITS
Phys.Ed. 25	First Aid	1
Ed.T. 85A-B-C	Practice and Field Work in Recreation	3
	Recreation Leadership (Courses to be chosen in consultation with major adviser)	12
	Skill Techniques (To be chosen in consultation with major adviser)	12
	Elective—one course to be selected from the following:	
Psy. 140	Social Psychology	3
Ed.C.I. 104	Adult Education	2
Ed.C.I. 169	Extracurricular Activities	4
Ed.Psy. 158	Psychology of Adolescence	3

Note—For secondary school teachers the minor in recreation cannot take the place of the regular teaching minor but may be taken as a second minor.

Fifth Year Leading to the Master of Education Degree

The College of Education will award the master of education degree to students who satisfactorily complete a fifth year of work in recreation leadership and administration at the graduate level and who meet all regulations for the professional degree. Specific requirements are:

1. A total of 231 credits, including 45 credits in courses numbered above 100 beyond the requirements for the Bachelor's degree in recreation leadership and administration.
2. In addition to the practice and field work required for graduation in the undergraduate curriculum, a period of satisfactory internship will be required for which a maximum of 8 credits will be given, if the student does not have qualifying experience in the recreation field.
3. Students with Bachelor's degrees with majors in physical education, recreation, social work, or other allied fields from other accredited institutions, may receive the master of education degree with a major

† Requirement may not be met by exemption examination.

in recreation when the following requirements *other than herein listed* have been fulfilled at the undergraduate level:

- a. Ed. 55A-B, Introduction to Secondary School Teaching, or equivalent.
 - b. Twenty-six quarter hours of skill techniques spread over the fields of music, art, dramatics, nature, games, sports and rhythms. Demonstrated proficiency may be substituted for the requirement on advice and consent of the major adviser.
 - c. Qualifying interest and experience in the field of recreation.
4. Satisfactory completion of final written and oral examinations.
 5. A satisfactory report on health examination within one year prior to obtaining the M.Ed. degree.
 6. Distribution of credits for the fifth year as follows:

Education, 6-9

Recreation, 24-28

Electives, 8-15

Courses are selected in consultation with major adviser. For graduate courses in recreation see Description of Courses on pages 130 to 132.

Plan II. Recreation Activity Leaders Training Course

Plan II, recreation activity leaders training course, is directed specifically toward qualifying for recreation activities in recreation agencies. Enrolment in this program is limited. The curriculum does not include professional education courses and does not qualify for a teaching certificate. The general requirements for graduation do not apply to this curriculum.

The recreation activity leaders training course is a four-year program set up by the College of Education to prepare qualified individuals for recreation activity positions in recreation and other agencies as distinct from preparation for teaching and from Plan I, which is directed toward positions of recreation leadership and administration. Satisfactory completion of the program leads to the B.S. degree but does *not* qualify for a teaching certificate. Enrolment in the curriculum is limited and the first two years are taken in the General College.

The program is set up for students who have special abilities in various fields of recreational activities, such as games and sports, music, hand-crafts, drama, etc., which will be valuable to them as activity leaders. In addition, selection for the program is based on such attributes as personality, leadership ability, past experience in recreation, and possibility of success in recreation activity leadership. However, to be eligible for continuance in the curriculum, the student must maintain a C average in all work completed at the University of Minnesota.

FRESHMAN AND SOPHOMORE YEARS

Courses taken while enrolled in the General College:

Group A: Natural Science, 18 credits required:

COURSE No.	TITLE	CREDITS
G.C. 7A-B-C-D, or Nat.Sci. 1-2-3	Physical Sciences Orientation in Natural Sciences }	3-15
G.C. 10A-B	Human Biology	6
G.C. 10C, or P.H. 3	Human Biology } Personal Health }	2-3

Group B: Composition, Literature, Speech, 18 credits required (9 must be in some form of writing):

COURSE No.	TITLE	CREDITS
G.C. 31A, B, C, D or	Writing Laboratory	9
Com. 1-2-3 or	Communication	12
Comp. 4-5-6	Freshman Composition	9
G.C. 32A-B-C-D or	Oral Communication Speech Laboratory	6
Sp. 1-2 or	Fundamentals of Speech	6
Sp. 5	Fundamentals of Speech	5
G.C. 30A-B-C-D-E	Literature Today	3

Group C: Social Sciences, 24 credits to be selected from the following courses:

G.C. 4	Problems of Contemporary Society	5
G.C. 37	Social Trends and Problems	5
G.C. 38	General Geography	5
G.C. 39	General Anthropology	5
G.C. 43A	Background of the Modern World	5
G.C. 43B	Historical Biography	3
G.C. 44B	Current History	2 to 4
G.C. 45A	The U.S. in World Civilization	5
G.C. 45B	American Economic and Social Development	3
G.C. 45C	Minnesota and the Upper Midwest	5
G.C. 45D	Community Problems	3
G.C. 46A-B-C	Government Studies	3 to 9
Pol.Sci. 1-2	American Government and Politics	6
Soc.Sci. 1-2-3	Introduction to Social Science	4 to 12
Hist. 1-2-3	Civilization of the Modern World	3 to 9
Hist. 20-21-22	American History	3 to 9

Group D: Psychology, 5 credits required:

G.C. 41 or	Practical Applications of Psychology	5
Psy. A	Elementary Psychology	5

Group E: Recreation Theory, 9 credits required:

Phys.Ed. 11A,B,C	Survey of Recreation Activities	3
Phys.Ed. 23A,B,C	Introduction to Recreation Leadership	3
Phys.Ed. 49	Social Aspects of Leisure	3

Group F: Recreation Skills, 19 credits required:

G.C. 22A,B,C	Art Today	3 to 9
G.C. 23A	Art Laboratory	3
G.C. 24A,B,C, or	Music Today }	2 to 9
G.C. 25A,B,C	Music Today }	
G.C. 25X	Music Laboratory	2 to 3
Phys.Ed. 4A,B,C or	Fundamentals of Sports (Men) }	1 to 3
Phys.Ed. 1,2,3	College Program in Physical Education (Women) }	
Phys.Ed. 25	First Aid	1
Phys.Ed. 6C, or	Aquatics (Men) }	1
Phys.Ed. 11	Aquatics (Women) }	

JUNIOR AND SENIOR YEARS

Courses taken while enrolled in the College of Education:

Group A: Recreation Theory, 35 credits required:

Phys.Ed. 57-58	Introduction to Community Recreation	6
Phys.Ed. 52	Leadership of Social Activities	2
Phys.Ed. 78	Scout Leadership	2
Phys.Ed. 54, or 46	Camp Leadership	2
Phys.Ed. 110	Recreation Surveys	2
Phys.Ed. 111	Recreation Areas and Facilities	3
Phys.Ed. 112	Programming in Recreation	3
Ed.T. 84A-B-C	Field Practice in Recreation, Junior Year	6
Ed.T. 85A-B-C	Field Practice in Recreation, Senior Year	6
Phys.Ed. 121	Principles of Recreation Methods	3

Group B: Recreational Skills, 22 credits required:

COURSE No.	TITLE	CREDITS
Ind. 1	Basic Woodwork	3
Ind. 20 or 21	Craft Work	3
Phys.Ed. 64A-B	Leadership in Nature Recreation	4
	Recreational Dramatics	6
	Recreational Music	6

Physical Education (men), 10 credits required from the following:

Phys.Ed. 5C	Stunts, Contests, Softball, Baseball	1
Phys.Ed. 7A	Games and Relays	1
Phys.Ed. 7C	Recreational Games	1
Phys.Ed. 8	Tennis and Golf	1
Phys.Ed. 9A-B	Rhythms	2
Phys.Ed. 66	Officiating Football and Basketball	3
Phys.Ed. 68	Basketball Coaching	2
Phys.Ed. 69	Track Coaching	2

Physical Education (women), 10 credits required from the following:

Phys.Ed. 21A-B-C	Elementary Physical Education	2 to 6
Phys.Ed. 41A-B-C	Intermediate Physical Education	3 to 9
Phys.Ed. 57A-B	Technique of Teaching Aquatics	2
Phys.Ed. 61A-B	Technique of Teaching Team Sports	2
Phys.Ed. 65A-B	Technique of Teaching Individual and Dual Sports	2

Group C: General courses, 5 or 6 credits required:

Agr.Ed. 56	Rural Youth Leadership	3
P.H. 4 or	Health Problems of the Community	2
P.H. 51	Community Hygiene	3

Group C: General electives, 20 or 21 credits selected from Senior College courses in consultation with a major adviser, to complete total of 186 credits.

Minor in Camping and Outdoor Education

The Recreation Division also offers a minor in camping and outdoor education based on the following requirements. Thirty-five credits are required. This minor is open to majors in elementary education and may be taken as an additional minor by students in secondary education. It does not constitute a teaching minor and cannot be substituted for any minor requirement listed in any curriculum.

Phys.Ed. 46	Camp Leadership	2
Phys.Ed. 45	Camp Craft	3
Phys.Ed. 107	Camp Administration	3
Phys.Ed. 105	Conservation of Natural Resources	2
Phys.Ed. 43	Camp Aquatics	2
Ed.Psy. 158	Psychology of Adolescence	3
Phys.Ed. 64A,B	Leadership in Nature Recreation	4
Phys.Ed. 52	Leadership in Social Activities	2
Phys.Ed. 121	Principles of Recreation Methods	3
	Recreational Music	3
	Recreational Dramatics	3
	Handcrafts	3
	Recreational Games and Sports	3
Phys.Ed. 43 or 11	Aquatics	1
Phys.Ed. 25	First Aid	1
	Field Work in Camping (one summer's experience)	

ROMANCE LANGUAGES

Major advisers, French: Associate Professor H. E. Clefton;
Spanish: Associate Professor W. T. Pattison

Students wishing to major in French or Spanish take the first two years in the College of Science, Literature, and the Arts and meet the Junior College requirements of that college. They should include in their programs the prerequisite courses and some of the Senior College courses listed above. For general and professional requirements of the College of Education, see pages 7 to 12.

French as a major subject, 35 credits in courses numbered above 4 including:

COURSE No.	TITLE	CREDITS
French 70-71-72	Survey of French Literature (or 73-74)	9
	and	
	One other literary course	3 to 9
French 50	French Pronunciation	3
French 53 and	French Composition	6
French 54, or	French Conversation }	
French 20	Oral and Written French	5
French 55	French Conversation	3
French 63	Advanced French Composition	3
French 103-104-105	French Syntax and Composition	3

French as a minor subject, 17 credits in courses numbered above 4, including 70-71-72 or 73-74.

Spanish as a major subject, 35 credits in courses numbered above 4 including:

Span. 65-66-67, or	Survey of the Literature of Spain	9
Span. 68-69, or	Survey of the Literature of Spain	10
Span. 74-75-76	Survey of the Literature of Latin America	9
Span. 53 and	Spanish Composition }	6
Span. 54, or	Spanish Conversation }	
Span. 20	Oral and Written Spanish	5
Span. 55	Spanish Conversation	3
Span. 63	Advanced Spanish Composition	3

At least eight credits chosen from the following:

Span. 56	Spanish Phonetics and Diction	5
Span. 70-71-72	Latin-American Civilization and Culture	3 to 9
Span. 103-104-105	Spanish Syntax and Composition	3
Span. 171-172-173	History of the Spanish Language	3

Spanish as a minor subject, 17 credits in courses numbered above 4, including Span. 65-66-67 or 68-69 or 74-75-76.

RURAL EDUCATION

Major adviser, Associate Professor Clifford P. Archer

The College of Education offers a four-year and a five-year program for students who wish to specialize in rural education and administration and supervision of rural schools. The first two years of the curriculum are the same as for elementary education, page 34. However, modifications may be made in individual cases in conference with the major adviser, and many of the courses under 1 should be taken in the freshman and sophomore years. Students register in the College of Education beginning with the freshman year and should consult the major adviser at the time of their first registration.

Requirements for a Major in Rural Education

1. Specialization in Rural Life, 40 to 45 credits required:

COURSE No.	TITLE	CREDITS
Agr.Econ. 3	Principles of Economics	5
Agr.Econ. 8	Rural Economics	3
Soc. 14	Rural Sociology	3
Agr.Ed. 54 or Agr.Ed. 56	Rural Education and Community Leadership }	2 or 3
Agron. 1	Rural Youth Leadership }	
An.Husb. 1	General Farm Crops	3
Hort. 6 or Hort. 32 or Hort. 56	Livestock Production	4
Dy.Husb. 1	Fruit Growing }	3
	Vegetable Growing }	
	Plant Propagation }	3
	Elements of Dairying	

A minimum of 14 credits chosen from the following:

H.E. 1 or G.C. 15A	Choice and Care of Clothing }	3 or 4
H.E. 30 or 31 or G.C. 14A	Clothing Selection, Purchase, and Care }	
H.E. 20 or H.E. 24 or G.C. 16A	Introduction to Nutrition }	2 or 3
H.E. 50, or H.E. 2	Food Selection and Purchase }	
G.C. 17	Introduction to Related Art }	3 or 5
	Problems in Home Planning and Furnishing }	
	Selecting and Maintaining a Home }	3
	Textiles }	
	Introduction to Textiles }	3
	Income Management and Buying }	

Certain substitutions for the above courses may be made by men students in consultation with the adviser.

2. General and Elementary Education:

Ed. 71A-B-C	Introduction to Elementary School Teaching	15
Art Ed. 84	The Teaching of Art in the Elementary School	3
Mu.Ed. 50B	Teaching Music in the Intermediate Grades	2
Ed.C.I. 54A-B	Student Teaching in the Elementary School	10
Ed.C.I. 60B	The Teaching of Reading in the Elementary School	3
Ed.C.I. 61	The Teaching of the Social Studies in the Elementary School	3
Ed.C.I. 62B	The Teaching of Arithmetic in Intermediate Grades	3
Ed.C.I. 63	Children's Literature	2
Ed.C.I. 64	The Teaching of English in the Elementary School	3
Ed.C.I. 65	The Teaching of Science in the Elementary School	2
H.Ed. 180	The School and the Social Order	3

3. Additional courses to complete the total of 186 credits, including P.H. 59, Health of the School Child, prereq. 3 and 4, or 50.

Recommended courses are: Soc. 160, Rural Community Organization, 3 credits; Soc. 162, Rural Social Institutions, 3 credits; For. 10, Farm Forestry, 3 credits; additional courses in home economics; additional courses in curriculum and instruction and in educational psychology; Ed.C.I. 117, Rural Education for Administrators and Teachers.

Fifth Year in Rural Education

A fifth-year program in rural education leading to the master of education degree is provided for those who wish additional preparation for administrative or supervisory positions. All the general requirements for the M.Ed. degree apply to this program. The specific requirements are as follows:

1. **Sociology**—6 credits (unless these courses were taken in the four-year curriculum):

Soc. 160	Rural Community Organization	3
Soc. 162	Rural Social Institutions	3

2. Education—24 credits:

COURSE No.	TITLE	CREDITS
Ed.C.I. 117	Rural Education for Administrators and Teachers	3
Ed.C.I. 150	Supervision and Improvement of Instruction	3
Ed.C.I. 151	Diagnosis and Remedial Instruction	3
Ed.Psy. 120	Basic Principles of Measurement	3
Ed.Psy. 293	Psychology of Learning	3

Nine credits to be selected from courses in school administration, organization, and supervision and problems in rural education.

3. Internship in supervision of rural schools—maximum 8 credits.

4. Graduate courses in agriculture, horticulture, forestry, home economics, or other approved fields—8 credits.

Note—Where prescribed courses in the fifth year have been taken in the undergraduate curriculum, equivalent credits should, as a rule, be selected in the fields listed under 4.

SCHOOL HEALTH EDUCATION

Minor adviser, Assistant Professor Dorothy L. Ericson

The minor in school health education is open to elementary education majors and as an additional minor for secondary education majors. It cannot be substituted for any minor requirement in the secondary fields.

*Minor in School Health Education***Group A, basic courses:**

G.C. 10A-B	Human Biology	6
G.C. 10C† or	Human Biology	3-4
P.H. 3 and	Personal Health	
P.H. 4 or	Health Problems of the Community	
P.H. 50 or	Public Health and Personal Health	
P.H. 51	Community Hygiene	
P.H. 59	Health of the School Child	3
P.H. 133	Mental Hygiene	3
Phys.Ed. 25	First Aid	1

Group B, School Health Education Theory:

Ed.T. 83 or	Methods and Materials of School Health Education }	3
P.E. 117	Advanced Course in School Health Instruction	
Ed.C.I. 114	The School Health Education Program	3
Ed.C.I. 129	Principles and Problems of Teaching Social Hygiene	2

Group C, Directed Teaching:

Phys.Ed. 94	Student Teaching in School Health Education	2
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SOCIAL STUDIES

Major adviser, Professor Edgar B. Wesley

The secondary teacher of the social studies is seldom given an opportunity to devote his entire schedule to one special subject. Prospective teachers are therefore urged to take some work in each of the social studies. The following programs are designed to furnish a diversified preparation. The social studies program outlined below covers both the major and the minor, but students are urged to consult an adviser about the choice of the core subject and about securing a minor in some other teaching field. According to the regulations of the State Department of Education, a major or a minor (23 credits) is required for teaching history

† For selection of courses consult adviser; see also the statement of prerequisites.

in high school. Those who take a social studies major are strongly urged to gain experience in some extracurricular activity. A minor in science, in a foreign language, or in mathematics constitutes a valuable addition to one's preparation in the social studies.

For the freshman and sophomore years, the student is registered in the College of Science, Literature, and the Arts and meets the Junior College requirements as stated on page 8. For general and professional requirements of the College of Education, see pages 7 to 12.

Requirements for a Major in the Social Studies

The course requirements for a *major* in the social studies are prescribed under 1 and 2 below:

1. The student must select one of the five fields listed and must complete the course requirement indicated. This is referred to as the *core subject*.
 - a. Economics, 30 credits including Courses 6-7 and 20 additional credits, of which 12 must be in courses numbered above 100.
 - b. Geography, 30 credits.
 - c. History, 36 credits, 18 of which must be from the Senior College.
 - d. Political science, 30 credits.
 - e. Sociology, 30 credits.
2. In addition to the requirements set forth under 1 the student must complete courses in other subjects as follows:
 - a. With economics, geography, political science, or sociology as the core subject: In addition to the requirements for the core subject the student must secure 23 credits in history and 18 credits in at least two other subjects listed under 1. Note the following limitations: Not fewer than 5 credits may be chosen from any one field, and the field selected under 1 as core subject may not be used to meet the 2 requirement.
 - b. With history as the core subject: In addition to the requirements in history set forth above, the student must secure 30 credits in at least three other subjects listed under 1. No fewer than 5 credits may be chosen from any one field and courses in history may not be used to meet the requirement.

The C+ average is based on all courses taken in the five fields listed above. For professional and public health requirements, see pages 10-11.

Requirements for a Minor in the Social Studies

Those who major in some subject or field other than the ones listed under 1 may secure a minor in the social studies. The course requirements for a minor in the social studies are 46 credits, 23 in history and 23 divided between at least two other subjects selected from the five listed under 1 above. No fewer than 5 credits in any one subject will be counted toward the requirement of 23 credits in other subjects.

Five-Year Program Leading to the Master of Education Degree

The College of Education offers a five-year program leading to the professional degree of master of education for teachers of the social studies. For general requirements for the M.Ed. degree, see page 12. For specific requirements for this curriculum confer or correspond with the major adviser.

Teachers of the social studies who are interested in further study may secure an M.A. degree in the Graduate School. Such students will

usually major in curriculum and instruction or in education. See statement on page 32.

SOCIOLOGY

Major adviser, Associate Professor Douglas G. Marshall

Because of the many demands made upon teachers of the social studies, because of the necessity of teaching more than one subject or general courses, and because of the difficulty of placement, students are strongly urged to follow the social studies curriculum, see pages 80-82.

Students with a major in sociology take the first two years in the College of Science, Literature, and the Arts and meet the Junior College requirements of that college. They should include in their programs at least 15 credits in sociology courses. For general and professional requirements of the College of Education, see pages 7 to 12.

Sociology as a major subject:

Soc. 1	Introduction to Sociology	5
Soc. 14	Rural Sociology	3
Soc. 49	Social Problems	3
	Additional credits	25

Students majoring in sociology must complete two teaching minors. Teachers of experience who already hold a teacher's certificate and do not desire further certification may be relieved of this requirement upon petition.

Sociology as a minor subject:

A minimum of 23 credits including Soc. 1, 14, and 49, is required.

SPEECH

Major advisers, Professor Howard Gilkinson; Associate Professor Frank M. Whiting, Lecturer Donald K. Smith

Students interested in speech are strongly urged to consider the language arts curriculum described on pages 51-52. For curriculum in speech pathology, see pages 83-84.

Students majoring in speech register for the first two years in the College of Science, Literature, and the Arts and meet the Junior College requirements. For general and professional requirements of the College of Education, see pages 7 to 12.

Speech as a major subject:

COURSE No.	TITLE	CREDITS
Speech 1-2	Fundamentals of Speech	6
or		
Speech 5	Fundamentals of Speech	5
Speech 31	Introduction to the Theater	3
Speech 32	Beginning Acting	3
Speech 61	Personal Development through Speech	3
Speech 67	Phonetics	3
Speech 71-72-73	Problems of Dramatic Production in Secondary Schools	9
Speech 81-82	Interpretative Reading	6
Speech 101-102	Argumentation and Persuasion	6
Speech 119	Introduction to Speech Correction	3

Speech as a minor subject—Students minoring in speech are required to take Speech 1-2 or 5 plus other speech courses totaling 27 credits. 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, public speaking and discussion, 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, radio, 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 the recommendation of the departmental adviser with the approval of the Students' Work Committee.

Students majoring in speech will register in Ed.T. 75A-B-C, Teaching of the Language Arts and in Ed.T. 75, Student Teaching in the Language Arts for the professional work of the senior year. Students minoring in speech will register for Ed.T. 75C for the methods course in the minor.

SPEECH PATHOLOGY

Major adviser, Professor Bryng Bryngelson

This program of study has been arranged for those students who are interested in persons with speech disorders. The training in this specialized field is designed to qualify students for professional work in speech correction in schools, hospitals, private clinics, and child guidance clinics.

The program is arranged for four or more years of study. At the end of four years a certificate in special education and a B.S. degree are granted. Further study for the M.S. and Ph.D. degrees is possible for those having an A or a B average in undergraduate work. The required courses are listed below. Students interested in this field should consult the major adviser before registering. All electives selected to complete the work for a degree should have the approval of the adviser.

Students register for the first two years in the College of Science, Literature, and the Arts and complete the Junior College courses listed below.

FRESHMAN AND SOPHOMORE YEARS

COURSE No.	TITLE	CREDITS
Com. 1-2-3	Communication (or Comp. 4-5-6 or Eng. A-B-C or exemption)	9-12
Zool. 1-2-3 or	General Zoology	10
Nat.Sci. 7-8-9	General Biology	10
Psy. 1-2	General Psychology	6
Sp. 1-2-3 or 5-6	Fundamentals of Speech	9 or 10
Psy. 4-5	Introductory Laboratory Psychology	4
Physiol. 2	Elements of Physiology	4
Hum.Anat. 3	Elementary Anatomy	4
	Physical Education	3 or 5
	Electives to complete total of 96 credits	

JUNIOR AND SENIOR YEARS

Sp. 61	Personal Development through Speech	3
Sp. 67	Phonetics	3
Sp. 119	Introduction to Speech Correction	3
Sp. 152	Hearing Disorders	3
Sp. 153	Audiometry and Hearing Aids	3
Sp. 155	Lip Reading and Lip Reading Methods	3
Sp. 162-163	Speech Pathology	3
Psy. 144-145 or 113	Abnormal Psychology	6 or 6
Ed.Psy. 60	Introduction to Statistics and Measurement	2 or 3
Ed.Psy. 142	Construction and Use of Individual Aptitude Tests	3
Ed. 71A-B-C, or	Introduction to Elementary School Teaching	10-15
Ed. 55A-B	Introduction to Secondary School Teaching	
Ed.C.I. 145	Remedial Reading (optional)	3

COURSE No.	TITLE	CREDITS
Ed.C.I. 174-175-176	Clinical Methods and Practice in Speech Pathology	9
H.Ed. 180	The School and the Social Order	3
C.W. 80	Child Psychology	3
C.W. 132	Later Childhood and Adolescence	3
	Electives to complete total of 186 credits.	

The C+ average is based on the following courses: Sp. 61, 67, 119, 152-153, 155, 162-163; Ed.C.I. 174-175-176; C.W. 80.

STUDENT PERSONNEL WORK

Major advisers, Professors Marcia Edwards and C. Gilbert Wrenn;
Associate Professor Willis E. Dugan

Work leading to the M.A. or Ph.D. degree can be taken with a concentration in this field. Preparation is possible for technical or administrative positions at either the secondary school or college level. A major in educational psychology is most frequently advised with a minor in either psychology, education, or sociology. A major in education is also possible with a minor in psychology. The Plan A-type M.A. program is the almost universal recommendation for students desiring only the first graduate degree.

In this field heavy stress is laid upon training that leads to an adequate understanding of the individual student. Emphasis is also placed upon clinical practice or internship experience in active school, university, or social agency guidance programs, provided for under Ed.Psy. 281 and 282, Practice in Personnel Work. Basic courses are Ed.C.I. 125 and 135; Ed.Psy. 120, 133, 141, 158, 159, 225, 226, 233, 250 and 251. In addition, students are advised to become familiar with curriculum and administrative problems at either the public school or higher education level, to take certain courses in psychology and sociology, and, if doctorate candidates, to take advanced courses in statistics and measurement, and to probe research problems in the student personnel field.

TEACHING OF EXCEPTIONAL CHILDREN

Major adviser, Assistant Professor Harold A. Delp

The State Department of Education requires special certificates of teachers of the various classes for exceptional children, such as classes for the deaf and hard of hearing, the crippled, the mentally retarded, the visually handicapped, and those with speech defects. The curriculum set up for speech pathology (page 83) trains special teachers in speech correction. Students interested in other areas of work with exceptional children will complete a basic teacher-training program in one of the following areas: kindergarten-primary, elementary, or secondary education. Teachers of special classes must have specialized training *in addition* to the same training required of teachers working in normal classes. Because this is true, special requirements will take the place of the majority of electives and in some cases may require at least an additional quarter of work. Though the need for special teachers in Minnesota is quite great, a careful screening process will be used to select candidates for special certificates.

The course work listed below consists of those courses required for all special-class work. In addition to the courses listed, the student's schedule will include courses in other areas pertaining especially to the area in which the special certificate is desired. These courses will be

drawn from medicine, child welfare, physical education, education, and related fields. Each student should plan his curriculum individually with the adviser.

Because some of the courses in the specialized areas are not offered each year, it is advisable to consult the adviser as early as possible.

Courses Required for All Special-Class Teachers

COURSE No.	TITLE	CREDITS
Ed.Psy. 159	Personality Adjustment and Mental Hygiene	3
Ed.Psy. 182	Education of Exceptional Children	3
Ed.Psy. 184-187	One course in education of the special area desired	2
C.W. 80	Child Psychology	3
C.W. 132	Later Childhood and Adolescence	3
C.W. 170	Parent Education	3
Sp. 119	Introduction to Speech Correction	3
Ed.C.I. 145	Remedial Reading	3
Ed.C.I. 151	Diagnosis and Remedial Instruction	3
Ed.T. 53A-B	Teaching of Exceptional Children	10

Additional work is planned individually in terms of the particular area of interest in special class teaching.

VISITING TEACHERS

Major adviser, Professor Edgar B. Wesley

The work of the visiting teacher is social work in the schools for the welfare and development of the individual child through adjustment of school-home problems. This work utilizes accurate and extensive psychological knowledge of the pupil, knowledge of and experience in the school, knowledge of and training in social work. It is assumed that to the four-year program outlined below there should be added experience in teaching and graduate work in the field of social work. This four-year undergraduate program will permit a student to teach in the field of social science in *secondary schools* as well as to perform visiting teacher duties if such are in demand, but a fully trained visiting teacher must have further professional training. The curriculum below provides undergraduate preparation for graduate work in the field of social work as well as the basic training for teaching in the social science field. Elementary school teachers and those desiring to work in that field should consult an adviser in elementary education. See page 33.

The first two years are taken in the College of Science, Literature, and the Arts.

FRESHMAN AND SOPHOMORE YEARS

COURSE No.	TITLE	CREDITS
Com. 1-2-3	Communication (or Comp. 4-5-6 or Eng. A-B-C or exemption)	12
Hist. 1-2-3	Civilization of the Modern World	9
Nat.Sci. 7-8-9 or G.C. 10A-B-C	General Biology } Human Biology }	9-10
Soc. 1	Introduction to Sociology	5
Soc. 2	Intermediate Sociology	5
Soc. 49	Social Problems	3
Econ. 6-7	Principles of Economics	10
Hist. 20-21-22	American History	9
Pol.Sci. 1-2-3	American Government and Politics	9
Psy. 1-2	General Psychology	6
P.H. 3	Personal Health	2
P.H. 4	Health Problems of the Community	2
	Physical Education	3 or 5
	Electives to complete total of 96 credits	

COLLEGE OF EDUCATION

JUNIOR AND SENIOR YEARS

COURSE No.	TITLE	CREDITS
Ed. 55A-B	Introduction to Secondary School Teaching	10
Ed.Psy. 60	Introduction to Measurement and Statistics	2 or 3
Ed.Psy. 120	Basic Principles of Measurement	3
Ed.Psy. 158 or	Psychology of Adolescence	3
C.W. 132	Later Childhood and Adolescence }	
Ed.Psy. 159	Personality Adjustment and Mental Hygiene	3
Ed.Psy. 182	Education of Exceptional Children	2
Ed.Psy. 184	Education of the Slow Learning Child	2
Ed.T. 69 and 69A-B-C	The Teaching of the Social Studies and Student Teaching ..	11
H.Ed. 180	The School and the Social Order	3
C.W. 140	Behavior Problems in Younger Children	2
C.W. 141	Behavior Problems in Older Children	2
Soc. 50	Areas of Social Work	3
Soc. 53	Elements of Criminology	3
Soc. 91	Case Method Applied to the Study of Human Problems	3
Soc. 103	Juvenile Courts and Probation	3
Econ. 73	Manpower Economics and Problems	3
P.H. 59	Health of the School Child	3
	Electives to total 186 credits	

Section III. Description of Courses

This section contains descriptions of the courses offered in the College of Education and in certain schools and divisions in which some students take a major portion of their work. Courses in agriculture and home economics are described in the *Bulletin of the College of Agriculture, Forestry, Home Economics, and Veterinary Medicine*. Other courses representing general requirements, majors and minors in high school subjects, and general electives are described in the *Bulletin of the College of Science, Literature, and the Arts*.

The descriptions include the number of the course, the quarter or quarters when the course is usually offered (fall, winter, spring), the number of credits, the prerequisite courses, and the name of the instructor. The days and hours when classes meet and the place of meeting are contained in the *Class Schedule* published just before the registration period each quarter. Since there are many changes from year to year and from quarter to quarter students will need to check carefully with the *Class Schedule* for the exact course offerings for each quarter.

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 above 200 are for graduate students only. Courses designated with a capital "E" are at a graduate level and carry credit toward the master of education degree, but do not carry credit in the Graduate School.

An asterisk (*) after a graduate course number indicates that the course may be taken for independent work under Plan B for the Master's degree.

A dagger (†) indicates that all quarters of the course must be completed before credit is given for any quarter.

COURSE FEES

The following courses require payment of course fees as indicated.

Agricultural Education 82, 91, 199E	\$ 1.50 per credit
Art Education 84, 86, 86A, 87, 87A, 88, 88A, 185	1.50 per credit
17, 18, 19	1.50 per quarter
81A, 81B	2.00 per quarter
56, 57, 58	3.00 per quarter
Curriculum and Instruction (Ed.C.I.): All courses	1.50 per credit
Education 51A, 51B, 51C, 55A, 55B, 71A, 71B, 71C	1.50 per credit
Educational Psychology 142, 143, 144, 150	1.50 per credit
217, 218	1.00 per quarter
216A, 217A, 218A	1.50 per quarter
Home Economics Education 91, 93, 94, 197, 199E	1.50 per credit
Industrial Education 1, 2, 3, 5, 6, 7, 10, 11, 12, 15, 16, 20, 21, 25, 26, 50A, 50B, 50C, 70	1.50 per credit

Library Tuition. Students taking 12 credits or more of library courses will pay full tuition rate for Library—\$42 (resident), \$75 (nonresident) and may take other courses with no college tuition charge. Students taking less than 12 credits of library courses will pay the library rate for library courses and the college rate for other courses except that no student will be charged more than \$42 (resident), \$75 (nonresident), regardless of courses pursued.

Methods and Student Teaching (Ed.T.): All courses	1.50 per credit
Music Education 4, 5, 6, 50A, 50B, 53, 59, 60, 61, 62, 63, 64, 65	1.50 per credit
225E, one lesson per week, 2 credits	30.00 per quarter
225E, two lessons per week, 4 credits	60.00 per quarter
Physical Education (men) 1A, 1B, 1C, 2A, 2B, 2C	1.00 per credit
4A, 4B, 4C, 5A, 5B, 5C, 6A, 6B, 6C, 7A, 7B, 7C, 8, 9A, 9B, 55, 60B, 73, 74, 75	1.50 per credit
Towel and locker fee required of all students using physical education facilities for activity, payable at the department	2.50 per quarter
Uniforms for class work or recreational activity, payable at the department	2.00 per quarter
Physical Education (women): All nonprofessional courses, 20A-B-C, 21A-B-C-D-E, 22A-B-C, 40A-B-C, 41A-B, 42A, 54, 56, 87, 88 (\$5 maximum regardless of number of courses)	2.50 per quarter
47, 48, 57A, 57B, 62, 64, 83, 90A, 90B, 90C, 94	1.50 per credit
51	2.00 per quarter
Public Health 65, 66, 67	1.00 per credit
80	1.00 per quarter
121, 131	1.50 per quarter
111	2.00 per quarter

EDUCATION

General Courses

Ed.50. Orientation to Secondary Education. Visitation and observation program, two or three weeks in September preceding fall quarter of junior year, conferences in the school visited, and group discussions Saturday mornings and in first week of fall quarter. Open to 20-30 selected pre-education sophomores; evaluation plans to be set up in advance. *Students must register in College of Education office during first four weeks of spring quarter.* 1 cred.; prereq. Psy 1-2. Grim.

Ed.51A-B-C. Introduction to Secondary School Teaching. Not offered. See Ed. 55A-B.

Ed.55Af,w. Introduction to Secondary School Teaching. A basic course in secondary education. Discussion of the secondary school, its present status, historical development, basic purposes as a social institution, curriculum, relation to other educational institutions, and probable future developments. Both Ed. 55A and 55B must have been completed before the beginning of student teaching in the senior year. Three hours of class work weekly, plus four hours of "laboratory," including observation, discussion, school and community projects. 5 cred.; prereq. Psy. 1-2. Mork.

- Ed.55Bw,s. Introduction to Secondary School Teaching. A basic course in educational psychology. The development of the adolescent in relation to the development of the child and the adult; individual differences, including measurement and statistics; psychology of learning; and the psychology of personality and mental hygiene. Both Ed. 55A and 55B must have been completed before the beginning of student teaching in the senior year. Three hours of class work weekly, plus four hours of group discussion, case studies, observation, school and community projects. 5 cred.; prereq. Ed. 55A; for nurs. ed. majors, Psy. 1-2. Mork.
- Ed.71Af-Bw-Cs. Introduction to Elementary School Teaching. Students should enter the course in the fall, but on recommendation of adviser in special cases students who have not had 71A may be admitted to 71B.
- 71Af. Individual Differences and Measurement. A basic course in individual and trait differences in relationship to educational practices; including basic principles of measurement and descriptive statistics. 5 cred.; prereq. Psy. 1-2. Cook.
- 71Bw. Educational Psychology. A basic course in child growth and development during the elementary school years; including principles of learning, adjustment, and special problems of educational disabilities. 5 cred.; prereq. 71A. Bond.
- 71Cs. The Elementary School Program. A basic course in modern school practices; including methods of instruction, curriculum development, school organization, and the relationship to other educational agencies. 5 cred.; prereq. 71A-B. Brueckner.
- Ed.81f,w,s. Introduction to Education for Public Health Nurses. Principles, methods, and materials in education as applied to public health nursing situations. Group work will be emphasized. Not open to candidates for a degree in the College of Education. 3 cred. Grout.

AGRICULTURAL EDUCATION

- Agr.Ed.1f. Introduction to Agricultural Education. An orientation course for students who are interested in exploring the opportunities for employment and services as teachers of agriculture. Qualifications of teachers and a survey of preparatory offerings. 1 cred. Teske.
- Agr.Ed.54w. Rural Education and Community Leadership. The rural school as a community center, and ways and means of organizing education and recreational activities, such as clubs, festivals, fairs, and other desirable features of rural community life. 2 cred. Peterson.
- Agr.Ed.56s. Rural Youth Leadership. A lecture, demonstration, and laboratory course in cooperation with leaders and specialists in the various fields. Problems of rural youth leadership with emphasis on 4-H clubs, Future Farmers of America, and extension activities. 3 cred. Teske, Donahoo.
- Agr.Ed.81w,s. Teaching Agriculture. Organization and administration of the program for teaching agriculture in the secondary school. Relationships to other rural programs; planning farm practice activities, guidance for rural youth, and the use of the home, farm, and community in teaching agriculture. 3 cred.; prereq. Ed. 55B. Kitts.
- Agr.Ed.82s. Methods in Teaching Agriculture. Fundamentals of methods in teaching as related to teaching agriculture in high school. Organizing subject-matter of daily work; selection and manipulation of devices. Classroom and laboratory method. Specific plans for teaching secondary school agriculture. 3 cred.; prereq. 81. Kitts.

- Agr.Ed.91f,w,s. Supervised Student Teaching. Preparation of lesson plans and actual teaching of classes under careful supervision in recitation and laboratory; criticism and discussion of plans, methods, and results of student teaching. 6 cred.; prereq. 82 and a C+ average in major. Kitts.
- Agr.Ed.101f,w. Young Farmer Education in Agriculture. Developing and organizing a continuing program of educational activities for farm youth not in school and not established in an occupation. Coordinating community resources, determining needs, establishing goals and individual plans of procedure for establishment in farming or related occupations. Observation of young farmer programs. 3 cred.; prereq. 81. Peterson, Donahoo.
- Agr.Ed.102f,w. Adult Education in Agriculture. Systematic instruction for established farmers. Analysis of the farming situation with special emphasis on adoption of approved practices. Determining needs in production, marketing, credit, conservation, etc. Developing a continuing program. Observation of adult education programs. 2 cred.; prereq. 81. Kitts, Teske.
- Agr.Ed.103f,w. Facilities and Materials. A study of the physical arrangement for departments of vocational agriculture. Building facilities, room fixtures, references, equipment, visual aids, illustrative materials. 3 cred.; prereq. 82. Peterson, Donahoo.
- Agr.Ed.104f,w,s. Planning Programs. Long-time and annual plans for departments of vocational agriculture. Schedule of activities, analysis of results. 2 cred.; prereq. 82. Peterson, Donahoo.
- Agr.Ed.141f. Supervised Farm Practice in Vocational Agriculture. A course dealing specifically with the selection, planning, supervising, and summarizing of the individual farming programs. 3 cred.; prereq. 10 cred. in ed. Peterson and staff.
- Agr.Ed.145w. The Integrated Course of Study in Agriculture. A study of the organization, administration, and teaching in agriculture departments in secondary schools. Special emphasis on planning programs for individual students. 3 cred.; prereq. 10 cred. in ed. Peterson and staff.
- Agr.Ed.154w. Rural Education and Community Leadership. 2 cred.; prereq. 10 cred. in ed. Peterson and staff.
- Agr.Ed.199E. Internship. Cred. ar.
- Agr.Ed.221f,w,s. Field Problems. Making investigations, gathering data, and formulating plans regarding agricultural education. 3 cred. Peterson and staff.
- Agr.Ed.232f,w,s. Research in Agricultural Education. Introduction to investigational work in problems of teaching agriculture in high schools. Experience in selecting problems, preparation of bibliographies, analyzing and interpreting data and preparing manuscripts. Cred. ar. Peterson and staff.
- Agr.Ed.250f. Supervision of Vocational Agriculture. 1-3 cred.; consult instructor. Peterson, Kitts.
- Agr.Ed.286w. Current Problems in Agricultural Education. Analysis and discussion of special problems of individual teachers. Opportunity for intensive study of specific problems related to local school programs. Cred. ar.; cons. of instr. Peterson and staff.
- Agr.Ed.291s. Seminar in Agricultural Education. Cred. ar. Peterson and staff.

ART EDUCATION

- Art Ed.14f,s. Introduction to Art Education. An introductory course for art education majors previewing career opportunities, basic problems of teachers, professional qualifications, and guidance in making the most efficient use of educational resources at the University towards developing professional competence. Included are contacts with schools, art museums, settlement houses, College of Education laboratory schools, and other experiences which illustrate career possibilities in art education. 2 cred. Ar.
- Art Ed.17f,18w,19s. Survey of Art in Life and Education. A streamlined background course for elementary teachers and child welfare majors of approximately half lecture and half laboratory experiences to prepare the average elementary teacher to appreciate and use art in the elementary school. 17: How the artist expresses life with parallels in childhood education; 18: design, the structural basis of art and relationships with nature of significance in education; 19: influence of art on modern life approached through typical opportunities for integrated experiences. 3 cred. per qtr. Ar.
- Art Ed.56f,57w,58s. Basic Principles and Experiences in Art Education. Professionalized sequence for art education majors. Discussion of basic types of art expression as a foundation for teaching methods adjusted to age and ability groups. Laboratory experiences in planning group activities in art as a background for directed teaching. 5 cred. per qtr.; prereq concurrent reg. in Ed. 55A,B. Page, Hastie.
- Art Ed.81w,s. Puppetry in Art Education Programs. The use of various forms of simple puppetry as a teaching technique with emphasis on problems of motivation and correlation with school subjects. Construction, manipulation, and stage techniques approached as they relate to typical school situations. 3 cred. Ar.
- Art Ed.84f,w,s. Teaching of Art in the Elementary School. (Required of elementary education majors.) The place and content of art in the curriculum of the elementary school. Appropriate methods for securing optimum educational outcomes from art activities. Demonstration lessons provide a realistic basis for discussion of important problems in the teaching of art. 3 cred.; prereq. Art Ed.17,18. Gayne.
- Art Ed.85w. Art in Life and Education. (For secondary school majors in other teaching fields—not open to art education majors or to those with credit in Art Ed. 17-18-19.) Emphasizes opportunities for correlation between art and other subjects in the secondary schools which are frequently overlooked by the general educator unaware of esthetic values in contemporary life and education. 3 cred. Ar.
- Art Ed.86f,87w,88s.† Student Teaching and Supervision of Art. For seniors who are majors in art education. Observation, participation, practice teaching, and supervisory experiences to provide acquaintance with various types and levels of classes which art teachers teach and coordinate in educational systems. One quarter is spent at the secondary level, one at the elementary level (primarily as a preparation for supervision), and one quarter in a cooperating quasi-public educational project which emphasizes educational opportunities and responsibilities for encouraging art education in the community. Concurrent registration for each quarter for Art Ed. 86A-87A-88A is

required. Successful completion of the work for each quarter in both Art Ed. 86-87-88 and 86A-87A-88A is necessary for continuance in these courses. 2 cred. per qtr., 6 cred. required; prereq. Ed. 55A-55B, Art Ed. 56-57, approval of director of student teaching. Hastie and others.

- Art Ed.86A-87A-88Af,w,s,† The Teaching and Supervision of Art. A methods course in the teaching of art in the elementary and secondary schools. The theoretical work is related to the student teaching and includes assignments, class work, discussions, and the evaluation of specific experiences and problems illustrating art education as it is and as it might become. Concurrent registration in Art Ed. 86-87-88 is required and successful completion of the work for each quarter in both Art Ed. 86-87-88 and Art Ed. 86A-87A-88A is necessary for continuance in these courses. 2 cred. per qtr., 6 cred. required; prereq. Ed. 55A-55B, Art Ed. 56-57, approval of director of student teaching. Hastie and others.
- Art Ed.151w. Curriculum Building in Art Education. Courses emphasizing analysis of the functions of art in society for educational potentialities toward social improvement. Exercises in selection, evaluation, and organization of subject-matter for purpose of creating original teaching units, projects, etc., to enrich the curriculum through the adaptation of general art materials not available to educators in convenient form for school purposes. Utilization of research materials and procedures developed on the Owatonna Art Education Project and related research in art education. 3 cred. Hastie.
- Art Ed.151-152. Curriculum Building in Art Education. 3 cred. per qtr. Not offered in 1950-51.
- Art Ed.156s. Intercultural Education through Art. A course designed to foster national unity and international understanding through recognition of the cultural contributions of diverse peoples to world-wide development and experience with special emphasis on twentieth-century exchange. Timely approaches toward understanding the fundamental problems arising out of current ethnic and racial conflicts will be considered in the light of specific needs of teacher, community worker, layman. 3 cred. Ar.
- Art Ed.157. Art Movements in Twentieth-Century Scandinavia. 3 cred. Not offered in 1950-51.
- Art Ed.184. Advanced Course in the Teaching and Supervision of Art in the Elementary School. For teachers in service and advanced students. Analysis of the elementary school as an institution for the dissemination of art education in our society. Emphasis on improving current practices through critical evaluation and utilization of research findings and introduction of new materials. The role of the supervisor and opportunities to develop closer cooperative relationships between the classroom teachers and art education specialists. 3 cred. Gayne. Not offered in 1950-51. Usually offered in Summer Session.
- Art Ed.185s. Advanced Course in the Teaching of Art in the Secondary School. For experienced teachers of art and advanced students who are planning to teach in secondary schools. Emphasis on significant general research and critical examination of high school art programs as they function in the lives of adolescent youth in a democratic society. Exercises in evaluating, planning, and administering art education programs at the secondary level. 3 cred. Hastie.
- Art Ed.189f. Application of Esthetic Theory in Education. Examination of contemporary theories of art, their psychological and philosophi-

cal foundations as revealed through experimental evidence. Application of tested principles of art education to improve programs of modern general education at elementary, secondary, and college levels. Open to teachers, supervisors, and administrators with or without previous experience in art who are concerned with making art function in general education. 3 cred. Hastie.

- Art Ed.284w. Research in Art Education. Application of research techniques to the field of art education, with experience in locating, defining, and studying basic problems through the use of objective tools of research. 2 cred. Gayne.
- Art Ed.295f,w,s. Problems in Art Education. The content of this course is determined by the individual specialization and creative projects selected. These projects may include advanced studio practice or technical solution of problems involving research or reading in a chosen field. Registration by special permission of major adviser. Cred ar. Gayne and staff.
- Art Ed.296f,w,s. Seminar in Art Education. Required without credit for one to three quarters of all M.Ed. and open to other advanced students in art education. Reports, evaluation of problems, recent literature. Participation by entire art education staff and guest specialists from related departments and from off campus. No cred. Art education staff.

CHILD WELFARE

- C.W.10s. Introduction to Child Study. Survey of child development, nursery school, parent education, and mental hygiene approaches to child study. 2 cred.; 3rd qtr. fr., soph. Cummings.
- C.W.40f,w,s. Child Training. A study of the physical and mental development of the child followed by a discussion of the problems of training of young children. Observations in the nursery school, lectures, and reports. (Not open to majors in the Nursery School-Kindergarten Curriculum.) 3 cred.; soph., jr., sr.; prereq. Psy. 1-2. Fuller, Peterson.
- C.W.80f,w,s. Child Psychology. A survey of child psychology and its applications to education of young children. 3 cred.; prereq. Psy. 1-2. Brieland.
- C.W.130f. Motor, Linguistic, and Intellectual Development of the Child. Analysis and interpretation of the scientific literature. Lectures, readings, and reports. 3 cred.; sr., grad.; prereq. 12 cred. psy. or equiv. Roff.
- C.W.131w. Personality, Emotional, and Social Development of the Child. Analysis and interpretation of the scientific literature. Lectures, readings, and reports. 3 cred.; sr., grad.; prereq. 12 cred. psy. or equiv. Templin.
- C.W.132s. Later Childhood and Adolescence. Growth, social adjustment, emotional, mental, and personality development. Training and guidance in leisure-time activities, educational and vocational interests. 3 cred.; sr., grad.; prereq. 12 cred. psy. or equiv. Harris.
- C.W.140f,w. Behavior Problems in Younger Children. Nature and origin of behavior difficulties in young children, with special reference to the relation between early behavior and later maladjustment. 2 cred.; sr., grad.; prereq. 12 cred. psy., ed. psy., or soc. Blodgett.
- C.W.141w,s. Behavior Problems in Older Children. Nature and origin of behavior difficulties in older children, with particular reference to readjustment in adolescence. 2 cred.; sr., grad.; prereq. 12 cred. psy., ed. psy., or soc. Blodgett.

- C.W.142s. The Psychology of Atypical Children. A survey of the scientific literature on children with physical and mental handicaps. Emphasis upon personal, social, and vocational adjustment. 3 cred.; sr., grad.; prereq. 12 cred. psy. Blodgett.
- C.W.143f. Problems of Mental Deficiency. The psychology of the mentally deficient; training, institutional and home care, social and vocational adjustment. Special problems in the clinical diagnosis and appraisal of mental deficiency. 3 cred.; sr., grad.; prereq. 12 cred. psy. Blodgett.
- C.W.150f-151w-152s. Childhood Education. Philosophy and methods of early childhood education; materials, equipment, community and home relations. 2 cred. per qtr.; sr., grad.; prereq. 12 cred. psy. Fuller.
- C.W.160s. Physical Growth and Development. The growth of the human body and its systems from early fetal life to maturity. 3 cred.; sr., grad.; prereq. 12 cred. psy. or equiv. Roff.
- C.W.166f. Maturity and Aging: Developmental Changes and Adjustment. Survey of scientific literature of changes in ability and learning that accompany maturity and senescence. 2 cred.; sr., grad.; prereq. 15 cred. psy., ed., or soc. Anderson.
- C.W.170s. Parent Education. History and survey of programs, materials, and methods. Administration and organization. Lectures, discussions, and reports. 3 cred.; sr., grad.; prereq. 15 cred. c.w., home ec. ed., psy., soc., or pub. health. Cummings.
- C.W.185s. Children in a Changing World. The effects of social change and social stress upon children. Some emphasis upon war, depressions, and catastrophies. Problems of reconstruction and rehabilitation. 3 cred.; sr., grad.; prereq. 12 cred. psy., ed., or soc. Templin.
- C.W.190w. Use and Interpretation of Tests for Children. Survey of mental testing from the point of view of the teacher, social worker, and others concerned with the use and interpretation of test results. 2 cred.; sr., grad.; prereq. 12 cred. psy., ed. psy., or soc. Roff.
- C.W.200f,w,s. Observation and Study of Children. Introduction to research and practical work. 1 cred.; prereq. 12 cred. psy. and 3 cred. stat., cons. of instr. Harris and staff.
- C.W.220f-221w-222s. Seminar in Current Research. Reports on completed research or research in progress. Discussion of methodology and results. 1 cred. per qtr.; prereq. cons. of instr. Roff.
- C.W.223f-224w-225s.* Seminar in Developmental Theory. Consideration of various developmental theories and their efficacy in interpreting developmental material. 1 cred. per qtr.; prereq. cons. of instr. Anderson.
- C.W.226w. Seminar in Projective Methods with Children and Adolescents. Demonstrations and discussions of doll play, drawing, painting, thematic methods, the Rorschach and other projective techniques used with children. Consideration of their possibilities and limitations as research tools and as clinical devices. 2 cred.; prereq. cons. of instr. Harris.
- C.W.227s. Multiple Factor Analysis. The principles of factor analysis as applied to psychometric problems. Considerations of mathematical rationale and of concrete psychological results. Practical work on specific projects to illustrate the logic of the procedures used. 2 cred.; prereq. cons. of instr. Roff.
- C.W.230f-231w-232s. Seminar in Recent Literature. Reviews of current literature, discussion of fundamental problems, and reports on research. Meetings in alternate weeks. 1 cred. per qtr.; prereq. cons. of instr. Anderson, Templin.

- C.W.233w-234s. Research Methods in the Study of Children. Laboratory exercises and problems. 2 cred. per qtr.; prereq. cons. of instr. Roff.
- C.W.240f-241w-242s. Practicum in Behavior Problems. Qualified students are given experience in the Parent Consultation Service of the Institute—parent counseling and application of diagnostic and remedial procedures in children's behavior problems. Cred. ar.; prereq. C.W. 140-141, cons. of instr. Harris, Blodgett.
- C.W.250f,w,s. Internship in Professional Work with Children. Experience under qualified supervision open under special conditions to graduate students with consent of department. Cred. ar.; prereq. cons. of instr. Anderson.
- C.W.270f-271w-272s.* Readings and Research in Child Development. Independent readings, research, and reports in any field such as physical growth, health problems, mental development, social behavior, nursery school theory, parent education, etc., which meets the approval of the listed instructors. Cred. ar.; prereq. cons. of instr. Anderson, Fuller, Harris, Roff, Templin.
- C.W.274w-275s. Technique and Field Work in Parent Education. Organization and administration of study groups, lesson plans, observations, and field work. Cred. ar.; prereq. C.W. 170, cons. of instr. Cummings.
- C.W.290w-291s. Mental Examination of Preschool Children. A study of the methods used in testing young children, together with supervised practice in the administration of a variety of tests and specific training in the interpretation of test results. 4 cred. per qtr.; prereq. 12 cred. in mental measurement, cons. of instr. Blodgett.

CURRICULUM AND INSTRUCTION

General Courses

- Ed.C.I.104s. Adult Education. This is a survey course of the field of adult education. It deals with agencies, programs, philosophies, history, and trends. Each student will be given opportunity to devote a part of his time to the field of his special interest. 3 cred. Nolte.
- Ed.C.I.105f,w,s. Visual Materials in Education. A study of the characteristics, advantages, limitations, and practical schoolroom use of visual materials of both nonprojection and projection types. Laboratory practice in operation of usual projection machines. Utilization in classrooms. The contribution of visual materials in counteracting verbalism and in the development of meaning. 3 cred.; sr., grad. Wendt.
- Ed.C.I.106w. Coordinating a Visual Education Program. A course intended for those individuals who have part-time or full-time responsibility for running an audio-visual program. Covers criteria of equipment, facilities, and materials, sources of materials, inservice training of teachers, and special problems encountered in both small and large systems. 3 cred.; prereq. Ed.C.I. 105 or cons. of instr. Wendt.
- Ed.C.I.107w,s. Radio in Education. The major purpose of the course is to assist teachers and prospective teachers in making the most effective use of radio in the classroom. This necessitates consideration of such aspects as production, techniques of classroom use, selection of equipment, teaching appreciation, and the administration of radio in the schools. Field trips, demonstrations, activities, and concrete examples are used wherever possible. The individual's needs and interests are met by permitting him to select for intensive study one of the several units into which the course is divided. 3 cred.; prereq. 9 cred. in ed. Tyler.

- Ed.C.I.107-108. Radio in Education. Same content as Ed.C.I. 107 but expanded somewhat and offered during two quarters. Not offered in 1950-51.
- Ed.C.I.109f,w,s. Audio-Visual Materials and Equipment Laboratory. A laboratory course on the production of simple audio-visual materials. Also provides practice in the operation of audio-visual equipment. 3 cred.; prereq. Ed.C.I. 105 or concurrent reg. or cons. of instr. Wendt, Luce.
- Ed.C.I.117s. Rural Education for Administrators and Teachers. 3 cred; prereq. cons. of instr. Archer. Not offered in 1950-51.
- Ed.C.I.129s. Principles and Problems of Teaching Social Hygiene. The course deals with social hygiene or sex education in its broadest aspects: physical, sociological, and psychological. Emphasis is placed on methods of social hygiene education at the elementary and secondary levels and integration of material with the total health curriculum. Intended primarily for teachers. 3 cred.; prereq. 9 cred. in ed. Pearce and others.
- Ed.C.I.133f. Consumer Education in the Schools. Need for consumer education. Organizing a program in the school. Contribution of various subject-matter areas. 3 cred. Price.
- Ed.C.I.145f,s. Remedial Reading. A study of the remedial practices in reading that are useful to both the classroom teacher and the reading specialist in the light of contributions of research, projects, and observations of remedial techniques. 3 cred.; prereq. recent course in reading or basic training in counseling or school psychological work. Bond.
- Ed.C.I.151w. Diagnosis and Treatment of Learning Difficulties. Evaluation of the results of teaching; diagnosis of pupil difficulty; development and prevention; tests as aids to teaching; following up a testing program. 3 cred.; prereq. Ed.C.I. 150 or basic training in counseling or school psychological work. Brueckner.
- Ed.C.I.152. Adjustment of Schools to Individual Differences. 3 cred.; prereq. 10 hrs. in ed. Ar. Not offered 1950-51.
- Ed.C.I.171f,w,s. Curriculum Laboratory Practice. A practice 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. 2-3 cred. per qtr.; prereq. cons. of instr., Ed.C.I. 170A or B. Bossing, Cook, Archer.
- Ed.C.I.174f-175w-176s. Clinical Methods and Practice in Speech Pathology. Case history and analysis; testing and diagnosis of speech defects; techniques and work programs for treatment; practical clinical work with children in public schools and with adults in the University Speech and Hearing Clinic. 3 cred. per qtr.; prereq. Sp. 61, 67, 85, 162 and 163 or concurrent reg. Bryngelson and staff.
- Ed.C.I.205f,w,s.* Problems in Visual Education. Cred. ar.; prereq. Ed.C.I. 105 and 106 or cons. of instr. Wendt.
- Ed.C.I.207f,w,s.* Problems in Radio Education. Individual problems for graduate students whose work in Ed.C.I. 107 has indicated a special aptitude and interest in the field. Each student selects a problem, studies it intensively, outlines the proposed procedure, and carries it through to completion under the guidance of the instructor. Meetings may be called from time to time to provide opportunity for group discussion and criticism of the individual problems. 1-3 cred.; prereq. Ed.C.I. 107. Tyler.

- Ed.C.I.215f,w,s.* Problems in the School Health Education Program. For advanced students who wish to pursue independent study and experimentation in school health education. Cred. ar.; prereq. cons. of instr. Grout.
- Ed.C.I.216f,w,s.* Field Work in the School Health Education Program. Practical field experience in school health education under the supervision of qualified health educators. Details will be worked out in accordance with individual needs of the students. Cred. ar.; prereq. cons. of instr. Grout.
- Ed.C.I.217f,w,s. Seminar in the School Health Education Program. Discussion and reports on current problems in school health education. Cred. ar.; prereq. cons. of instr. Grout.
- Ed.C.I.227.* Problems of Rural Education. Cred. ar.; prereq. Ed.C.I. 117. Archer. Not offered in 1950-51.
- Ed.C.I.243s. Recent Research in Reading. Critical analysis of methodology and findings of current research in the field of reading, appraising research methods, population limitations, and educational implications. Related to classroom instruction, diagnosis of disabilities, and psychology of reading. 3 cred.; prereq. cons. of instr. Bond.
- Ed.C.I.271f,w,s.* Problems in Curriculum Construction. Special problems in the field of the student's individual choice. 3 cred. per qtr.; prereq. cons. of instr. Bossing, Cook, Archer.
- Ed.C.I.273f,w,s.* Problems in Reading. A survey of recent problems, issues, studies, and findings. Intended for those who have had previous training in reading, who have a special problem, or who wish to survey the most recent literature. 3 cred. per qtr.; prereq. Ed.C.I. 143 or 144 or cons. of instr. Bond.

Elementary Education

- Ed.C.I.60Af,s. The Teaching of Reading in the Elementary School. Methods of teaching reading in the elementary school with emphasis on the primary grades. Includes the problems of reading readiness, development of word-meanings, and word recognition techniques. Lectures and discussions of the various means of directing reading experiences, observations of reading in elementary classrooms, and opportunity to examine the materials to be used in teaching reading to children. 3 cred.; prereq. Ed. 71B. Bond.
- Ed.C.I.60Bf,s. The Teaching of Reading in the Elementary School. Methods of teaching reading in the elementary school with emphasis on the intermediate and upper elementary grades. Includes the development of basic study skills, comprehension abilities, and interests and tastes in reading. Lectures and discussions of the various means of directing reading experiences, observations of reading in elementary classrooms, and opportunity to examine the materials to be used in teaching reading to children. 3 cred.; prereq. Ed. 71B. Bond.
- Ed.C.I.61f,s. The Teaching of the Social Studies in the Elementary School. 3 cred.; prereq. Ed. 71C. Ar.
- Ed.C.I.62Af. The Teaching of Arithmetic in the Primary Grades. The modern arithmetic program, the arithmetic curriculum, methods, evaluation of outcomes, diagnosis, instructional materials for young children. 2 cred.; prereq. Ed. 71B. Brueckner.

- Ed.C.I.62Bf,s. The Teaching of Arithmetic in the Intermediate Grades. The teaching of arithmetic in intermediate grades; the modern arithmetic program, the arithmetic curriculum, methods, evaluation of outcomes, diagnosis, instructional materials. 3 cred.; prereq. Ed. 71B. Brueckner (f), ar. (w,s).
- Ed.C.I.63f,w,s. Children's Literature. A study of the varied purposes of reading in the elementary school. Bases of selecting materials for extensive reading. Analysis of studies of children's interests. Extensive critical survey of old and new materials for children's reading. 2 cred. D. V. Smith (f,w), ar. (s).
- Ed.C.I.64w,s. The Teaching of English in the Elementary School. 3 cred.; prereq. Ed. 71B. D. V. Smith (w), ar. (s).
- Ed.C.I.65f,w,s. The Teaching of Science in the Elementary School. An overview of the objectives, content, materials, philosophy, and methods of instruction and evaluation of science teaching in the elementary school, with particular attention to practical applications to the classroom situation. 3 cred.; prereq. Ed. 71B, 10 hrs. nat. sci. Boeck.
- Ed.C.I.102f. Teaching the Social Studies in the Elementary School. Primarily for teachers in service. 3 cred.; prereq. Ed. 71C or equiv. Wesley.
- Ed.C.I.103. Teaching of Science in the Elementary School. Primarily for teachers in service. 3 cred. Offered in summer terms only.
- Ed.C.I.119w. Elementary School Curriculum. A study of the principles underlying the selection and organization of subject-matter for courses in the elementary school and a survey of the methods, problems, and findings of research by subjects. 3 cred.; prereq. Ed. 71C or equiv. Cook.
- Ed.C.I.130w,s. Problems of Childhood Education. Lectures, readings, and reports on the philosophy and current methods of early childhood education. Application of educational principles to classroom problems. 2 cred.; prereq. 9 cred. in ed. Fuller.
- Ed.C.I.143f. Teaching and Supervision of Reading in the Elementary School. A study of the objectives, the materials, and the teaching procedures in lower and intermediate grades in the light of the contributions of research; survey of current practices and curricula; class and individual projects; observation of reading techniques and materials in the demonstration school. 3 cred.; prereq. 9 cred. in ed. Bond.
- Ed.C.I.146. Current Developments in Language Expression in the Elementary School. A general course in the function and development of language power in connection with all the experiences of the school day; materials, methods, and current philosophies of language in the elementary school. Not open to students who have had Ed.C.I. 64. 2 cred.; prereq. 71C or equiv. Not offered 1950-51.
- Ed.C.I.149w. Teaching and Supervision of Arithmetic in the Elementary School. Function of arithmetic instruction; curriculum studies; development of socialized units; measurement and diagnosis; experimental research on methods of arithmetic instruction; literature on arithmetic. 3 cred.; prereq. Ed. 71C or equiv.; not open to those with cred. in Ed.C.I. 62A or B. Brueckner.
- Ed.C.I.150f. Supervision and Improvement of Instruction. An analysis of the functions and duties of a supervisor as related to the improvement of instruction; specific supervisory technique; objective analysis of classroom activity; concrete applications to present-day problems; case studies. 3 cred.; prereq. Ed. 71C or equiv. Brueckner.

- Ed.C.I.153. Supervision and Teaching of English in the Elementary Schools. Improvement of instruction in language, grammar, spelling, and handwriting; the results of scientific investigation; use of standardized and informal tests; remedial work. 3 cred.; prereq. Ed. 71C or equiv. Archer. Not offered in 1950-51. Usually offered in the Summer Session.
- Ed.C.I.157f,w,s. Practice in Supervision. Individual work on special supervisory problems; especially intended for supervisors in training. 3 cred.; cons. of instr. Brueckner.
- Ed.C.I.162su. Laboratory in Nursery School and Kindergarten Instructional Practices. Daily observation of groups of children in the school setting with discussion of program planning, techniques of management, record keeping, and care and use of materials. Survey of current practices in organizing group and individual projects in the light of child development research. Open to experienced teachers; other professional workers admitted by special permission. 3 cred. Ar.
- Ed.C.I.163su. Plastic Materials, Story Telling, and Social Studies for Young Children. A study of current trends, objectives, and procedures in the selection and use of books, stories, social studies and art, plastic and handicraft materials in the nursery school and kindergarten and primary grades. Consideration of research contributions and new developments in this area. Observation in the demonstration schools and experience in the practical preparation of materials for school use. Open to experienced teachers; other professional workers admitted by special permission. 3 cred. Ar.
- Ed.C.I.164su. Play Materials, Rhythms, and Nature Study for Young Children. A study of current trends, objectives, and procedures in the selection and use of play equipment, toys, music, and materials in the nursery school and kindergarten and primary grades, and in the home life of the child. Consideration of research contributions and new developments in this area. Observations in the demonstration schools and other agencies and experience in the practical preparation of materials for school use. Open to experienced teachers; other professional workers admitted by special permission. 3 cred. Ar.
- Ed.C.I.170A. 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 elementary school level. 3 cred.; prereq. Ed.C.I. 119 or equiv. Ar. Not offered in 1950-51.
- Ed.C.I.173As. Organizing Units of Instruction in the Elementary School. A consideration of the principles and procedures involved in the organization of units (center of interest units, activity units, experience units, etc.) utilizing natural science and social studies content in the development of reading skills, oral and written composition skills, arithmetic skills, study skills, and desirable social behavior. 3 cred.; prereq. Ed.C.I. 119 or teaching experience. Cook.
- Ed.C.I.181w. Foundations of Elementary School Methods. A survey of the current philosophy and research which form the basis for improvement of elementary school instruction. Observation in the demonstration school. 3 cred.; prereq. 9 cred. in ed. Brueckner.
- Ed.C.I.226f,w,s. Seminar in Elementary School Problems. No cred. Brueckner, Bond, Cook, Archer.
- Ed.C.I.261f,w,s.* Special Problems in the Improvement of Instruction. Intended primarily for graduate students majoring in supervision

- and others qualified to make intensive studies of specific problems related to school supervision. Fall, surveys of instruction; winter, construction of tests for measuring the extent to which objectives are achieved; spring, problems in the evaluation of teaching. Cred. ar.; prereq. cons. of instr. Brueckner.
- Ed.C.I.263w.* Research in Arithmetic Instruction. A study of recent research in curriculum, gradation of subject-matter, materials, and supervision of arithmetic. Cred. ar.; prereq. Ed.C.I. 149 or equiv. Brueckner.
- Ed.C.I.264s.* Research in Educational Diagnosis. A study of recent research in the methods of diagnosis in education, and the techniques of preventive and remedial teaching. Cred. ar.; prereq. Ed.C.I. 151 or equiv. Brueckner.
- Ed.C.I.265f,w,s.* Research in Supervision. A study of recent research in supervision, teacher rating, surveys of instruction, and school and community relations. Cred. ar.; prereq. cons. of instr. Brueckner.

Secondary Education

- Ed.C.I.58f,w,s. Core Curriculum Foundations. A study of the methods and techniques of teaching applicable to the core curriculum. Special attention will be given to problem solving techniques, observation and demonstration teaching, and the preparation of units of instruction. For sophomores and juniors in the core curriculum program. 1 cred.; prereq. cons. of instr. Cary, Davies.
- Ed.C.I.113f,w. High School Curriculum. A study of viewpoints and curriculum issues; reorganization trends; typical research findings by subjects and the analysis of selected state and local curricula. 3 cred.; prereq. Ed. 55A-B or equiv., cons. of instr. Davies (f), Grim (w).
- Ed.C.I.122s. Literature for Adolescents. Background for pupil guidance in extensive reading in junior and senior high schools; analysis of studies of adolescent choices in literature; principles of selection; critical reading in broad fields of literary, biographical, historical, scientific, and vocational interests of boys and girls. 2 cred.; prereq. Ed.55B or junior-senior high school teaching experience. D. V. Smith.
- Ed.C.I.125f,w,s. Occupational Information Laboratory. Experience in using, reviewing and evaluating occupational information. Study of sources and types of material, occupational filing plans and practical techniques at the secondary school level. 1 cred.; enrolment limited to 12. Dugan.
- Ed.C.I.131. Advanced Course in Teaching the Technical Business Subjects. Recent research and trends in teaching the technical business subjects of typewriting, shorthand, transcription, office and secretarial procedure. 3 cred. Price. Not offered in 1950-51.
- Ed.C.I.132s. Teaching the Basic Business Subjects. Recent trends and developments in teaching junior business training, economic geography, marketing, business law, consumer education, and bookkeeping. 3 cred. Price.
- Ed.C.I.133f. Consumer Education in the Secondary Schools. Need for consumer education. Organizing a program in the school. Contribution of various subject-matter areas. 3 cred. Price.
- Ed.C.I.134w. Materials and Methods in Consumer Education. Significant areas in consumer education; choosing and buying goods and services; financial problems; economic status of the consumer; aids and pro-

- tection. Development of teaching units. Emphasis on teaching methods and recent aids and materials. 3 cred.; prereq. Ed.C.I. 133 or cons. of instr. Price.
- Ed.C.I.135s. Group Procedures in Guidance. Problems of group work in guidance in secondary schools. Content and materials for home room groups, occupations units, and other guidance courses in junior and senior high school. 3 cred.; prereq. 9 cred. in ed., Ed.Psy. 133 or cons. of instr. Dugan.
- Ed.C.I.136f. Organization and Supervision of Distributive Education Programs. Principles and practices followed in developing cooperative part-time, extension part-time, and evening school programs under the George-Barden Act, and nonreimbursable programs. A basic course for teachers, coordinators, and administrators of distributive education programs. 3 cred. Meyer.
- Ed.C.I.139w. Coordination Techniques in Business Education. Practical problems encountered by the coordinator in his daily work concerning the cooperative part-time program. Guidance and selection; placing students in work stations; assisting in work adjustments; developing the training program; correlating school work and job experience. 3 cred. Meyer.
- Ed.C.I.141s. Cooperative Part-time Distributive Education Classes. A study of the cooperative part-time program including planning a program, curriculum building, promoting the program, plant and equipment, and program evaluation. 3 cred. Meyer.
- Ed.C.I.144w. Teaching of Reading in Secondary Schools. A study of the teaching procedures, objectives, and materials, with special consideration for the teaching of reading in the various subject-matter fields. 3 cred.; prereq. 9 cred. in ed. Bond.
- Ed.C.I.156s. Trends in Business Education. Development of business education; trends and problems in administration and supervision; relation between business education in the high school and other agencies. 3 cred. Price. Offered 1951-52.
- Ed.C.I.161s. Curriculum Construction in Business Education. A study of curriculum problems in business education, including organization, with emphasis on preparation of teaching units. 3 cred.; prereq. Ed.C.I. 113 or cons. of instr. Price. Offered 1951-52.
- Ed.C.I.168w. Current Developments in the Social Studies. A survey of contemporary literature, curricular trends, and developments in method. 2 cred.; grad. Wesley.
- Ed.C.I.169w. Extracurricular Activities. Types of activities in junior and senior high schools; aims and values; practices in organizing, administering, and supervising; methods of evaluation. 4 cred.; prereq. Ed.55A-B or equiv., cons. of instr. Bossing, Davies.
- Ed.C.I.170Bs. Curriculum and Course of Study Construction. A study of the principles and methods for selection and organization of units, courses of study, and curricula at the secondary school level. 3 cred.; prereq. Ed.C.I. 113 or 119, 170, cons. of instr. Bossing. Not offered in 1950-51.
- Ed.C.I.173Bs. Organizing Units of Instruction in the Secondary School. Philosophical and psychological basis of the unit. Development of principles and procedures for construction and teaching of units of instruction at the secondary school level. 3 cred.; prereq. Ed.C.I. 113, cons. of instr. Bossing. Not offered 1950-51.

- Ed.C.I.198s. Recent Literature in Methods and Curriculum in Secondary School English. (Students should not register for this course in the same year with Ed.C.I. 294.) 2 cred.; prereq. Ed.T. 66A-B-C or Ed.T. 75, 75A-B-C or equiv. D. V. Smith.
- Ed.C.I.199Ef,w,s. Internship. Advanced supervised teaching and practice work at the graduate level for candidates for the master of education degree. Cred. ar. Grim.
- Ed.C.I.201f,w,s.* Problems in Teaching the Social Studies. A seminar on general problems. Each student studies one problem intensively and gives oral reports and a final written report. 3 cred. per qtr.; prereq. cons. of instr. Wesley.
- Ed.C.I.204s. Social Studies Curriculum. A review of the techniques and practices of curriculum-making in the social studies at all grade levels. 3 cred. Wesley.
- Ed.C.I.225f,w,s.* Special Problems in Supervision of Instruction in Secondary Schools. Study of special problems in supervision primarily for graduate students and supervisors in schools who are qualified to make intensive studies. Consult instructor before registering. Cred. ar.; prereq. cons. of instr. Boardman, Keller.
- Ed.C.I.238f,w,s.* Problems in Distributive Education. Investigation of particular problems in the field of distributive education; intended for those qualified to make intensive studies. Cred. ar. Meyer.
- Ed.C.I.239f,w,s.* Problems in Business Education. Special investigations in the field of the student's interest. Consult instructor before registering. Cred. ar. Price.
- Ed.C.I.254s. Supervision of the Social Studies. Reviews of techniques of supervision as applied to the social studies. Particular attention to curriculum making and measurement. 3 cred. Wesley.
- Ed.C.I.266s. Supervision of High School Instruction. Modern concepts of the nature, scope, and functions of supervision; functions and responsibilities of supervisors; organizing for the improvement of instruction; procedures for developing a program for improving instruction; methods and procedures in improving instruction. 3 cred. Boardman.
- Ed.C.I.287f.* Advanced Course in the Teaching of Science. A study of recent developments in the teaching of science and a critical evaluation of the investigations dealing with science teaching. 3 cred.; grad. P. O. Johnson.
- Ed.C.I.293.* Foundations of Secondary School Methods. A study of the investigations which form the bases of the technique of high school instruction and the application of their results to subject matter and to classroom procedure. Each member will work primarily in the field of his teaching choice, with a final synthesis by the class as a whole. 3 cred. Not offered in 1950-51.
- Ed.C.I.294f.* Advanced Course in Methods of Teaching English. Evaluation of present practices in methods and content of junior and senior high school English courses in the light of the known results of scientific investigations in that field. 2 cred.; prereq. Ed.T66A-B-C or equiv. D. V. Smith.
- Ed.C.I.296f,w,s.* Special Problems in Teaching English. Special research problems in the field of the student's individual choice. Cred. ar. D. V. Smith.

Higher Education

- Ed.C.I.184f. Supervision of Student Teaching. Primarily for teachers engaged in the supervision of student teachers in elementary and secondary education. 2 cred.; prereq. 10 cred. in ed. or cons. of instr. Grim.
- Ed.C.I.228f,w,s.* Problems of Higher Education and Teacher Training. Problems of student personnel, of college curricula and instruction, of organization and administration. Offered as a class course once a year and as an individual problems course each quarter. Cred. ar.; prereq. cons. of instr. Peik, Eckert, Grim.
- Ed.C.I.250f,w. Higher Education in the United States. A survey of the historical development of institutions of higher education and a consideration of the following topics: the functions of higher education in a democracy; types of higher institutions; the articulation of secondary and higher education; readjustments in organization and administration, curriculum and instruction; the control of higher education; the evaluation of higher institutions by accrediting agencies. This course is designed as an introduction to the sequence of courses in higher education and is also designed for graduate students in academic fields who wish a survey of the problems of colleges and universities. 3 cred.; prereq. 18 cred. in ed. or cons. of instr. Eckert.
- Ed.C.I.251w. Curriculum Trends in American Colleges. A study of basic principles underlying the derivation of content of college curricula and the organization of these materials into units, courses and sequences. The functional relationship of curriculum and aims will be stressed, as well as promising means of orienting the curriculum to known characteristics of students. After examination of the curriculum as a whole and the relative emphasis placed on general and special education in selected college plans, critical study will be given to problems and issues involved in the development of general education sequences. 3 cred.; prereq. 18 cred. in ed. or cons. of instr. Eckert.
- Ed.C.I.252s. Effective College Teaching. A review of the philosophical and psychological bases of instruction, with particular attention to their meaning for the guidance and encouragement of student learning at the college level. Various methods of teaching will be studied with a view to discovering their contributions toward attainment of important educational objectives. In this connection a number of investigations dealing with various teaching methods and administrative devices (such as sectioning and changes in class size) will be critically analyzed. Some observation of college classes will be expected. 3 cred.; prereq. 18 cred. in ed. or cons. of instr. Eckert.
- Ed.C.I.284f,w,s.* Problems in Student Teaching. Special research problems in the supervision, organization, and administration of student teaching on the elementary and secondary levels in various types of teacher education institutions. 3-9 cred.; prereq. consent of instr. Grim.
- Ed.C.I.285s. The Professional Education of Teachers. A basic course for present and future instructors and administrators in departments and colleges of education and teachers colleges, and for supervising teachers in laboratory schools. The historical development and present status of teacher education and of the teaching profession; the problems that relate to the program of studies, curricula, and courses. Recent trends, issues, research. 3 cred.; prereq. 15 cred. in ed. Grim.

EDUCATIONAL ADMINISTRATION

General Courses

- Ed.Ad.124f. Public School Administration. The organization, administration, and general support of public schools in states and local school districts. 3 cred.; sr.; prereq. 9 cred. in ed. Neale.
- Ed.Ad.210s.* Financial Aspects of Public School Business Administration. Financial program planning, budgeting, accounting, cost finding, income and expenditure control; and the preparation and analysis of financial reports. 3 cred.; prereq. Ed.Ad. 227. Neale.
- Ed.Ad.225f.* Pupil Personnel Administration. Child accounting records and reports, attendance department, school census, pupil adjustment and progress, pupil health and safety and legal aspects of pupil personnel administration. 3 cred.; prereq. Ed.Ad. 124. Neale.
- Ed.Ad.226s.* School Plant Planning and Management. Plant program planning and financing, including operation and maintenance of public school buildings. 3 cred.; prereq. Ed.Ad. 227. Neale.
- Ed.Ad.227w.* Teacher and Employee Administration. Employment practices, salary schedules, personnel records and reports, welfare procedures, improvement in service and legal aspects of instructional and noninstructional school employee administration. 3 cred.; prereq. Ed.Ad. 225. Neale.
- Ed.Ad.228f,w,s.* Special Problems in Educational Administration. This course is designed primarily for superintendents and principals qualified to make extensive studies of specific problems related to the administration of a school system. 1-3 cred. prereq. Ed.Ad. 225. Neale.
- Ed.Ad.230f.* Public Relations for Schools. Theory and practice of educational interpretation. Principles involved; machinery and personnel; the teacher's contacts with the community; the role of the pupil; professional and lay organization. 3 cred.; prereq. Ed.Ad. 225. Neale.
- Ed.Ad.235f,w,s. Seminar in Educational Administration. Enrolment limited to candidates for Master's degrees under Plan A and candidates for Ph.D. degrees in educational administration. No cred. Neale.
- Ed.Ad.250f,w. School Surveys. 3 cred.; prereq. Ed.Ad. 227. Neale.

Elementary Education

- Ed.Ad.115w. Organization of the Elementary School. Problems relating to the organization for instruction and classification of pupils in elementary schools with critical examination of current practices. 3 cred.; prereq. 9 cred. in ed. Neale.

Secondary Education

- Ed.Ad.167s. Junior High School. Sources of the movement; purposes, functions, and limitations; types of reorganization; fundamental problems of reorganization; reorganization of subject matter. 3 cred.; sr., grad.; prereq. 9 cred. in ed. Bossing, Davies.
- Ed.Ad.218f,w,s. Recent Literature in Secondary Education. Cred ar. Boardman, Bossing.
- Ed.Ad.263f. Organization of the Secondary School. The organization of secondary school units, types of schools, and internal organization for administration and supervision. 3 cred. Boardman.
- Ed.Ad.264w. Administration of the Instructional Activities in the Secondary School. The administration of guidance, provisions for scholarship, curriculum, extracurricular activities, and school control. 3 cred. Boardman.

- Ed.Ad.265s. Administration of Noninstructional Activities in the Secondary School. Housing, finance, marks, forms, records, reports, and community relationships. 3 cred. Boardman.
- Ed.Ad.270f,w,s.* Special Problems in Secondary Education. A course designed for those qualified to undertake research. Consult instructor before registering. Cred. ar., maximum 9. Boardman, Bossing, Keller, Stout.

Higher Education

- Ed.Ad.253. Administration in Higher Education. Control, faculty and employee personnel administration, budget making and administration, financial accounting and reporting, protection of college funds, public relations. 3 cred.; prereq. cons. of instr. Neale. Not offered 1950-51.
- Ed.Ad.274w. The Junior College. The present status of the junior college, its development, purposes and functions, organization, curriculum, and probable trends. 3 cred.; prereq. cons. of instr. Boardman.
- Ed.Ad.290. Financing Higher Education. 3 cred.; prereq. cons. of instr. Neale. Not offered 1950-51.

EDUCATIONAL PSYCHOLOGY

General Courses

- Ed.Psy.60f,s. Introduction to Measurement and Statistics. This course includes a study of measures of central tendency, variability, and correlation as well as principles of test construction. 2 or 3 cred.; prereq. 6 cred. in psy. Van Wagenen.
- Ed.Psy.120f,s. Basic Principles of Measurement. Principles of measurement applied to the construction and evaluation of tests and to the interpretation of scores. Illustrations from achievement, intelligence, interest, attitude, and personality tests. Each student will have an opportunity to construct an examination in the field of his major interest. 3 cred.; prereq. 60 or equiv. Cook.
- Ed.Psy.125f,w,s. Social Structure of Student Groups. A survey of available literature on group dynamics emphasizing social-psychological aspects of group learning situations and instructional method; application of selected concepts and theories by group experimentation. 3 cred.; sr., grad. Flanders.
- Ed.Psy.133f. Basic Procedures in Student Personnel Work. Basic principles and current practices in the development and operation of a student personnel program. Emphasis on broad areas of guidance services and related techniques. Section 1, sr. and grad. students; section 2, limited to ed. psy. majors. 3 cred.; prereq. 9 cred. in ed. Dugan.
- Ed.Psy.140w. Instruments and Techniques of Measurement. An intensive study of selected instruments for measuring intelligence, achievement, interests, attitudes, and personality traits with emphasis upon their use in educational guidance, personnel work, administration, and supervision. Laboratory practice two hours per week. 3 cred.; sr., grad.; prereq. 120 or equiv. Cook.
- Ed.Psy.142f,w. Individual Mental Testing. Application of basic principles of mental measurements to individual diagnosis. Demonstrations of several types of tests in consideration of other clinical procedures. Principles of mental test interpretation and reporting, and develop-

ment of efficiency in the use of the Revised Stanford-Binet. Student should have time available for the practice administration of tests, one full day or two mornings per week being needed during testing period. 3 cred.; sr., grad.; prereq. 120 or equiv. Delp.

- Ed.Psy.143s. Advanced Individual Mental Testing. Development of proficiency in administering and interpreting three or four selected individual mental tests. Seminar for discussion of all tests being used by the entire group. 3 cred.; prereq. 142 and cons. of instr. Delp.
- Ed.Psy.144s. Individual Adult Testing. Demonstration and practice in the use of the Wechsler-Bellevue Adult Intelligence Scale. Use of Kent EGY and other tests applicable in personnel work. Recommended primarily for industrial personnel workers whose duties in test administration will be a minimum part of their professional position. Time must be available for practice testing, one full day or two mornings per week being needed during the testing period. 2 cred.; prereq. 120 or equiv. Delp.
- Ed.Psy.150f,w,s. Psychoeducational Clinic. A practice course for students with background in individual mental testing or remedial reading. Work with cases in the Child Study Center and in other agencies. 2-6 cred.; prereq. 142 or Ed.C.I. 145 and cons. of instr. Bond, Delp.
- Ed.Psy.159f,s. Personality Adjustment and Mental Hygiene. A survey course for educational workers, particularly teachers and counselors. Emphasis on an understanding of the factors involved in personality development and on the preventive rather than the remedial phases of mental hygiene. Attention given to the various types of maladjustments and discipline problems as well as to the conditions under which a teacher or counselor can safely attempt remedy or treatment. 3 cred.; sr., grad. Wrenn.
- Ed.Psy.182f. Education of Exceptional Children. Overview of the field of special education at all levels and for all degrees of exceptionality. Especially for classroom teachers, counselors, supervisors, and administrators; also the initial course for students working for special class certificates. Two papers required, equivalent to one quarter credit. 3 cred.; prereq. Ed. 55B or 71C or equiv. Delp.
- Ed.Psy.183s. Education of Gifted Children. A study of the abilities and characteristics of intellectually gifted children and adults. 2 cred.; prereq. Ed. 55B or 71C or equiv. Van Wagenen.
- Ed.Psy.184. Education of the Slow-Learning Child. (See Course 187.) 2 cred.; prereq. 182. Delp. Not offered in 1950-51.
- Ed.Psy.185s. Education of the Auditorially Handicapped. (See Course 187.) 2 cred.; prereq. 182. Delp.
- Ed.Psy.186. Education of the Visually Handicapped. (See Course 187.) 2 cred.; prereq. 182. Delp. Not offered in 1950-51.
- Ed.Psy.187. Education of the Crippled. 2 cred.; prereq. 182. Delp. Not offered in 1950-51.

NOTE: Courses 184, 185, 186, 187 (above) include study of the characteristics and abilities of the groups indicated, with discussion of methods and materials for their training, and observation of teaching situations involving these groups. Alternated in various regular and summer terms.

- Ed.Psy.208w.* Methods in Educational Research. A study of the methods and techniques employed in the investigation and reporting of educational problems. Designed to aid students in the preparation of theses and of reports for projects under Plan B. Suggested for all candidates for graduate degrees. 3 cred.; grad. P. O. Johnson.

- Ed.Psy.216f-217w-218s. Statistical Methods in Education. A course at the graduate level designed to lay the foundations of statistical theory and to develop the craftsmanship necessary to put theory to application, with special reference to educational and psychological problems. 3 cred.; grad. P. O. Johnson.
- Ed.Psy.216af-217aw-218as. Statistical Methods in Education Laboratory. For students who wish more experience in the solution of problems and the use of machines than is obtained in the lecture course 216-217-218. 2 cred. P. O. Johnson, Moonan.
- Ed.Psy.219f. Design and Analysis of Statistical Investigations. For students who desire a functional knowledge of modern principles of designing efficient experiments and other types of observational programs, improved sampling techniques, and the correspondingly appropriate methods of analyzing observational results. 3 cred.; prereq. 218 or cons. of instr. P. O. Johnson.
- Ed.Psy.220w-221s. Advanced Theory of Measurement. An examination of the principles underlying construction and use of psychological and measuring instruments and of the limitations of tests for purposes of measurement in experimentation and evaluation of students' work. 2 cred. per qtr.; prereq. 60 or 120, 216 or equiv. Van Wagenen.
- Ed.Psy.225w,226s.* Diagnosis and Counseling in a Student Personnel Program. An advanced course, requiring recent background in both psychological measurement and the principles of guidance. Stress on skill in interpreting diagnostic material rather than on theory. Attention to dynamic factors in diagnosis and therapy, case analysis, various approaches in interviewing. Use of case studies and demonstrations. 225: diagnosis; 226: interviewing and therapy. 3 cred. per qtr.; prereq. 140 and 133 or equiv. or 140 concurrently. Wrenn.
- Ed.Psy.233f,w,s.* Problems in Guidance and Personnel Work. An individual research course for investigations of particular problems in the student personnel field on an individual project basis. No class meetings. 1 to 9 cred. Edwards, Wrenn, Dugan.
- Ed.Psy.240f,w,s.* Problems in Measurement. Intensive study and individual research in problems of educational and vocational measurement. 2-3 cred. per qtr. P. O. Johnson.
- Ed.Psy.243f,w,s.* Problems in Statistics for Students in Education and Psychology. A seminar devoted to recent developments in statistical science with special reference to the applications to educational and psychological problems. To carry credit individual projects are required. 3 cred. per qtr. P. O. Johnson.
- Ed.Psy.253f,w,s.* Research Problems. Cred. ar. All graduate faculty in ed. psy.
- Ed.Psy.260f,w,s. Educational Psychology Seminar. For all Ph.D. majors in educational psychology. This seminar meets about five times a quarter for the purpose of integrating course work in all areas of educational psychology, analyzing new developments, and presenting Ph.D. dissertation outlines. No cred. Ed. psy. staff.
- Ed.Psy.283. Problems of the Gifted Child. 2 cred.; prereq. 183 or experience and cons. of instr. Delp.
- Ed.Psy.284. Problems of the Slow-Learning Child. 2 cred.; prereq. 184 or experience and cons. of instr. Delp.
- Ed.Psy.285. Problems of the Auditorially Handicapped. 2 cred.; prereq. 185 or experience and cons. of instr. Delp.

Ed.Psy.286. Problems of the Visually Handicapped. 2 cred.; prereq. 186 or experience and cons. of instr. Delp.

Ed.Psy.287. Problems of Crippled Children. 2 cred.; prereq. 187 or experience and cons. of instr. Delp.

NOTE: Courses 283, 284, 285, 286, 287 (above) offer advanced study in the fields indicated for persons working in special education or having other special qualifications. Alternated in various regular and summer terms. Consult instructor as to offerings.

Ed.Psy.289. Survey of Special Education Problems. Advanced course for persons working in special education or in allied fields. In selected quarters, this course will be limited to groups from special areas, such as clinical psychology. 2 cred.; prereq. 182 or experience and permission of instructor. Delp. Not offered in 1950-51.

Ed.Psy.290f,s. Individual Differences. A study of group and individual differences and their relations to educational practice. 3 cred. Flanders.

Ed.Psy.292.* Recent Literature in Educational Psychology. Readings and reports on problems in educational psychology. 3 cred.; prereq. cons. of instr. Ar. Not offered in 1950-51.

Ed.Psy.293w.* Psychology of Learning. A systematic study of theories and research in human learning and their implications for curriculum and instruction. 3 cred.; prereq. 12 cred. in psy. and ed. psy. Mork.

Ed.Psy.294.* Recent Theory and Research in Human Learning. 3 cred.; prereq. cons. of instr. Ar. Not offered in 1950-51.

Elementary Education

Ed.Psy.113f-114w-115s. Psychology of Elementary School Subjects. A discussion of the research studies in the field of psychology of elementary school subjects. 2 cred. per qtr.; prereq. 9 cred. in ed. and psy. Van Wagenen.

Secondary Education

Ed.Psy.158s. Psychology of Adolescence. A study of changes characterizing the transition from childhood to adult life. Implications for guidance during the period of secondary education. 3 cred.; prereq. Ed. 55B or equiv. Edwards.

Ed.Psy.282f,w,s. Practice in High School Personnel Work. Experience in counseling, testing, and related personnel work procedures in the high school program. Weekly case study conferences with staff. 3 cred.; prereq. 133, 120, and cons. of instr. Dugan.

Higher Education

Ed.Psy.250f. College Student Personnel Work—Development and Administration. For advanced students planning to become college personnel workers, teachers, or administrators. Attention given to place of student personnel program in the institution and the administration of that program. 3 cred.; prereq. one course in higher ed. Wrenn.

Ed.Psy.251f,w,s. College Student Personnel Work. Weekly seminar discussions of specialized phases of college student personnel and non-educational personnel work. Fall: student activities; winter: personnel services; spring: coordination with nonacademic personnel procedures. 1 or more cred.; prereq. 250 or equiv. Wrenn.

- Ed.Psy.254s. Measurement and Evaluation in Higher Education. A consideration of the examination program in American institutions of higher learning; principles of examination at the college level; the design of investigations and the critical evaluations of investigations in higher education. 3 cred.; grad. P. O. Johnson.
- Ed.Psy.281f,w,s. Practice in Personnel Work. Use of various counseling agencies to give properly qualified students supervised experience in the use of psychological and related methods in dealing with individuals at college and adult levels. All quarters. 1 to 3 cred. per qtr.; prereq. Ed.Psy. 225 and 226. Hagenah, Edwards, Wrenn.

HISTORY AND PHILOSOPHY OF EDUCATION

"Philosophy of education" is the deliberate effort to think as critically and adequately as possible regarding the work of the schools. An examination of the courses listed below will reveal that they fall into a certain pattern; also that they suggest increasing complexity and depth as the numbers increase. The *basic sequence* of courses in philosophy of education includes H.Ed. 76, H.Ed. 180, H.Ed. 141 and H.Ed. 242. The other courses offered represent more intensive developments of certain crucial problems encountered in the *basic sequence*.

General Courses

- H.Ed.71f,w,s. Brief Course in History of Education. Current school problems and educational theories in the light of their history. Emphasis upon eighteenth and nineteenth centuries, the work of great educators, and education in the United States. 5 cred. Alexander.
- H.Ed.76f. Introduction to Philosophy of Education. The effort will be made in this course to view the educational process as a whole, noting and studying the crucial problems and issues that are now facing American teachers: defining democracy, selecting basic subject matter, school and classroom management, testing and evaluating pupil progress, and the like. The student will be encouraged to enter upon the task of building for himself an intellectually defensible, adequate philosophy of education and of life. 3 cred. Beck.
- H.Ed.101f. Historical Foundations of Modern Education. Historical analysis and interpretation of the more important elements in modern education derived from the Greeks, Romans, Ancient Hebrews, Middle Ages, and Renaissance. 3 cred. Alexander.
- H.Ed.102w. History of Modern Secondary and Higher Education. A historical study of the origin, aims, growth of existing types of American and European secondary schools. 3 cred. Alexander.
- H.Ed.103. History of Modern Elementary Education. The development of educational theory and the evolution of the common school. Not open to students who have had H.Ed. 71. 3 cred. Alexander. Not offered in 1950-51.
- H.Ed.110w,s. Intercultural Education. A critical analysis of the interpersonal and intergroup conflicts of our times that are manifested in such behaviors as prejudice and discrimination. The effort is made to help teachers develop the insights, understandings, and techniques that they may use in helping our people to reduce their interpersonal and intergroup conflicts. 3 cred. Cary.

- H.Ed.131w. Comparative Education. An examination of selected educational programs abroad in terms of their historical roots and contemporary cultural settings. The possibilities of a democratic international approach to education will be explored. 3 cred. Beck.
- H.Ed.141f. Critical Issues in Contemporary Education. This course assumes H.Ed. 76 or its equivalent in terms of familiarity with current educational literature. The object of this course is to relate selected competing educational theories with current, conflicting social theories. Special consideration will be given to such concepts as individualism, success, social progress, authority, discipline, security, and the like. 3 cred. Cary, Beck.
- H.Ed.155s. History of Education in the United States. A survey of the development of elementary and secondary schools in the United States with special emphasis on the nineteenth century. 3 cred. Alexander.
- H.Ed.178w. Education and the Problems of American Democracy. An examination of current conflicting conceptions of democracy in light of modern developments in psychology including social psychology and mental hygiene, social anthropology, economics, international relations, semantics, and related fields. In the light of the foregoing, an effort will be made to help the teacher identify the crucial problems facing democracy today and to formulate appropriate hypotheses for the guidance of education in dealing with these problems. 3 cred. Cary.
- H.Ed.179f. Critical Thinking for Teachers. An examination of current conflicting views relative to the nature of thinking in the light of findings in the field of educational psychology. These insights will be used as a basis for developing a methodology of problem solving that may be employed by teachers in dealing with problems and issues faced by pupils, parents, and others in the local community. In this effort, some use will be made of the subject matters of the various schools of logic. 3 cred. Cary.
- H.Ed.180f,w,s. The School and the Social Order. This course is required of all seniors in the College of Education. It gives students an opportunity to integrate the subject matters of their various courses and their various points of view in thinking about the role that the school should play in present-day society. Students share with the instructor in selecting the special problems that are studied. Some of these recurring problems include democracy and education, human nature and education, religion and the public schools, group conflicts and education, and the world situation and education. The course employs certain of the techniques of group dynamics, such as committee study, general discussions, and group evaluation. A basic objective of the course is to stimulate the student to enter upon the long-time effort of developing for himself a personal-social, integrated philosophy of education and life. 3 cred.; prereq. sr. standing. Cary, Beck.
- H.Ed.182s. Comparative Philosophies of Education. An intensive examination of competing philosophies of education. 3 cred. Beck.
- H.Ed.241f,w,s.* Problems in the History and Philosophy of Education. For graduate students interested in research and original work in this area. Consult instructor. Cred. ar. Wesley, Cary, Beck, Alexander.
- H.Ed.242s. Seminar in Educational Philosophy. For advanced students in educational philosophy. This course involves the effort to relate current educational problems and issues to fundamental viewpoints

and issues in contemporary philosophy. Some consideration will be given to the historical backgrounds of current philosophical viewpoints. Bearings of these viewpoints on the meaning of democracy will be considered. The student will be expected to identify and defend his own educational philosophy in the process of this course. 3 cred. Cary, Beck.

HOME ECONOMICS EDUCATION

- H.E.Ed.90f,s. Child Training. A brief study of the physical and mental development of the child is followed by a discussion of the problems of training small children. Emphasis is placed on the preschool child. Lectures, observations in the Nursery School, and report. 3 cred.; soph., jr., sr.; prereq. Psy. 1-2. Peterson.
- H.E.Ed.91f,w,s. Observation, Materials, Teaching in Home Economics. A study of philosophy basic to the home economics program; students' needs and interests; books, bulletins and illustrative materials for instruction purposes; curriculum guides and unit construction; development of home economics in the school program. 5 cred.; jr., sr.; prereq. H.E. 4, 21, 22, Ed. 55A-B, home experience; parallel H.E.Ed.93. Rose, Ford, Kafka.
- H.E.Ed.92f,w,s. Teaching Problems in Home Economics. A study of teaching procedures; management of the homemaking department, space and equipment; relationship of teacher to a school, community, and the profession. 2 cred.; sr.; prereq. H.E.Ed. 91, 93; parallel with H.E.Ed. 94 and 192. Rose.
- H.E.Ed.93f,w,s-94f,w,s. Supervised Teaching in Home Economics. Observation, participation, and actual teaching experience under supervision in different home economics situations and on different age levels. In the second quarter the student spends a month in a selected school in the state. 9 cred.; jr., sr.; prereq. H.E. 4, 21, 22, 41, Ed. 55A-B; students must have completed home experience work in home economics. Rose and others.
- H.E.Ed.95f,w,s. Field Experience for Home Agents. Observation, participation, and actual experience under supervision in the agricultural extension program. This experience includes a study of the program on the St. Paul Campus and participation in a selected county program with a home demonstration agent. A written report summarizing the experience will be required. 6 cred.; cons. of the head of Home Economics Education and the director of Agricultural Extension is required for reg.; prereq. H.E.Ed. 91, 93. Rose and others.
- H.E.Ed.192f,w,s. Evaluation in Home Economics. Evaluation as a means of measuring progress toward important goals in different areas of home economics; study of available tests and other evaluation materials; construction and refinement of various evaluation instruments. Study of elementary statistical techniques useful to home economics teachers. 2 or 3 cred.; sr., grad.; prereq. Ed. 55A-B, H.E.Ed. 91. Army, Rose.
- H.E.Ed.193As. Home Economics Curriculum (secondary level). A study of the contribution of home economics at elementary and secondary levels; evaluation of curriculum practices and techniques employed in curriculum planning and reconstruction. 3 cred.; sr., grad.; prereq. H.E.Ed. 94 or cons. of instr. Ford.

- H.E.Ed.193Bw,s. Home Economics Curriculum (college level). The place of home economics in higher education; problems facing home economics in small colleges; curriculum offerings; teaching schedules and load; appropriate reference materials. 3 cred.; sr., grad.; prereq. cons. of instr. Ford.
- H.E.Ed.194Af,w,s. Adult Education in Home Economics. Objectives of adult education in homemaking; study of problems affecting community and family life; methods and techniques used in helping adults and out-of-school youth to solve problems in home living. Course is planned for teachers, extension workers, and other workers in adult education in homemaking. 3 cred.; sr., grad.; prereq. H.E.Ed. 91, 93. Ford.
- H.E.Ed.194Bf,w,s. Adult Education in Home Economics. Planning a community program; teaching procedures; special problems. Course is planned for teachers and supervisors of adult classes. 3 cred.; sr., grad.; prereq. H.E.Ed. 91, 93, 194A. Ford.
- H.E.Ed.195s. Space, Equipment, Furnishings and Materials for Home Economics Departments. A study of remodeling old and planning new departments, and equipping and furnishing them. Review of research studies. Investigation of special problems. This course is designed primarily for graduate students and adult specials, but will be open to *seniors* by permission of the instructor. 3 cred.; sr., grad.; prereq. H.E. 49, H.E.Ed. 91, 93. Rose, Kafka.
- H.E.Ed.197f,w,s. Organization and Methods of Related Art Teaching. A course which aims to develop a working philosophy of related art. Courses are planned and methods studied to relate art and home economics subject matter in various aspects of home and community life. Illustrative material is collected and evaluated. 1 to 3 cred.; sr.; prereq. H.E.Ed. 91, H.E. 180 or parallel or cons. of instr. Esteros.
- H.E.Ed.199E. Internship. Directed teaching and practice work at the graduate level for candidates for the master of education degree. Cons. of instr. Rose.
- H.E.Ed.243f,w,s. Trends in Home Economics. The place of home economics in the educational program today; the ways in which content and procedures are being modified to meet changing conditions. 3 cred.; cons. of instr. Rose.
- H.E.Ed.292s.* Problems in Evaluation. A continuation of Course 192, with emphasis upon individual problems in the field of evaluation. 3 cred.; cons. of instr. Army.
- H.E.Ed.293f,w,s.* Problems in Home Economics Education. Offers opportunity for graduate students to study current educational problems independently on the level of major interest—elementary, secondary, adult or higher education. Students should have had at least one quarter of graduate work and if possible H.E.Ed. 294, Research Problems. Consult instructor before registering. Individual conferences arranged. 1-9 cred. Army, Rose, Ford, Esteros.
- H.E.Ed.294f,w,s.* Research Methods. Study of methods used in collecting data dealing with various types of educational problems, tabulation, organization, appropriate statistical treatment, and interpretation of data. Independent study of a special problem and writing a report of the investigation are required. 3 cred. Cons. of instr. Army, Rose.
- H.E.Ed.295f,w,s.* Seminar in Home Economics Education. Offers opportunity for group discussion and reports on current problems at the various educational levels. 1 cred. per qtr. Army, Rose.

INDUSTRIAL EDUCATION

The manipulative and classroom courses here listed are offered under requirement or election as indicated in the Four-Year Curriculum. Other courses of laboratory nature, in great number and variety, are offered in other colleges, divisions and departments of the University. Students may arrange to take shopwork, drawing and related courses, day or evening, academic year or summer, at the William Hood Dunwoody Industrial Institute, without fees other than those paid at the University.

A maximum of 48 credits in shopwork and drawing is strictly enforced. This fact should be noted particularly by those who transfer to this curriculum from other university departments or from other institutions. Credits in excess of 48 may be recorded but they will not be counted toward the graduation requirement. Advanced students may pursue manipulative courses but credits so earned will not be considered parts of the programs for graduate degrees.

- Ind.1f. Basic Woodwork. An introduction to woodwork with emphasis on the use of common hand tools. 3 cred. Nelson.
- Ind.2w. Machine Woodwork. Instruction and manipulative experience, including maintenance of the common woodworking machines. 3 cred.; prereq. Ind. 1 or equiv. Nelson.
- Ind.3s. Shop Finishing. A study and application of the materials and processes used in the finishing of woods, metals and other media. 3 cred.; prereq. Ind. 1-2 or equiv. Nelson.
- Ind.5f. Basic Drawing. An introduction to drawing as an area of industrial arts. Fundamental skills in sketching, lettering, use of instruments, orthographic projection, and pictorial representation. 3 cred. Ar.
- Ind.6w. Applied General Drawing. Orthographic projection, pictorial representation, sheetmetal developments and blueprint reading. 3 cred.; prereq. Ind. 5 or equiv. Ar.
- Ind.7s. Building Construction Drawing. Application of the theory of orthographic projection and pictorial representation to building construction. 3 cred.; prereq. Ind. 5-6 or equiv. Ar.
- Ind.10f. Basic Electricity. An introduction to electricity as an area of industrial arts; covers theories, fundamental skills, processes, projects, and jobs. 3 cred. Nelson.
- Ind.11f,w,s. Special Class Woodwork. For teachers of art, primary and elementary work, exceptional classes, etc.; lectures, demonstrations, and shop practice. 2 cred. LaBerge.
- Ind.12w. Electricity and Radio. Continues Ind. 10 to further applications of electricity and radio appropriate in industrial arts; emphasis in radio on theories, fundamental skills, analysis of circuits and practical jobs. 3 cred.; prereq. Ind. 10. Ar.
- Ind.15w. Basic Graphic Arts. An introduction to the graphic arts through five fundamental units—typesetting and presswork, stencil processes, linoleum engraving, photography, and general duplicating. 3 cred. Nelson.
- Ind.16s. Advanced Graphic Arts. Stresses the letter press processes toward the preparation of artistic products; includes study of color, mixing of inks and selection of stock; provides experience in etching, engraving, book binding and silk screen. 3 cred.; prereq. Ind. 15. Nelson.

- Ind.20f. Craft Work—A. Manipulative experiences with a number of media suitable for industrial arts courses, clubs and activities; art metal, leather, plastics, etc. 3 cred.; prereq. cons. of instr. Nelson.
- Ind.21w. Craft Work—B. Covers the fabrication, decoration and finishing of clay; cutting, grinding and polishing of semiprecious gems, and work in silver. 3 cred.; prereq. Ind. 20. Nelson.
- Ind.25. Machine Shop. An introduction to machine tool operations; performance, application of processes and solution of related problems. 3 cred. Not offered 1950-51.
- Ind.26. Advanced Machine Shop. Continues Ind. 25 with emphasis on fundamental skills, machine set-ups, tool grinding, shop theory and practice. 3 cred. Not offered 1950-51.
- Ind.40f. Analysis. Necessity for, and types of, instructional analysis; individual work upon selected fields, for course construction purposes. 2 cred. Micheels.
- Ind.42w. Course Organization. Development of techniques for selection and arrangement of instructional materials; both general and vocational classes and groups are considered. 3 cred.; prereq. Ind. 40. Micheels.
- Ind.44s. Equipment and Management. Sources, purchases, costs, and inventories; installation, upkeep, and safe operation; storage and issue of tools and supplies; financial accounts, bills of material, and disposal of products. 3 cred.; prereq. Ind. 40-42. Widdowson.
- Ind.50Af-Bw-Cs. Student Teaching. Three quarters or nine credits required. 3 cred. per qtr.; prereq. Ed. 55B, Ind. 70 or 100, 80, 1.5 H.P.R.; cons. of instr. Anderson.
- Ind.60f. Philosophy of Vocational Education. Development and characteristics of vocational training; conservation of human and material resources; social and economic significance; results and weaknesses; current theories. 2 cred. Widdowson.
- Ind.61w. Practices in Vocational Education. Plans of organization and control; types of schools and classes; state and federal aid; teacher preparation and certification. 2 cred.; prereq. Ind. 60. Widdowson.
- Ind.66. Related Subjects. Theories, practices, and problems of related instruction; special reference to mathematics, drawing, science, safety, and other auxiliary and technical information. 2 cred.; prereq. Ind. 40-42. Not offered in 1950-51.
- Ind.70s. Teaching of Industrial Subjects. Conduct of shop classes; plans, demonstrations, drill, grading, reports, and records. General techniques of method particularized for school shop situations. 3 cred.; prereq. Ed. 55B; Ind. 42. Micheels.
- Ind.80f. Introduction to Industrial Arts. Orientation to the teaching of industrial arts; overview of origins, aims, offerings, techniques, schedules, equipments. 2 cred. Nelson.
- Ind.100w. Industrial Instruction. Concepts and techniques of instruction in three phases of industrial teaching—industrial arts, trade and industrial schools and classes, and training-within-industry programs. 3 cred.; jr., sr., grad.; prereq. Ed. 55B, Ind. 42; not open to those with cred. in Ind. 70. Smith.
- Ind.101s. Tests in Industrial Subjects. Study and application of principles of evaluation with particular reference to shop and drawing subjects. 3 cred.; jr., sr., grad.; prereq. Ed. 55B. Micheels.

- Ind.102w. The General Shop. (Not a shop course.) Purpose of general shop spaces and organization; current practice as to types of shops, equipment, instructional materials and procedures, pupil personnel plans. 2 cred.; jr., sr., grad.; prereq. Ind. 80. Nelson.
- Ind.103w. Instructional Aids. Consideration of various instructional aids; planning, constructing, using. 3 cred.; jr., sr., grad.; prereq. Ind. 70 or equiv. Micheels.
- Ind.105s. Administration of Industrial Education. For majors and non-majors; general and vocational phases considered; objectives, programs and practices; laws, rulings, and standards for aid; significant literature. 3 cred.; jr., sr., grad.; prereq. Ind. 61, 80, cons. of instr. Smith.
- Ind.107w. Coordination. Province and duties of coordinators in trade schools, part-time programs, and cosmopolitan high schools offering training opportunities. 3 cred.; jr., sr., grad.; prereq. Ind. 60, 61, or 125 or cons. of instr. Widdowson.
- Ind.108. Apprenticeship. History and recent development of apprenticeship in the United States; trends, practices, organization, laws, and rulings; state plans for vocational education in their varying relationship to apprenticeship. 2 cred.; prereq. cons. of instr. Not offered in 1950-51.
- Ind.109f. Conference Leading for Industry. Purposes, advantages, limitations, and types of conference method. Characteristics of conference situations and of good leadership. Initial planning, sequential steps, techniques and devices, problems and tensions, summaries. Evaluation of group and individual attainment. Writing of reports. Practice sessions and criticisms. 3 cred.; prereq. cons. of instr. Widdowson.
- Ind.110f. Vocational Guidance. History of the educational and vocational guidance movement; typical public school means and methods; types and uses of occupational information; duties of the counselor; organization and relationships; emphasis upon vocational phases. 3 cred.; jr., sr., grad.; prereq. Ed. 55B. Smith.
- Ind.115s. Supervision of Industrial Education. Principles of creative supervision applied in industrial teaching; analysis of duties, organization for supervision; functional analysis of modern concepts of industrial education. 3 cred.; prereq. Ind. 60, 80, or 105. Micheels.
- Ind.125s. Philosophy and Practice of Industrial Education. History, objectives, development, and current practices of the field. Industrial arts as general education and school preparation and upgrading for trade pursuits. 3 cred.; jr., sr., grad.; not open to those with cred. in Ind. 60-61. Smith.
- Ind.135f. Industrial Course Construction. Principles and techniques of course construction and unit development; experience in planning, organizing and building a course of study. 3 cred.; jr., sr., grad.; not open to those with cred. in Ind. 40-42. Micheels.
- Ind.172s. Part-time Education. Covers justification of part-time education; social and economic background; organization of classes; study of special student groups; courses of study; typical schools, comparative state legislation and plans; federal and state reimbursement. 3 cred.; prereq. Ind. 170-171 or equiv.; cons of instr. Smith.
- Ind.200f,w,s.* Research Problems. Independent work for the degrees, master of arts, Plan B, and master of education, Plan Y. 3, 6, or 9 cred. per qtr. Individual conf. Smith, Micheels.

- Ind.250f-251w. Literature of Industrial Education. Acquaintance with texts, references, and reports; critical analysis; selection of problems; formulation of work plans; reports of progress; organization and presentation. 3 cred. per qtr.; cons. of instr. Smith.
- Dunwoody f,w,s. Shopwork; Drawing. Cred. ar. Smith.
- Off-Campus Courses, Services f,w,s. Cred. ar. Widdowson.

LIBRARY SCIENCE

- Lib.Sci.50f. Libraries and Society. History of libraries; types of libraries, library agencies, and services; libraries in the modern world; librarianship as a profession. 3 cred. Shove.
- Lib.Sci.60f. Sources of Information about Library Materials. Reviewing media, "best" lists, trade bibliographies, etc. Principles of book selection and order work. 3 cred. Hayner.
- Lib.Sci.61f,w,s. Library Practice. Practice, under supervision, in Minneapolis and St. Paul libraries. The time and character of the practice will be individually arranged to suit student aptitudes and needs, usually in the second and third quarters. 3 cred. Shove, Hayner. Prereq. 18 cred. in library science or satisfactory library experience.
- Lib.Sci.62f. Reference I. General reference tools and other sources of information in reference work; theory and practice of reference work. 2 cred. Russell.
- Lib.Sci.63w. Reference II. Reference work in subject fields; the reference department; practical bibliography. 3 cred.; prereq. Lib.Sci. 62. Shove.
- Lib.Sci.70f. Reading Guidance. The library user, his personality and background; the matching of book and user and the improvement of reading habits. 3 cred. Hayner.
- Lib.Sci.74w. Library Materials in the School's Instructional Program. How to locate library materials. Sources of information about books and other teaching materials. Methods of cooperation between teachers and librarians. 2 cred. Hayner.
- Lib.Sci.76s. Library Service in Hospitals. Organization and technical methods suitable for hospital libraries. 3 cred. Ar.
- Lib.Sci.77s. Book Selection for Hospital Patients. Criticism and discussion of reading suitable for varied types of patients. 3 cred. Ar.
- Lib.Sci.79s. Medical Reference Work. Reference books and technical methods for hospital staffs. 3 cred. Kingsley.
- Lib.Sci.80s. Hospital Library Practice. A six-week internship in approved hospitals. 4 cred.; prereq. Lib.Sci. 76, 77, 79. Ar.
- Lib.Sci.81f. Theory of Bibliography. Introduction to the description and arrangement of books in catalogs, bibliographies, and on library shelves. 2 cred. Simonton.
- Lib.Sci.82w. Cataloging and Classification. Methods of dictionary card cataloging and shelf classification, especially for small libraries; Sears' Subject Headings and Dewey's Decimal Classification. 4 cred. Hayner.
- Lib.Sci.84s. Subject Cataloging and Classification. History of book classification and the classification of knowledge; comparison of modern subject schemes; the Library of Congress classification and subject headings. 3 cred.; prereq. Lib.Sci. 81, 82. Simonton.
- Lib.Sci.85w,s. Special Problems. Individual study on library problems for advanced students in library science. 1-3 cred.; prereq. approval of director, Division of Library Instruction. McDiarmid, Shove, Hayner.

- Lib.Sci.151f. Invention and Spread of Printing. History of the development of printing and its spread to the end of the 16th century. 2 cred. Shove.
- Lib.Sci.152w. History of Printing to Modern Times. The development and spread of printing and the publishing industry, 1600-1900. 2 cred. Shove.
- Lib.Sci.153s. Principles of School Library Organization and Management. Administration of the school library as a part of the general community educational program. 3-4 cred.; prereq. cons. of instr. Hayner.
- Lib.Sci.154s. Principles of Public Library Administration. The application of theories and principles of administration to the problems of the public library. 3 cred.; prereq. cons. of instr. Methven.
- Lib.Sci.155s. Administrative Problems in the College and University Library. Educational functions of the college and university library and administrative organization to perform these functions. 3 cred.; prereq. cons. of instr. Shove.
- Lib.Sci.164s. Reference III. Specialized reference tools; government publications; administration of the reference department; special problems in large libraries. 2 cred.; prereq. Lib.Sci. 62, 63. Ar.
- Lib.Sci.165w. Advanced Bibliography. Specialized trade and national bibliographies, domestic and foreign. 2 cred. Shove.
- Lib.Sci.171s. Principles and Problems in Reading Guidance for Children. Factors affecting the reading interests and needs of children, and principles of guidance in children's literature. 3 cred.; prereq. Lib. Sci. 70. Shove.
- Lib.Sci.172s. Principles and Problems in Reading Guidance for Adolescents. The reading interests and needs of the adolescent and guidance in the use of library material for adolescent needs. 3 cred.; prereq. Lib.Sci. 70. Hayner.
- Lib.Sci.173w. Principles and Problems in Adult Reading Guidance. Adult reading interests and factors affecting adult use of library material. 3 cred.; prereq. Lib.Sci. 70. Ar.
- Lib.Sci.255f-256w-257s. Seminar in Library Administration. 9 cred. McDiarmid, Stanford.
- Lib.Sci.260f-261w-262s. Seminar in Advanced Bibliography. 9 cred. Shove, Russell.
- Lib.Sci.271f-272w-273s. Seminar in Library Work with Children and Young People. Individual problems and research in library service to children and young people. 9 cred. Hayner.
- Lib.Sci.274f-275w-276s. Seminar in Reading Guidance. Advanced problems in reading interests and reading guidance. 9 cred. Ar.

METHODS AND STUDENT TEACHING

Admission to methods and student teaching. The approval of the director of student teaching is required for registration in all courses involving student teaching and special methods. Continuance in the courses is dependent upon satisfactory work each quarter in both the student teaching and the methods courses. A grade average of C+ (1.5 honor points per credit) in the major or the subject in which student teaching is done, is required for registration in all special methods and student teaching courses except those in elementary education, where a C average is required. For description of the requirements and procedures

for admission to student teaching see pages 10 and 19. For Clinical Methods and Practice in Speech Pathology see Ed.C.I. 174-175-176. For methods and student teaching in special subjects see the department concerned.

Nursing Education

Ed.T.51Af,w,Bf,w,s. The Teaching of Nursing. Principles underlying clinical and classroom teaching in schools of nursing. Planning and evaluation of instruction. Observation and study of principles of teaching applied in the nursing school situation. Supervised practice in teaching of nursing subjects. 10 cred.; prereq. Ed. 55B. Ar.

Recreation Leadership

Ed.T.84Af-Bw-Cs. Practice and Field Work in Recreation Leadership. To be taken during the junior year. 2 cred.; prereq. cons. of instr. Giles.

Ed.T.85Af-Bw-Cs. Practice and Field Work in Recreation Leadership. Opportunity for observation of the practice in leadership of recreation activities. Students will be assisted in planning individual programs based on previous experience and professional needs. 1 or 2 cred.; prereq. cons. of instr. Giles.

School Health Education

Ed.T.83w. Methods and Materials of School Health Education. Study of principles, materials, and problems of health education in preparation for health teaching. Observation in techniques of school health instruction. Allocation and gradation of health subject matter, study of health needs of school children. Evaluation of school health instruction. 3 cred.; prereq. P.H. 59. Ericson.

Elementary Education

Ed.T.53Af,w-Bw,s.† The Teaching of Handicapped Children. Students will have opportunity to observe work with the special classes, and to teach under direction. Conducted in cooperation with the public schools of Minneapolis and St. Paul. 5 cred. per qtr., total 10 cred.; prereq. cons. of instr. Delp.

Ed.T.54Af,w,s-Bw,s.† Student Teaching in the Elementary School. Five half-days a week spent in classroom participation and teaching under supervision in the elementary school. 5 cred. per qtr., total 10 cred. Ar.

Ed.T.55f. Principles of Early Childhood Education. The development, aims, and organization of kindergarten and nursery school education. A consideration of the curriculum and methods. 3 cred.; prereq. C.W. 80 or concurrent reg. Fuller.

Ed.T.56f. Methods and Observation in Nursery School and Kindergarten. Directed observation in the nursery school and kindergarten. Emphasis upon observations of the young child in the school setting, program planning, techniques of management, record keeping, care and use of materials. 5 cred.; prereq. Ed.T. 55 or concurrent reg. Headley, Peterson.

- Ed.T.57w. Nursery School-Kindergarten Laboratory in Art, Literature, and Social Studies. Lectures and laboratory periods emphasizing methods and materials for children 2 to 6. Books, story telling social studies, and art are considered in their relation to the nursery school and kindergarten program and the home life of the child. 5 cred.; prereq. Ed.T. 56. Headley.
- Ed.T.58s. Nursery School-Kindergarten Laboratory in Play Materials, Music, and Science. Lectures, laboratory periods, and excursions emphasizing methods and materials for children 2 to 6. Permanent and plastic play materials, music, and science in their relation to the nursery school and kindergarten program and the home life of the child. 5 cred.; prereq. Ed.T. 57. Peterson.
- Ed.T.76f. The Teacher and the Parent. Relations between parent and teacher. Interviews, informal and formal parent education methods. Parent-teacher work. Lectures, observations, practice in interviewing and in preparing programs. Reports. 3 cred.; prereq. 55, 56, 57, 58. Cummings.
- Ed.T.77f,w,s. Student Teaching in the Nursery School. Five half-days each week spent in classroom participation under supervision. 4 cred.; prereq. approval of major adviser and director of student teaching. Fuller.
- Ed.T.78f,w,s. Student Teaching in the Kindergarten. Five half-days spent in classroom participation under supervision in public or private schools. 4 cred.; prereq. approval of major adviser and director of student teaching. Fuller.
- Ed.T.79f,w,s. Student Teaching in the Primary Grades. Five half-days each week spent in classroom participation under supervision in public or private schools. 4 cred.; prereq. approval of major adviser and director of student teaching. Fuller.

Secondary Education

- Ed.T.52f,w,s. Student Teaching. Teaching under supervision in the University High School and in public high schools. The course calls for one to five periods in the school where work is assigned. Registration in this course is limited to those students who have completed special methods courses or have had teaching experience. Student teaching in academic subjects is *normally* combined with special methods courses in a one-year teachers' course beginning in the fall quarter. Arrangements must be made with the director of student teaching. Cred. ar. Grim.
- Ed.T.61. Teachers' Course in Norwegian. Not offered.
- Ed.T.62.† Teachers' Course in Swedish. Not offered.
- Ed.T.67f-w-s.† Student Teaching in Mathematics. Concurrent registration is required in Ed.T. 67A-B-C throughout the senior year. Successful completion of the work each quarter in both Ed.T. 67A-B-C and in Ed.T. 67 is necessary for continuation in the courses. Students can be admitted only in the fall. 2 cred. per qtr., total 6 cred. Ar.
- Ed.T.67Af-Bw-Cs.† The Teaching of Secondary School Mathematics. A methods course. Discussion of procedures in selecting and organizing materials and in teaching secondary school mathematics. Courses must be taken in sequence throughout the senior year. 3 cred. fall, 1 cred. winter, 1 cred. spring, total 5 cred. D. Johnson.

- Ed.T.67Af. The Teaching of Secondary School Mathematics. 3 cred.; minors only. D. Johnson.
- Ed.T.68f-w-s.† Student Teaching in Natural Science. Concurrent registration is required in Ed.T. 68A-B-C throughout the senior year. Successful completion of the work each quarter in both Ed.T. 68A-B-C and Ed.T. 68 is necessary for continuation in the courses. Students can be admitted only in the fall. 2 cred. per qtr., total 6 cred. Ar.
- Ed.T.68Af-Bw-Cs.† The Teaching of Secondary School Science. A methods course. Discussion of procedures in selecting and organizing materials and in teaching secondary school science. Courses must be taken in sequence throughout the senior year. 3 cred. fall, 1 cred. winter, 1 cred. spring, total 5 cred. Boeck.
- Ed.T.68Ms. The Teaching of Secondary School Science. 3 cred.; minors only. Boeck.
- Ed.T.69f-w-s.† Student Teaching in the Social Studies. Concurrent registration is required in Ed.T. 69A-B-C throughout the senior year. Successful completion of the work each quarter in both Ed.T. 69A-B-C and Ed.T. 69 is necessary for continuance in the courses. Students can be admitted only in the fall. 2 cred. per qtr., total 6 cred. Ar.
- Ed.T.69Af-Bw-Cs.† The Teaching of the Social Studies in the Secondary School. A methods course. Discussion of procedures in selecting and organizing materials and in teaching the social studies in the secondary school. Courses must be taken in sequence throughout the senior year. 3 cred. fall, 1 cred. winter, 1 cred. spring, total 5 cred. Wesley.
- Ed.T.69Ms. The Teaching of the Social Studies in the Secondary School. 3 cred.; minors only. West.
- Ed.T.70f-w-s.† Student Teaching of the Modern Languages. Concurrent registration is required in Ed.T. 70A-B-C throughout the senior year. Successful completion of the work each quarter in both Ed.T. 70A-B-C and Ed.T. 70 is necessary for continuance in the courses. Students can be admitted only in the fall. 2 cred. per qtr., total 6 cred. Ar.
- Ed.T.70Af-Bw-Cs.† The Teaching of the Modern Languages. A methods course. Discussion of procedures in selecting and organizing materials and in teaching the modern languages. Courses must be taken in sequence throughout the senior year. 3 cred. fall, 1 cred. winter, 1 cred. spring, total 5 cred. Birkmaier.
- Ed.T.70Af. The Teaching of the Modern Languages. 3 cred.; minors only. Birkmaier.
- Ed.T.71f-w-s.† Student Teaching in Latin. Concurrent registration is required in Ed.T. 71A-B-C throughout the senior year. Successful completion of the work each quarter in both Ed.T. 71A-B-C and Ed.T. 71 is necessary for continuation in the courses. Students can be admitted only in the fall. 2 cred. per qtr., total 6 cred. Ar.
- Ed.T.71Af-Bw-Cs.† The Teaching of Latin. A methods course. Discussion of procedures in selecting and organizing materials and in teaching Latin. Courses must be taken in sequence throughout the senior year. 3 cred. fall, 1 cred. winter, 1 cred. spring, total 5 cred. Birkmaier.
- Ed.T.71Af. The Teaching of Latin. 3 cred; minors only. Birkmaier.
- Ed.T.72Af-Bw-Cs.† Student Teaching in Distributive Education Subjects. A one-year course required of all students majoring in distributive education. 2 cred. per qtr., total 6 cred.; prereq. Ed. 55B and cons. of instr. Meyer.

- Ed.T.73Af-Bw-Cs.† Student Teaching in Business Subjects. A one-year course required of all students majoring in business education. 2 cred. per qtr., total 6 cred.; prereq. Ed. 55B and cons. of instr. Price.
- Ed.T.74w. The Teaching of Journalism. A study of methods and techniques of presenting journalism to students of less than college level. Required of all students with a minor in journalism. 3 cred.; prereq. Jour. 41 or 51 and Ed. 55B, or cons. of instr. Kildow.
- Ed.T.75f-w-s.† Student Teaching in the Language Arts. Concurrent registration is required in Ed.T. 75A-B-C throughout the senior year. Successful completion of the work each quarter in both Ed.T. 75A-B-C and Ed.T. 75 is necessary for continuation in the courses. Students can be admitted only in the fall. 2 cred. per qtr., total 6 cred. Ar.
- Ed.T.75Af-Bw-Cs.† The Teaching of the Language Arts. A one-year course combining the problems of teaching speech and English. Required of all majors in speech, English, or the language arts. Includes consideration of the objectives of teaching, the selection of content, the principles of effective expression, theories of usage, standards of appreciation of literature, organization and development of units, principles of guiding personal reading, effective use of mass modes of communication, and principles of mastering the skills of speech, writing, and reading. Supervision of school papers, production of plays, declamation, and debating. Courses must be taken in sequence throughout the senior year. 3 cred. fall, 1 cred. winter, 1 cred. spring, total 5 cred. D. V. Smith.
- Ed.T.75Af. The Teaching of the Language Arts. 3 cred.; minors only. D. V. Smith.
- Ed.T.75M. The Teaching of the Language Arts. 3 cred.; minors only. Offered only in the first term of Summer Session.
- Ed.T.80s. The Teaching of Typewriting. Survey of general methods and techniques in teaching typewriting. Demonstration lessons taught by members of the class. 2 cred.; prereq. Ed. 55B or concurrent reg. Price.
- Ed.T.81w. The Teaching of Shorthand. An examination and evaluation of various methods of teaching shorthand. Application of psychological principles to teaching. Opportunity for demonstration lessons. 2 cred.; prereq. Ed. 55B or concurrent reg. Price.
- Ed.T.82f. The Teaching of Bookkeeping and General Business Subjects. Developments in content and method in teaching bookkeeping and general business subjects in the junior and senior high school. Preparation of units of instruction. 2 cred.; prereq. Ed. 55B or concurrent reg. Price.
- Ed.T.90Af-Bw-Cs.† The Teaching of Distributive Education Subjects. A one-year course in methods of teaching distributive education subjects in high schools and junior colleges with emphasis on individual instruction and correlation of classroom work with on-the-job experience. 2 cred. per qtr.; prereq. cons. of instr. Meyer.

MUSIC EDUCATION

Note—For description of courses in music and statement of fees, see *Bulletin of the College of Science, Literature, and the Arts*.

Mu.Ed.4f-5w-6s. Applied Instrumental Technique. This laboratory course is divided into three quarters, strings, brass (and percussion), and

- woodwinds, respectively. It incorporates the theory and technical development of the instruments, and elementary instruction in the playing of the chosen vehicle of expression, with special attention to the routine of class instruction. 2 cred. per qtr.; prereq. mu.ed. major. Ivory, Prescott.
- Mu.Ed.50Af,w. Teaching Music in the Primary Grades. Practical methods for teaching music in the nursery school, kindergarten, and grades one, two, and three. Particular attention is given to the child voice; its care and development; rote singing, the transition from rote singing to note reading; new practices and materials. Observation in Minneapolis and St. Paul schools. 2 cred.; prereq. 1. Winslow.
- Mu.Ed.50Bw. Teaching Music in the Intermediate Grades. Music methods to be used in grades four, five, and six; rhythmic and melodic problems; voice testing, two- and three-part singing; integration. Observation in Minneapolis and St. Paul schools. 2 cred.; prereq. 50A. Winslow.
- Mu.Ed.53s. High School Methods. Organization and methods of teaching chorus, glee clubs, and voice classes; appreciation and theoretical music as encountered in the modern junior and senior high school. Particular attention to the changing voice, various voice combinations, procedures, and materials for public appearances. 3 cred.; prereq. 50B, Ed. 55B. Winslow.
- Mu.Ed.59w.† Choral Literature and Conducting. A laboratory class for intimate contact with vocal materials and actual practice in conducting. The following approaches are used: the class reads much material for contact with evaluation, the music education seniors will rehearse and direct the class, conducting problems will be presented and discussed from the student's as well as the teacher's point of view. 2 cred. for sr.; others 1 cred. Winslow.
- Mu.Ed.60-61-62f,w,s. Supervision and Teaching of Music. Practical phases of school music teaching. Actual experience in carrying forward, under supervision, the activities of the elementary music teacher as well as all types of vocal and instrumental activities in the junior and senior high school. Work done in Minneapolis and St. Paul schools and University High School. Special attention given to organization of materials, methods of procedure, lesson planning, and recent approaches. 9 cred.; prereq. sr., 50B, 53, Ed. 55B, cons. of instr. Winslow.
- Mu.Ed.63w. Band Conducting. A course designed to give practical experience in conducting recommended band literature of all grades. 2 cred.; prereq. 4-5-6. Prescott.
- Mu.Ed.64s. Band Organization. A course dealing with the organization, promotion, curriculum, administration, equipment, and other problems of the school band. 3 cred.; prereq. 4-5-6, cons. of instr. Prescott.
- Mu.Ed.65f,w. Instrumentation. This course involves a theoretical study of orchestral and band instruments, in combination. The physics of tone color is explained. Revision of materials suitable for school use, and discussion of capacity and capability of school performance on the various instruments are undertaken. 3 cred.; prereq. sr., Mu. 6T. Ivory.
- Mu.Ed.67w. The Teaching of Instrumental Music in the Elementary School, Grades 1 through 8. 2 cred.; prereq. cons. of instr. Ivory.

† Four credits are required in Mu.Ed. 59. The course should be repeated until all four credits are earned.

- Mu.Ed.68s. The Teaching of Instrumental Music in Secondary Schools. Training of directors of orchestra and band ensembles, and a critical survey of available music materials adaptable to school music purposes. Laboratory practice in the technique of the baton in interpreting worthy instrumental compositions, developing appreciation of better literature. Program planning and efficient management of rehearsals. 2 cred.; prereq. sr., Mu.Ed. 65. Ivory.
- Mu.Ed.103Ef. Psychological Foundations of Music Education. 3 cred.; prereq. sr., cons. of instr. Winslow.
- Mu.Ed.104Es. Advanced Topics in Vocal Music Education. Designed for experienced teachers and qualified students, this course deals with special topics in vocal and choral music education. 3 cred.; prereq. sr., cons. of instr. Winslow.
- Mu.Ed.105Ew. Advanced Topics in Instrumental Music Education. Designed for experienced teachers and qualified students, this course deals with special topics in instrumental music education. 3 cred.; prereq. sr., cons. of instr. Ivory.
- Mu.Ed.224Ef,w,s. Seminar and Individual Research Problems in Music Education. A knowledge of elementary statistics is required. Individual projects; guidance; remedial procedures; interrelationships. 2-6 cred. Winslow.
- Mu.Ed.225Ef,w,s. Advanced Applied Music. 2-4 cred. Ar.

NURSING EDUCATION

- Nurs.Ed.29Aw,Bs. Advanced Psychiatric Nursing. A course providing for guided study of principles, techniques, and problems of psychiatric nursing. Doctors' and nurses' lectures, conferences, seminars, demonstrations, clinics, and ward classes supplemented by correlated clinical assignments. Emphasis is given scientific principles, social and economic implications and community programs for promotion of mental health and for disease control as related to highest quality of patient care. Clinical assignments include experience in bedside patient care, in special diagnostic and therapeutic techniques, and in community agency activities. Individual student interests, needs, and abilities are recognized in planning content of the course. 12 cred.; prereq. Nurs.Ed. 66. Lediger.
- Nurs.Ed.33Aw,Bs. Advanced Medical Nursing. A course providing for guided study of principles, techniques, and problems of medical nursing. Doctors' and nurses' lectures, conferences, seminars, demonstrations, clinics, and ward classes supplemented by correlated clinical assignments. Emphasis is given scientific principles, social and economic implications and community programs for disease control as related to highest quality of patient care. Clinical assignments include experience in bedside patient care, in special diagnostic and therapeutic techniques, and in community agency activities. Individual student interests, needs, and abilities are recognized in planning content of the course. 12 cred.; prereq. Nurs.Ed. 66. Coe.
- Nurs.Ed.34Aw,Bs. Advanced Obstetric Nursing. A course providing for guided study of principles, techniques, and problems of obstetric nursing. Doctors' and nurses' lectures, conferences, seminars, demonstrations, clinics, and ward classes supplemented by correlated clinical assignments. Emphasis is given scientific principles, social and economic implications and community programs for disease control as related to highest quality of patient care. Clinical assignments in-

- clude experience in bedside patient care, in special diagnostic and therapeutic techniques, and in community agency activities. Individual student interests, needs, and abilities are recognized in planning content of the course. 12 cred.; prereq. Nurs.Ed. 66. Kendall.
- Nurs.Ed.37Aw,Bs. Advanced Pediatric and Communicable Disease Nursing. A course providing for guided study of principles, techniques, and problems of pediatric and communicable disease nursing. Doctors' and nurses' lectures, conferences, seminars, demonstrations, clinics, and ward classes supplemented by correlated clinical assignments. Emphasis is given scientific principles, social and economic implications and community programs for disease control as related to highest quality of patient care. Clinical assignments include experience in bedside patient care, in special diagnostic and therapeutic techniques, and in community agency activities. Individual student interests, needs, and abilities are recognized in planning content of the course. 12 cred.; prereq. Nurs.Ed. 66. Mooney.
- Nurs.Ed.40Aw,Bs. Advanced Operating Room Nursing. A course providing for guided study of principles, techniques, and problems of operating room nursing. Lectures, demonstrations, conferences, classes, readings and experience. 40A: experience designed to form a background of general knowledge in nursing related to all types of operative procedures; 40B: experience designed to provide an opportunity to acquire more detailed knowledge and some degree of skill in nursing related to operative procedures. 12 cred.; prereq. Nurs.Ed. 66. Hinman.
- Nurs.Ed.46Aw,Bs. Advanced Course in Rural Nursing. Organized instruction and clinical experience in rural hospital nursing including: deliveries, care of the newborn, obstetric anesthesia, operating room experience, and participation in the local school health program. 24 cred.; prereq. Nurs.Ed. 66. Low.
- Nurs.Ed.47Aw,Bs. Advanced Tuberculosis Nursing. Nurses' and doctors' lectures, conferences, and ward classes supplemented by correlated clinical assignments. Emphasis is given scientific principles, social and economic implications, and community programs for disease control as related to highest quality of patient care. Clinical assignments include experience in bedside patient care, in special diagnostic and therapeutic techniques, and in community agency activities. 47B includes study of rehabilitation, occupational therapy, education of patients and family, orientation of personnel to job, collapse therapy, etc. Individual student interests, needs, and abilities are recognized in planning the course content. 21 cred.; prereq. Nurs.Ed. 66. Einerson.
- Nurs.Ed.52Aw,Bs. Advanced Surgical Nursing. A course providing for guided study of principles, techniques, and problems of surgical nursing. Doctors' and nurses' lectures, conferences, seminars, demonstrations, clinics, and ward classes supplemented by correlated clinical assignments. Emphasis is given scientific principles, social and economic implications and community programs for disease control as related to highest quality of patient care. Clinical assignments include experience in bedside patient care, in special diagnostic and therapeutic techniques, and in community agency activities. Individual student interests, needs, and abilities are recognized in planning content of the course. 12 cred.; prereq. Nurs.Ed. 66. Hanson.
- Nurs.Ed.55f. Operative Aseptic Technique. A course dealing with the type of organization and the personnel of the operating room; the care and use of equipment; antiseptics and methods of sterilization;

special and routine procedures; and problems of coordination with other hospital departments. Taught by lectures, demonstrations, discussions, and field trips. 1 cred.; prereq. Nurs.Ed. 66 or concurrent reg. Hinman.

Nurs.Ed.56s. Operating Room Administration. A course dealing with the administration and management of an operating room. Taught by lecture, discussion, and field trips. 2 cred.; prereq. Nurs.Ed. 66. Hinman.

Nurs.Ed.57Aw,Bs. Field Practice in Psychiatric Nursing. Nurses' and doctors' lectures, conferences, and seminars supplemented by special studies, projects, and clinical assignments. Instruction in the use of special therapies such as shock therapy, hydrotherapy, occupational and recreational therapies; observation of brain surgery and psychotherapy; discussion of such topics as psychometrics and psychology of food and feedings. Nurs.Ed. 57B includes supervised ward teaching. Total hours, approximately 44 hours weekly including classes. 22 cred.; limited to students enrolled in certificate curriculum in psychiatric nursing. Lediger and staff.

Nurs.Ed.59w. Principles of Psychiatric Nursing. Lectures, discussions, conferences, clinics on all types of psychoses with etiology, management, care, and treatment. Introduction to psychiatric literature. Review of mental hygiene. 5 cred. Lediger.

Nurs.Ed.60f,w,s. Ward Administration. The organization of the hospital; principles of administration and their application to ward management; analysis and maintenance of nursing service; selection, orientation, assignments, and motivation of personnel; planning and conducting clinical teaching programs. Place of the hospital in a community health program. 5 cred. Grainger.

Nurs.Ed.61Aw,Bs. Advanced Pediatric Nursing. Lectures, conferences, seminars, demonstrations, and clinics supplemented by correlated clinical assignments. Clinical assignments include experience in infant and child observation and care, in community agency activities, and in care of the sick infant and child. 61A: a course providing for guided study of principles, techniques, and problems in the care of normal children including acquaintance with community facilities and programs for better parenthood and child care. 61B: study of the special needs and problems of the sick infant and child. 12 cred.; prereq. Nurs.Ed. 66. Mooney.

Nurs.Ed.63f. Motion Study. A course designed to apply the science of motion study to the technique of nursing. The student is taught to analyze critically the present methods used in nursing, and to devise better ways of doing the job. Motion picture method of analysis, lectures, and laboratory work. 2 cred. Ar.

Nurs.Ed.65f,s. Analysis of Nursing Care. Studies of nursing practice. Each student works on an individual problem with the view to designing an improved nursing procedure. 4 cred. Hanson.

Nurs.Ed.66f. Introduction to Advanced Clinical Nursing. The present trends in scientific studies and in public health and psychological aspects of problems related to health and disease. Study of scientific basis of investigation and its application to problems of health and illness. Practice in the selection and use of source materials. Acquaintance with community facilities and organizations for the promotion of health and care of the sick. Observation in out-patient department and in community welfare and health agencies. Orientation to hospitals where clinical experience is assigned. 5 cred. Coe and staff.

- Nurs.Ed.66Af. Introduction to Advanced Clinical Nursing. For students enrolled in certificate curriculum in Advanced Rural Nursing. 3 cred. Coe and staff.
- Nurs.Ed.67f,w,s. Field Practice in Ward Administration. Practice in the administration of a ward, in the supervision of nursing service, and in the planning of the students' clinical experience in that division. Participation in the ward teaching program. 6 cred.; prereq. Nurs.Ed. 60, 65, 73, and Ed.T. 51B or concurrent reg., cons. of instr. Grainger.
- Nurs.Ed.68f. Construction and Use of Examinations and Other Measurement in Basic Nursing Courses. Study of criteria for judging and improving methods of educational measurement; discussion of examinations as aids to student progress; relation of examination scores to grading systems. Practice in making and scoring course examinations. 3 cred. Johnson.
- Nurs.Ed.69f,s. Survey of Conditions and Trends in Nursing. A study of conditions existing in nursing as revealed in literature and reports. 3 cred. Densford and staff.
- Nurs.Ed.72f. Application of Principles of Learning to Clinical Instruction. Study of learning situations in the basic professional program in nursing. Sources and selection of materials and organization of instruction. Evaluation of student learning in clinical situations. 3 cred. Boyle.
- Nurs.Ed.73w. Principles of Economics in Nursing Service Administration. A study of the principles of business administration in their application to hospital organization and management. 1 cred. Stephan.
- Nurs.Ed.74w. Sciences in a School of Nursing Curriculum. Discussion of objectives, course content, methods of instruction, choice of textbooks, integration of subject matter, and schedule planning as applied to the teaching of sciences in schools of nursing. Observation of classroom and laboratory instruction. This course should be carried during the winter quarter of the fifth year, but may not be carried in the same quarter as Ed.T. 51B. 5 cred.; prereq. cons. of instr. Coe. Not offered in 1950-51.
- Nurs.Ed.75. Fundamentals of Administration in Schools of Nursing. Concept of school of nursing and nursing service; functions of administration in schools of nursing. 2 cred.; prereq. cons. of instr. Densford and staff. Offered only in the first term of Summer Session.
- Nurs.Ed.86f. Nursing Service Administration in Government Hospitals. For nurses returning to government hospitals. Review of selection process in civil service program; study of personnel management, staffing of nursing service; staff education program, formulation of nursing budget, organization and function of hospital committees. 2 cred.; prereq. cons. of instr. Grainger and staff.
- Nurs.Ed.162w. Personnel Work in Nursing. Survey of principles and techniques of personnel work applied to problems in nursing. Review of such topics as individual differences, human behavior, personality in relation to problems in personal and educational guidance. The use of such techniques as psychological tests, personnel records, orientation periods, remedial programs and counseling interviews in the guidance of student and graduate nurse groups. 3 cred. Johnson.
- Nurs.Ed.165w. Problems in Nursing Care. An introduction to research in nursing; each student works on a problem of her own selection, and must demonstrate ability to define the problem, carry on independent study, and prepare a report. 3 cred.; cons. of instr. Hanson.

- Nurs.Ed.167f,w,s. Studies and Experience in Ward Administration. Introduction to the application of research techniques to problems in hospital nursing service; study of hospital organization and departmental interrelationships; practice in managing a nursing service unit, planning patient care, maintaining the physical environment, directing activities of personnel; observation and participation in student programs. 8 cred.; prereq. Nurs.Ed. 60, 65, 73, and Ed.T. 51B or concurrent reg. Grainger.
- Nurs.Ed.171f,w,s. The Curriculum of the School of Nursing. Principles of curriculum development applied to educational programs in nursing. 3 cred.; prereq. Nurs.Ed. 69 and Ed.T. 51A-B or concurrent reg. Harrington.
- Nurs.Ed.190s. The Survey in Nursing Education. Introduction to the use of survey techniques in evaluating an educational situation, as a basis for improvement of an existing program, as a basis for justification of proposed changes involving such areas as budget, facilities, organizational relationships, curriculum. 3 cred.; prereq. cons. of instr. Harrington.
- Nurs.Ed.271f. Problems in Curriculum. Special problems related to curricula in basic professional nursing, advanced professional nursing and practical nursing. Each student works on a problem of her own choice. 3 cred.; prereq. Nurs.Ed. 171, cons. of instr. Harrington.

PHYSICAL EDUCATION FOR MEN

Nonprofessional Courses

- Phys.Ed.1A-B-C. Sports Education. An orientation course in physical education consisting of instruction and participation in four sports each quarter including touchball, volleyball, basketball, badminton, handball, squash rackets, swimming, boxing, wrestling, track, tennis, and softball. Also includes adapted activities for handicapped students.
- Phys.Ed.2A-B-C. Sports Education. Elective specialized courses in physical education including instruction in advanced swimming, diving, lifesaving, bowling, boxing, wrestling, weight lifting, badminton, basketball, golf, track, softball, handball, and squash rackets.

Professional Courses

- Phys.Ed.4Aw. Football Fundamentals. Demonstrations and practice in football fundamentals for all positions on a football team. 1 cred. Roning.
- Phys.Ed.4Bs. Basketball Fundamentals. Demonstrations and practice in such fundamentals as footwork, passing, dribbling, goal throwing, individual and team defensive tactics. 1 cred. Vancisin.
- Phys.Ed.4Cf. Track Fundamentals. Demonstrations and practice in all track and field events. 1 cred. Kelly.
- Phys.Ed.5Af. Touch Football, Calisthenics, Tactics. Includes touch football, six-man football, calisthenic nomenclature, conditioning drills, posture exercises, mimetics, story plays, reconditioning exercises, grass drills, marching tactics. 1 cred. Ostrander, Roning.
- Phys.Ed.5Bf,w. Gymnastics. Stunts on the buck, side horse, long horse, parallel bars, low bar, high bar, rings, trampoline, springboard, and mats; stall bar exercises; rope climbing; and pyramid building. 1 cred. Ostrander.

- Phys.Ed.5Cs. Stunts, Contests, Softball, Baseball. Individual, double and triple stunts; combative stunts; mass contests; weight lifting; softball; baseball fundamentals. 1 cred. Ostrander, Siebert.
- Phys.Ed.6Af. Intramural Sports. Soccer, speedball, and volleyball fundamentals and team play. 1 cred. Roning.
- Phys.Ed.6Bw. Intramural Sports. Ice hockey, handball, and squash rackets. 1 cred. Roning.
- Phys.Ed.6Cf,w,s. Aquatics. Advanced swimming, diving, lifesaving, and small crafts. 1 cred. Thorpe.
- Phys.Ed.7Af. Games and Relays. Low organized games for gymnasiums, playgrounds, camps, etc.; social games for recreation; progressive game parties; relays. 1 cred. Piper, Ostrander.
- Phys.Ed.7Bw. Boxing and Wrestling. 1 cred. Bartelma, Chisholm.
- Phys.Ed.7Cs. Recreational Games. Badminton, aerial darts, deck tennis, paddle tennis, table tennis, tether ball, bowling, horseshoes, box hockey, and archery. 1 cred. Pipe, Ostrander, Osell.
- Phys.Ed.8s. Tennis and Golf. 1 cred. Brain, Bolstad.
- Phys.Ed.9Aw. Fundamental Rhythms. Basic rhythmic steps. Folk dances for elementary schools. 1 cred. Piper.
- Phys.Ed.9Bs. Folk, Square, and Ballroom Dancing. Instruction in circle, line, square, and mixer dances; fox trot, waltz, tango, Lindy, rumba, samba, schottische, polka, varsovienne, and other couple dances. 1 cred. Piper.
- Phys.Ed.11Af-Bw-Cs. Survey of Recreation Activities. This course has a two-fold purpose. First, to search out, analyze, and classify recreation opportunities on the campus and in the Twin Cities area. Second, to study the group in relation to the individual, in relation to other groups, and in relation to the community. For this purpose, the student becomes an active member of a campus group of his own choosing and studies relationships mentioned as a member of the group. 1 cred. per qtr. Giles.
- Phys.Ed.23Af-Bw-Cs. Introduction to Recreation Leadership. The purpose of this course is to give the student an opportunity to study group practices, organization and activities and to become conversant with leadership problems involved therein. The students are assigned to the office of the program consultant at Coffman Memorial Union. They join a group of their own choosing in Union activities. 1 cred. per qtr.; prereq. 11A-B-C. Giles.
- Phys.Ed.32f. Introduction to Physical Education. An orientation course covering briefly the history, vocational aspects, and fundamental principles of physical education. 3 cred. Bartelma.
- Phys.Ed.43s. Camp Aquatics. This course is designed to prepare camp counselors to administer a waterfront and to give practice in the basic skills in the use of small craft. 2 cred. Ostrander.
- Phys.Ed.45f. Camp Craft. The purpose of this course is to provide direct experiences in camp craft activities including the variety of skills and interests related to outdoor education and living. 2 cred. Ostrander.
- Phys.Ed.46f. Camp Leadership. Introduction to the field of organized camping. Development of an understanding of the activities of organized camping on the part of students who wish to become camp counselors. 2 cred. Osell, Thorpe.
- Phys.Ed.49f. Social Aspects of Leisure. This course revolves around a sociological consideration of leisure and recreation as parts of our total social-economic structure. The major significance and implica-

- tions of leisure and recreation in modern society are stressed from a sociological standpoint. Out of the above discussions is drawn a modern philosophy of leisure and recreation. 3 cred. Fitzgerald.
- Phys.Ed.50f. Human Anatomy. A study of the human body with emphasis on the bones, nerves, and muscles and their significance in physical education. 3 cred. Osell.
- Phys.Ed.51f. Mechanics of Movement. A study of the structure of the body and the principles and mechanics of bodily movements. 3 cred.; prereq. 50 or Anat. 57. Osell.
- Phys.Ed.52w. The Leadership in Social Activities. The course is planned to meet the need for a technique of leadership in social activities whether in schools, camps, churches, social settlements, community houses, or other places. It includes methods of planning, organization, and leadership of social games, picnics, parties, social dances, and outings. 3 cred. Ostrander.
- Phys.Ed.55f,w. Methods and Materials in Physical Education. The application of principles of methodology in the teaching of physical education class activities and in coaching; analysis and study of the techniques of measurement devices for grading and classifying pupils. Includes three hours per week in observation and practice in leadership in activities classes. 4 cred.; prereq. 5A-B-C, 6A-B-C, 7A-B-C. Bartelma.
- Phys.Ed.56f. The Theory of Play. The first quarter proceeds from an understanding of the biological play drives and the theory and philosophy of play and recreation, to the history and place of play and recreation in the modern world and their function in building an integrated personality. 3 cred.; soph., jr., sr. Giles.
- Phys.Ed.57w. The Operation and Conduct of Play Centers. This course deals with the problems of operation and management of the community center and the community playground including leadership, facilities, equipment, program, and problems of organization and administration. 3 cred. Giles.
- Phys.Ed.58s. Leadership in Community Recreation. The third quarter is a survey course of the entire field of community recreation beginning with the consideration of the objectives of leadership and proceeding to a survey of the history, place, value, program and general principles of leadership organization of community music, community drama, community nature, community arts and crafts, community athletics, and community social activities. 3 cred.; prereq. 57. Giles.
- Phys.Ed.59s. Instructor's Course in First Aid. Designed to prepare students to teach the standard course in first aid. The first aid instructor's certificate will be issued to those who satisfactorily complete the course and its prerequisites. 3 cred.; prereq. 25 or 26. Osell.
- Phys.Ed.60As. Prevention and Care of Injuries. Policies for conditioning of athletes in interscholastic and intercollegiate sports, safety controls, and care and prevention of injuries in physical education activities. 3 cred.; prereq. 50 or Anat. 57, 51. Stein.
- Phys.Ed.60Bf,w,s. Athletic Training Laboratory. Thirty hours of practical experience in the training room under supervision. 1 cred.; prereq. 60A. Stein.
- Phys.Ed.61s. History of Physical Education. A study of the influence of social, economic, political, and religious factors in the development of physical education from ancient times to the present. Special treatment will be given to the origin and development of games and sports. 3 cred. Keller.

- Phys.Ed.63s. Organization and Administration of Physical Education. Problems of organization, administration, and supervision in required and elective courses, intramural and interschool athletics. 3 cred.; prereq. 32 or 101, 55. Piper.
- Phys.Ed.64Aw-Bs. Leadership in Nature Recreation. The course provides the student with an understanding of the type and scope of the nature recreation field and program and develops actual acquaintance with the common fauna of the Upper Midwest. The first quarter gives the student a background of knowledge as to the organization of nature programs in recreation. The second quarter uses the field trip method to acquaint the student with the common plant life, trees, flowers, insect life, birds, and stars. 4 cred.; prereq. 15 cred. in nat. sci. Thompson.
- Phys.Ed.65w. Adapted Physical Education. A course designed to acquaint students with the philosophy, principles, and techniques of adapting the physical education program to meet the needs of handicapped pupils. 3 cred.; prereq. 51, Anat. 57. Osell.
- Phys.Ed.66f. Officiating Football and Basketball. Qualifications of officials, officiating ethics, discussion of rules, and officiating techniques. Three hours per week in officiating practice under supervision. 3 cred.; prereq. 4A-B. Nordly.
- Phys.Ed.67s. Football Coaching. A study of the theory, strategy, generalship, styles of offense and defense, methods of organizing practices, and handling of men in coaching football teams. 2 cred.; prereq. 4A or one year of experience on squad. Bierman.
- Phys.Ed.68f. Basketball Coaching. A study of the theory, styles of offense and defense, the conditioning and handling of players in coaching basketball teams. 2 cred.; prereq. 4B. Cowles.
- Phys.Ed.69f. Track Coaching. An analysis of the techniques of performance in all of the standard track and field events; methods of coaching; organization of track meets; study of rules; officiating methods and practice. 2 cred.; prereq. 4C. Kelly.
- Phys.Ed.72w. Baseball Coaching. The theory of playing each position, batting, coaching on bases, and team play; study of the rules; officiating methods and practice; organization of practices in coaching baseball teams. 2 cred.; prereq. cons. of instr. Siebert.
- Phys.Ed.73,74,75f,w,s. Directed Teaching. Six hours per week in observation and practice teaching under supervision. One quarter will be devoted to coaching and two quarters to teaching in physical education classes including experience at two of the three school levels—elementary, junior high, senior high schools. 2 cred. per qtr. Bartelma.
- Phys.Ed.78w. Scout Leadership. An orientation course for students who are interested in the Boy Scout program. 2 cred. Osell.
- Phys.Ed.101w. Principles of Physical Education. A study of the aims, scope, and biological aspects of physical education with special treatment of its place in education. 3 cred.; prereq. 55. Keller.
- Phys.Ed.105f. Conservation of Natural Resources. This course aims to develop an understanding of the importance of natural resources in our environment and to relate this understanding to recreation and outdoor education. 2 cred.; sr. and grad. Keller.
- Phys.Ed.107w. Camp Administration. This course is intended to help prepare qualified personnel to assume the responsibilities of camp administration. Discussion is centered around administrative prob-

lems; development, operation, and maintenance of facilities; business administration; personnel; and evaluation of camp experiences. 3 cred.; prereq. 47 and cons. of instr. Osell.

Phys.Ed.110s. Recreation Surveys. A course in community fact finding and technique of gathering materials for community recreation surveys. In the last half of the course the student selects a recreation survey for individual analysis followed by presentation to the class. 2 cred.; prereq. 58. Fitzgerald.

Phys.Ed.111f. Recreation Areas and Facilities. Presentation of the latest material on recreation facilities and areas. Classification, layout, design, and standards for recreation buildings and areas including the following: the preschool children's playground, playfields, neighborhood parks, large parks and reservations, community recreation buildings. Problems of maintenance, equipment standards, and purchasing of supplies and equipment are considered. 3 cred.; prereq. 58. Fitzgerald.

Phys.Ed.112w. Programming in Recreation. A study of principles of program planning for an organized offering of recreation opportunities. 3 cred.; prereq. 58. Fitzgerald.

Phys.Ed.116s. Community Recreation Resources and Organizations. The course seeks to create an understanding of the work of community recreation agencies such as the Boy Scouts, Girl Scouts, Y.M.C.A., 4-H Clubs, social settlements, State Departments of Education, State Departments of Conservation, State Departments of Welfare, and so forth. Representatives of the various organizations appear before the class to present their programs. One period each week is used to summarize and interpret relationships in the field of recreation. 3 cred.; prereq. 110-111-112. Ostrander.

Phys.Ed.121s. Principles of Recreation Methods. This course studies recreation technique and methods as applied to the individual leader, the group, the community, and to all the areas in community recreation—the arts and crafts, music, drama, nature, social activities, and games and sports. 3 cred.; prereq. 84A-B-C, 85A-B-C. Fitzgerald.

Phys.Ed.131f. Industrial Recreation. This course describes the history, scope, place, and relationship of management—employee recreation. Organization, administration, facilities, leadership, finance, community relationship, and program are aspects of the industrial recreation field that are considered. 3 cred.; prereq. cons. of instr. Fitzgerald.

Phys.Ed.135s. Tests and Measurements in Physical Education. Critical analysis of existing testing methods in physical education. Study of current tests from both practical and theoretical standpoints. Use of tests in the administration of physical activity programs. Application of the principles of test construction to specific problems in physical education. 3 cred.; prereq. 10 cred. in phys. ed., Ed.Psy. 60 or equiv. Keller.

Phys.Ed.141w. Hospital Recreation. The course is planned for those particularly interested in the field of hospital recreation and to provide a general background for the recreation leader and recreation administrator. While hospitals differ in organization, facilities, equipment, personnel, and type of patients, there is need for an understanding of the place of recreation in hospitals and similar institutions. 3 cred.; rec. majors only. Fitzgerald.

- Phys.Ed.155f. Instructional Aids in Health, Physical Education, and Recreation. A survey and evaluation of instructional materials in these fields with emphasis on audio-visual aids; lecture and laboratory. 3 cred.; prereq. sr., grad. Bartelma.
- Phys.Ed.233w.* Special Administrative Problems in Physical Education in Secondary Schools. Staff organization; supervision; current required and adapted physical education programs; intramural and interscholastic athletic problems; legal aspects; professional and public relations. 3 cred. Nordly.
- Phys.Ed.234s. The Secondary School and College Curriculum in Physical Education. Theory and principles of curriculum construction applied to physical education. Evaluation of activities and critical analysis of existing programs. Practical application of principles in the development of a physical education curriculum. 3 cred. Piper, Nordly.
- Phys.Ed.236f. Recent Literature and Research in Physical Education and Recreation. Directed readings and class discussions of recent literature; critical analysis of research in physical education and recreation; current research problems; steps involved in solving selected problems. 3 cred. Nordly.
- Phys.Ed.238f.* Administration of Physical Education in Colleges and Universities. A study of the problems connected with the administration of the facilities and programs in physical education and athletics in institutions of higher education. 3 cred. Keller.
- Phys.Ed.240f. Legal and Financial Aspects of Recreation. Materials covered in this course include state laws affecting recreation and parks, local ordinances, state aid for recreation, fees and charges, concessions, recreation taxes, bond issues, basic means of financing public and private agencies in recreation and liability in public and private recreation agencies. 3 cred. Fitzgerald.
- Phys.Ed.241w. The Administration and Supervision of Public Recreation. The course is designed to present basic principles of administration of public recreation programs. The course has a special interest for all persons dealing in the area of public welfare work and for administrators, leaders, and workers in the field of social group work, physical education and general education as well as public recreation. Course content includes organization for recreation and policies and procedures relating to recreation finance, program, facilities, office management, legislation, and public relations. 3 cred. Fitzgerald.
- Phys.Ed.242s. Community Organization for Recreation. The course is designed to inquire into the nature, scope, principles, and procedures in community organization with particular attention to those principles and practices that have reference to community organization for recreation. 3 cred. Fitzgerald.
- Phys.Ed.247w,s.* Problems in Physical Education and Recreation. An independent study course in which students work on chosen problems in which they conduct research. Individual conferences are arranged with the instructor. Cred. ar. Nordly.
- Phys.Ed.250f. The Administration of Health Education, Physical Education, and Recreation. Current problems of school administrators. A course for school principals, superintendents, and others not majoring in physical education. 3 cred. Nordly.
- Phys.Ed.261f,s. Seminar in Physical Education and Recreation. Cred. ar. Fitzgerald, Nordly.

PHYSICAL EDUCATION FOR WOMEN*Courses for Undergraduate Students*

Phys.Ed. General Course in Physical Education. Students register for this course without number. This course, 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 women students. The program offers an opportunity to take courses for the purpose of body building and conditioning and for the acquisition of personal and recreational skills. This course permits choice, based on guidance of the faculty advisers in the following:

Aquatics

Canoeing
Swimming, beginning, advanced
beginning, intermediate, advanced and synchronized diving
Lifesaving, American Red Cross senior course
Water safety, American Red Cross, preliminary water safety instructors' review and water safety instructors' course

Rhythms

Folk and square dance
Modern dance, elementary, intermediate, advanced, and composition
Social dance
Tap dance

Individual Sports

Archery, elementary and intermediate
Badminton, elementary and intermediate
Bowling

Recreational Activities for Which No Registration Is Required

Inquire at 101 Norris Gymnasium for Women as to hours.

Archery
Badminton
Basketball
Exercises for body building
Fencing
Modern dance

Fencing

Golf, elementary, intermediate, advanced

Horseback riding, elementary

Rifle marksmanship

Skating, plain and figure

Social games and mixers

Skiing

Tennis, elementary, intermediate, advanced

Body Building

Individual body building

Team Sports Officiating

Basketball

Softball

Volleyball

Team Sports

Basketball

Field hockey

Recreational games

Softball

Volleyball

Professional Courses for Undergraduate Majors

Phys.Ed.20ABCf-21ABCDEw-22ABCs. § Physical Education Activities. Fall: (20A) badminton, ½ cred.; (20B) skills and officiating of fall teamsports, 1 cred.; (20C) orientation to physical education, ½ cred. Winter: (21A) advanced basketball, ½ cred.; (21B) rhythmic fundamentals and elementary folk dance, 1 cred.; (21C) recreational activities, 1 cred.; (21D) stunts and tumbling, 1 cred.; (21E) winter sports, ½ cred. Spring: (22A) folk and ballroom dance, 1 cred.; (22B) golf, track and field, 1 cred.; (22C) tennis, 1 cred. Ar.

‡ Students must supply their own tennis and their own golf equipment if possible.

- Phys.Ed.25f,w,s. First Aid. Lectures, demonstrations, and practice in emergencies and first aid treatment. Special emphasis on care of injuries in physical education. An American Red Cross Standard Certificate in First Aid is received upon successful completion of this course. 1 cred. Ar.
- Phys.Ed.26f. Advanced Course in First Aid. Lectures and laboratory practice in advanced first aid techniques. Special emphasis on the ability to assume leadership in typical emergency situations. The American Red Cross Advanced Certificate is received upon completion of this course. 1 cred.; prereq. phys. ed. majors. Ar.
- Phys.Ed.27s. Instructor's Course in First Aid. Lecture and laboratory practice in the techniques of teaching first aid. Special emphasis on instruction at the junior-senior high school level. The American Red Cross Instructor's Certificate is received upon the successful completion of this course. 1 cred.; prereq. 26. Jaeger.
- Phys.Ed.40ABCf-41ABw-42As.§ Physical Education Activities. Fall: (40A) modern dance, 1 cred.; (40B) skills and officiating of softball and volleyball, 1 cred.; (40C) apparatus and functional exercise, 1½ cred. Winter: (41A) advanced aquatics, 1 cred.; (41B) officiating basketball, ½ cred.; prereq. 21A advanced basketball. Spring: (42A) life saving and water safety, 1 cred.; prereq. 41A advanced aquatics. Ar.
- Phys.Ed.45w,s. Introduction to the Elementary Physical Education Program. Laboratory course for Phys.Ed. 58. This course is designed to give the student experience with graded activities such as playground games, low organized team games, ball skills, rhythms, stunts and tumbling, posture and body mechanics for the elementary school child. Consideration given to problems of organization and teaching progressions. Student teaching within the group, 2 cred.; prereq. elem. ed. majors only. Hauptfuehrer.
- Phys.Ed.47w. The Teaching of Dance and Rhythmic Activities. A study of methods in the teaching of creative rhythmic activities as well as singing games, folk and ballroom dance. The former will include an approach to children's rhythms and also an approach to the teaching of modern dance in the high school and college. There will be opportunity for practice teaching within the group and opportunities for observation in the city schools. 3 cred.; prereq. cons. of instr. Bockstruck.
- Phys.Ed.48s. The Teaching of Individual and Dual Sports. This course deals with special techniques and methods of teaching archery, badminton, bowling, golf, and tennis. Student teaching within the group. Organization of competitive and recreational programs. 2 cred.; prereq. cons. of instr. Jaeger.
- Phys.Ed.49s. The Teaching of Team Sports. Special techniques for each sport and methods of teaching. Organization of extracurricular activities. Practice in skills and student teaching within the group. 3 cred. Hauptfuehrer.
- Phys.Ed.51f. Mechanics of Movement. Lectures on the principles of mechanics of movement with laboratory studies involving the kinesiological analysis of sport techniques. 3 cred.; prereq. Anat. 57. Wilson.
- Phys.Ed.53w. The Role of the Physical Educator in Recreation. Lectures and committee projects designed to prepare the physical education teacher for her function in school and community recreation. Labora-

‡ Students must supply their own tennis and their own golf equipment if possible.

tory activities enabling students to plan and organize activities for a variety of recreational situations. 3 cred.; prereq. phys. ed. major, jr. Tinker.

Phys.Ed.54s. Camp Leadership. Practical work in camp craft, organization, and administration of the camp program; responsibilities and duties of a counselor; experience in leadership in camp activities. 3 cred. Tinker.

Phys.Ed.56s. Advanced Folk Dance. Combined theory and practice of folk arts with emphasis on national and racial origins and the relationship of dance to other folk arts. 2 cred.; prereq. cons. of instr. Bell, Bockstruck.

Phys.Ed.57Af-Bw. The Teaching of Aquatics. Description of strokes, diving, stunts and water safety techniques, methods of teaching swimming, student teaching in class, synchronized swimming and aquatic clubs, organization and management of competitive and recreational aquatic activities, essentials of pool control and sanitation, the testing program in aquatic skills. 2 cred.; prereq. 41A, 42A. Spears.

Phys.Ed.58f,w,s. Introduction to the Elementary Physical Education Program. This course is designed to help the elementary classroom teacher assume responsibility for the teaching of physical education at the elementary level. Special emphasis given to planning and methods of instruction in physical education with implications for health education and safety education, study of the Minnesota State Course of Study, and supervision. Students will be given the opportunity to observe physical education classwork at the elementary level. 3 cred.; prereq. 3rd qtr. soph., elem. ed. majors. Ericson, Jaeger, Tinker and Wilson.

Phys.Ed.60s. Principles of Play. A study of the nature and function of play, factors influencing play interests, a brief consideration of the organization and administration of play, and experience in selected playground activities. 3 cred. Tinker.

Phys.Ed.62f. The Teaching of Physical Education Activities. This course is designed for students minoring in physical education. A study of methods of teaching physical education activities in the areas of team sports, individual sports, rhythms, and self testing. Special emphasis given to junior-senior high school program. 3 cred.; prereq. phys. ed. minors and rec. majors. Hauptfuehrer.

Phys.Ed.64s. The Teaching of Group Gymnastics. A study is made of the principles of progression and methods of teaching gymnastics. Student teaching is done within the group. 1 cred.; prereq. 40C. Ericson.

Phys.Ed.66f. Advanced Physical Education. This course deals with fundamentals in physical education as applied in the elementary school. 1 cred.; prereq. jr. Jaeger.

Phys.Ed.71. Applied Physiology. Lectures and laboratory problems demonstrating the physiological bases for objectives and content of the physical education program.

Phys.Ed.79. Massage and Therapeutic Exercises. A consideration of the principles of massage and the study of conditions especially applicable to physical education. The practical application of these principles to athletic injuries, foot disorders, paralysis, and certain functional and nervous disorders, etc. Visits to Twin Cities physiotherapy departments.

Phys.Ed.80f. Principles of Rhythm. A study of the history of rhythm; also the study of rhythm and dance in relation to allied arts and the place of rhythm in physical education. 3 cred.; prereq. cons. of instr. Bockstruck.

- Phys.Ed.82f. Principles of Physical Education. Philosophy of physical education and principles underlying curriculum building, methods of teaching, measurement, and outcomes. 3 cred.; prereq. sr. Wilson.
- Phys.Ed.83w. School Health Education. Method and content. See Ed.T.83. Ericson.
- Phys.Ed.84w. The Physical Education Program in the Elementary and Secondary School. A study of curricular problems in the field of physical education carried on by individuals or groups. The emphasis is on the elementary and high school level. 3 cred.; prereq. sr. Jaeger.
- Phys.Ed.85s. Remedial Activities in Physical Education. Adaptation of the physical education program to the needs of the atypical child. Principles and techniques in the correction of postural defects. Use of corrective exercises in the follow-up of the recommendations of the health examination. 3 cred.; prereq. jr. Wilson.
- Phys.Ed.87w. Dance Composition. An advanced course in modern dance combining theory and practice. The emphasis will be on principles of composition with practical application for individual and group creative work. 2 cred.; prereq. cons. of instr. Bell.
- Phys.Ed.88s. Advanced Problems in Dance Composition. An advanced course in dance composition in which the various approaches to composition will be studied. Group and individual problems will be assigned according to the interests and needs of the class. 2 cred.; prereq. cons. of instr. Bell.
- Phys.Ed.89s. Dance Production. A course which will include the various phases of dance production in schools and colleges. Emphasis will be placed on the dance recital, the dance demonstration and the folk festival. Elements of stagecraft and costuming will be included in the course. 3 cred.; prereq. cons. of instr. Bell, Bockstruck.
- Phys.Ed.90Af-Bw-Cs. Student Teaching in Physical Education. Student teaching in team and individual sports, aquatics, rhythms, self-testing fundamentals of movement and school health education. 8 cred.; prereq. 55A-B. Jaeger, Hauptfuehrer.
- Phys.Ed.94f,w,s. Student Teaching in School Health Education. Student teaching in health education in Minneapolis elementary and secondary schools. 2 cred.; prereq. Ed.T. 83, sr., cons. of instr. Ericson.
- Phys.Ed.95s. Administration of Physical Education. The study of the professional responsibilities of physical education teachers; the organization of the class and extracurricular program in the school and community setting; appraisal of activities; protection and classification of students; standards for the operation of the physical education plant. 3 cred.; prereq. sr. Baker.

Courses for Undergraduate and Graduate Men and Women Students

- Phys.Ed.113w. Physical Education in the Elementary Schools. The course deals primarily with the elementary school curriculum, with adaptations of instructional procedures necessary in the elementary grades, with problems of classification and evaluation, and with the influence of modern educational thinking upon problems commonly met at this level. 3 cred.; cons. of instr. Baker.
- Phys.Ed.114s. School Health Education Program. A study of the program of health education in public elementary and secondary schools with special reference to curriculum construction; health supervision and

guidance; relationships between the public schools and governmental health organizations and agencies; and evaluation of the school health program. Students are given guidance in the solution of individual professional problems. 3 cred.; sr., grad.; prereq. Ed.T. 83 or P.H. 50 or equiv., or cons. of instr. Ericson.

Phys.Ed.115f. Recent Literature and Research in Mechanics of Movement. An analysis of techniques of mechanics and kinesiology of movement; consideration of a variety of skills as well as those of particular interest to the class; an evaluation of pertinent methods and devices used in current research; an application of analyses and evaluations to an individual project. 3 cred.; prereq. undergraduate course in kinesiology or cons. of instr. Wilson.

Phys.Ed.117w. Advanced Course in School Health Instruction. Discussion of instructional problems in school health education at elementary, secondary and college levels. Application of course to individual problems. 3 cred.; prereq. Ed.T. 83, or cons. of instr. Ericson.

Phys.Ed.118Ef,w,s. § Problems in Teacher Education in Health, Physical Education, and Recreation. This is a course for M.Ed. students who are interested and participating in the conduct and development of professional teacher education programs in the fields of health, physical education, and recreation. Included in this course are general discussion of problems, presentation of evidence from available studies, and the development of specific studies by class members. Cred. ar.; cons. of departmental advisers. Baker, Ericson, Wilson.

Phys.Ed.123f. An Advanced Course in Methods of Teaching Physical Education. The purpose of this course is to give an overview of the activity program in reference to instructional procedures. Outstanding results of the course should be increased perspective of the common methods problems in the various activities as well as those peculiar to each activity and possible solutions for conspicuous instructional problems today. 3 cred.; prereq. cons. of instr. Ericson.

Phys.Ed.124s. Supervision of Physical Education. This course presents a consideration of the function, organization, and administration of supervision in physical education; adaptations of accepted procedures for inspection, guidance and training of teachers in the field, and problems peculiar to supervision of physical education. 3 cred.; prereq. cons. of instr. Ericson.

Phys.Ed.135s. Tests and Measurement in Physical Education. The course presents a critical analysis of existing and needed testing procedures in physical activities for elementary school children and for girls and women. Pertinent skill and knowledge tests examined and evaluated for practical use; application of test construction technique culminating in an individual problem. 3 cred.; prereq. sr., Ed.Psy. 60 or equiv. Wilson.

Phys.Ed.221. Seminar in Physical Education. Discussion of individual projects and current problems in physical education. Consult adviser.

Phys.Ed.224f,w,s. Research Problems in School Health Education and Physical Education for Women. Individual problems and conferences. Cred. ar.; cons. of departmental graduate advisers. Baker, Ericson, Wilson.

§ 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.

SCHOOL OF PUBLIC HEALTH

- P.H.3f,w,s.§ Personal Health. Elementary principles of normal body function; predisposing and actual causes of disease; ways in which disease may be avoided. 2 cred.; fr., soph.; no prereq.; not open to students who have taken G.C. 10C. Thomson.
- P.H.4w,s.§ Health Problems of the Community. Personal health and prevention of disease in the family; relation to community health and disease control, important diseases and their prevention. 2 cred.; prereq. 3 or G.C. 10C. Students exempted from P.H.3 on the basis of military service will not be accepted in this course. Fox.
- P.H.50f,w,s.§ Personal and Community Health. Causes of diseases and of physical defects; fundamental principles and working methods of health conservation and disease prevention. Lectures, discussions, and directed readings. 3 cred.; not open to students who have taken 3, 4, 51, 52, 100 or G.C. 10C; no prereq. Thomson.
- P.H.51f,w,s.§ Community Hygiene. Elementary concepts of development, spread, and prevention of preventable diseases; community programs for their control. 3 cred.; jr., sr.; prereq. 3 or G.C.10C; not open to students who have taken 4, 50, 52, or 100. Students exempted from P.H.3 on the basis of military service will not be accepted in this course. Cowan.
- P.H.52af,s.§ Health Care of the Family. Factors affecting the health of the family as a unit; environmental factors, including elementary sanitation; prevention of accidents; communicable diseases, their transmission and prevention; prenatal and infant hygiene and care; principal problems in preschool and school hygiene. For home economics students. 2 cred.; soph., jr., sr.; prereq. Bact. 53, Hum.Physiol. 4; not open to students who have taken 4, 50, or 51; to be taken in conjunction with 52b. Todd.
- P.H.52bf,w,s.§ Home Nursing and Family Care. The home nurse and her responsibilities in care and observation of the patient ill at home. Care and equipment of the sick room at home. Home nursing care for communicable diseases and the chronically ill. Maternal and infant hygiene and care of the mother and baby. 1 cred.; to be taken in conjunction with 52a. Sandve.
- P.H.55w. Nursing and Social Problems in the Control of Gonorrhoea and Syphilis. History, prevalence, and epidemiology of gonorrhoea and syphilis, public health control measures; individual and family problems resulting from these diseases. Provision will be made for conferences and case discussion. 2 cred.; prereq. 53 or 100 and 62; Soc. 50-51 may be substituted by pre-social work students; open only to public health nurses and sociology majors. Taylor.
- P.H.57f.§ Health of Infant and Preschool Child. Maternal and child health in public health program, problems of infant and maternal mortality, growth and development of infant and young child, care and feeding of normal infant; prevention and correction of physical defects. 2 cred.; jr., sr.; prereq. 4 or 50, or 51, or 53, or 100. Boynton.
- P.H.58s. Maternal and Child Hygiene. Trends in the health care of mothers during the maternity cycle and of the child from conception through the preschool years; health problems, public health programs, and other community facilities. 3 cred.; nurses; prereq. 53 or 100 and 62. Boynton.

‡ No credit granted for this course in major sequence in public health nursing.

† No student may receive credit for both Courses 4 and 50, or for 4 and 51, or for 4 and 52, or for 50 and 52, or for 50 and 51, or for 51 and 52.

- P.H.59w,s.§ Health of the School Child. Mental and physical growth; prevention and control of diseases common to the school-age child; health appraisal; correction of physical defects; emotional problems; care of the handicapped; the school environment and its effect on child health; accident prevention and emergency care; practical problems of health supervision and administration. 3 cred.; prereq. 3 and 4, or 3 and 51, or G.C.10C and 4, or G.C.10C and 51, or 50, or 52, or 100. Exemption from P.H.3 on the basis of military service will not be accepted as substitute for suitable course in personal health. Thomson, Anderson.
- P.H.60f,s. Tuberculosis and Its Control. History of tuberculosis movement and campaign in the United States; early diagnosis and sanatorium treatment; tuberculosis in children; psychology of tuberculosis; supervision of returned sanatoria patients; state program for eradication of tuberculosis; legislation. 2 cred.; nurses, others admitted by special permission; prereq. 4, or 50, or 51, or 52, or 53, or 100 and 62. Myers.
- P.H.62f,w.† Principles of Public Health Nursing I. Trends, principles and techniques in public health nursing service including family health guidance. First hour section is for students who have not had practical experience in public health nursing; VI and VII hour section is for students who have had such experience. 5 cred.; public health nurses; others admitted by permission; prereq. 100 or equiv. but may be taken concurrently. Taylor.
- P.H.63w,s.‡ Principles of Public Health Nursing II. Organization of public health nursing services; program planning; evaluation; professional problems in public health nursing. 5 cred.; public health nurses; others admitted by permission; prereq. 62, 53 or 100 or equiv. but may be taken concurrently. Taylor.
- P.H.64w. Cancer Nursing and Nursing in Other Chronic Diseases. Review of the major diseases causing chronic illness; social and psychological factors in chronic illness; nursing responsibilities in prevention, care, and rehabilitation. 3 cred.; public health nurses only; others by permission; no prereq. Maloy.
- P.H.65f,w,s.§ Field Work in School Nursing. Credits allowed according to experience in this field. Working with the school nurse the student observes and participates in the activities included in the school nursing program; special attention to organization, relationships, techniques, methods of informal health teaching, provision for handicapped children, and home visiting. Cred. ar.; public health nurses only; jr., sr.; prereq. 53 or 100, 62, and 67. Vroom.
- P.H.66f,w,s.§ Field Work in Rural Nursing. Credits allowed according to experience in this field. The student accompanies the rural nurse on her rounds and observes and participates in the activities in a rural nursing program. Special attention to organization for rural health work, methods of health teaching, development of community leadership, planning and conducting classes of various types for differing age groups, home visiting, etc. Cred. ar.; public health nurses only; jr., sr.; prereq. 53 or 100, 62 and 67. Vroom.
- P.H.67f,w,s.§ Field Work in Urban Nursing. Credits allowed according to experience in this field. Lectures, demonstrations, and supervised experience in prenatal and infant clinics and in home visiting. This includes bedside care of all types of cases, with emphasis on promo-

§ No credit granted for this course in major sequence in public health nursing.

† To receive credit for this course the student must complete both Courses 62 and 63.

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

- tion of physical and mental health and recognition of social problems. Cred. ar.; public health nurses only; jr., sr.; prereq. 53 or 100, 62, Vroom, Palmer, and associates.
- P.H.69f,s. Nursing in Health Programs for School Age Children. Review of the health needs of children of school age; trends in organization and administration of school health programs; nursing functions related to such areas as health services, health instruction and healthful school living. 3 cred.; prereq. 53 or 100, and 62, 63, but may be taken simultaneously with 63, or with consent of instructor. Taylor.
- P.H.70f,w,s. Practice Teaching in Home Nursing or Child Care for Public Health Nurses. Includes practice in planning instruction and in teaching adults. Cred. ar.; jr., sr.; prereq. 67, Ed. 81, or cons. of instr.; enrolment limited. Sandve.
- P.H.80w. Elementary Vital Statistics. Sources of data on population mortality, morbidity, and natality. Calculation of rates and graphical comparison of time and age trends. 3 cred.; public health nurses or special permission of instructor. Treloar.
- P.H.91f,† Principles of Human Function. Tissues, physicochemical forces, metabolism, digestion, respiration, neuromuscular functions, circulation. 4 cred.; jr., sr.; prereq. 8 cred. in chem. and 4 cred. in human anat. or equiv.; primarily for students in physical education and public health. Henschel.
- P.H.92w,† Principles of Human Function. Endocrines, excretion, reproduction, special senses, central nervous system, growth and senescence. 4 cred.; jr., sr.; prereq. 91 or equiv.; primarily for students in physical education and public health. Taylor.
- P.H.95f. Principles of Human Nutrition. Particular reference to public health. The role of nutrients, nutritional composition of foods, food requirements, nutritional aspects of food production and processing, laws and regulations, food habits. 3 cred.; prereq. 3 cred. in chem. and 10 cred. in biol. Anderson.
- P.H.100f,s. Elements of Preventive Medicine and Public Health. Susceptibility and resistance to disease; occurrence and prevention of communicable, degenerative, and industrial diseases; protection of food, water, and milk; school health work; vital statistics. 5 cred.; prereq. 3 or 50, or equiv. and a course in bacteriology. Anderson, Thomson, Taylor.
- P.H.102f,s. Environmental Sanitation I. Methods for promoting man's health and comfort by controlling his environment; water supply sanitation; food sanitation; pollution abatement; sewage, excreta, and waste disposal; bathing place sanitation; air hygiene; illumination; housing; control of insect and animal vectors of disease; industrial hygiene and sanitation. 3 cred.; sr., grad.; prereq. 50 or 51 or 53 or 100 or by permission or may be taken concurrently with any of these. Pierce, Olson.
- P.H.103f,w,s. Public Health Bacteriology. Bacteriologic and serologic diagnosis, public health laboratory administration and methods. Cred. ar.; grad.; prereq. Bact. 101-102, 116 and cons. of instr. Bauer.
- P.H.106w. Public Health Administration. Structure, basic functions, and activities of public health agencies; public health laws and regulations; administrative procedures in public health practice; relation-

† Both quarters (91, 92) must be completed for credit except with special permission of instructor.

ship to other governmental and social activities. 3 cred.; physicians, engineers, nurses, social workers, and others by arrangement; prereq. 53 or 100, or equiv. Anderson.

P.H.125s. The Community Health Education Program. An introductory course for graduate students in public health, education, and related fields. Problems, principles, and procedures involved in development of community-wide health education programs. Special attention will be given to group procedures, including community organization, and to selection and use of media commonly employed in health education. 3 cred.; prereq. 53 or 100, or 104 and 106. Grout.

Courses in Biostatistics

P.H.110f,w,s. Biometric Principles. Introduction to statistical analysis with emphasis on basic principles of statistical reasoning. The description of univariate distributions, normal correlations, simple test of significance, and goodness of fit. 3 cred.; sr., grad.; prereq. 18 cred. in biol. sci., or math. through anal. geom.; to be taken with P.H.111. Treloar, Hartman, Thornton.

P.H.111f,w,s. Biostatistics Laboratory. Practical training in machine calculation and statistical techniques discussed in 110, with which it is to be taken concurrently. 2 cred.

P.H.120s. Correlation Analysis. Total, partial, and multiple normal correlation and regression; correlation ratio; contingency; biserial methods; tetrachoric correlation; rank-order correlation; the symmetrical table and intraclass correlation. Course 121 is to be taken concurrently. 3 cred.; prereq. 110. Hartman.

P.H.121s. Correlation Laboratory. Practical training in the techniques of 120 with which it is to be taken concurrently. 2 cred. Hartman.

P.H.130w. Random Sampling Distributions. Discussion of the sampling distributions of the more familiar statistics, the principles of statistical inference, and analysis of the problems of interpretation of differences, with special reference to small samples. Course 131 to be taken concurrently. 3 cred.; prereq. 110. Thornton.

P.H.131w. Sampling Laboratory. Study of the distributions of statistics derived from small samples by practical test. To be taken concurrently with 130. 2 cred. Thornton.

For other graduate courses in public health see the *Bulletin of the College of Science, Literature, and the Arts*, the *Bulletin of the Graduate School*, or the *Bulletin of the School of Public Health*.

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The Bulletin of the
UNIVERSITY of MINNESOTA

The College of Education Announcement
of Late Afternoon and Saturday Morning Classes
1950-1951



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September 6, 1950

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UNIVERSITY CALENDAR, 1950-1951

DAY CLASSES

1950			<i>Fall Quarter</i>
August 7-September 29			Fall registration. Dates for the various colleges will be announced in the press and in mailed instructions. Students are urged to register early. It is expected that all students who can do so will register before September 1
September 4	Monday		Labor Day; holiday
September 21	Thursday		Fall quarter fees due for students registered through September 15
September 25-29			New Students' Week. Details will be announced in instructions issued at registration. All new students are expected to attend
September 29	Friday		Last day for registration and payment of fees for the undergraduate colleges
October 2	Monday		Fall quarter classes begin 8:00 a.m. ¹
October 5	Thursday		Opening convocation, 11:00 a.m.; IV hour classes excused
October 6	Friday		Last day for registration and payment of fees for the Graduate School, and for teachers in service
October 12	Thursday		Columbus Day; holiday
November 4	Saturday		Homecoming Day
November 9	Thursday		Senate meeting, 3:00 p.m.
November 11	Saturday		Armistice Day; holiday
November 18	Saturday		Dads Football Game
November 23	Thursday		Thanksgiving Day; holiday
November 24, 25	Friday, Saturday		Classes excused
December 15, 16 and 18-21			Final examination period
December 21	Thursday		Commencement, 8:00 p.m.
December 23	Saturday		Fall quarter closes

Winter Quarter

December 25	Monday		Christmas Day; holiday
December 28	Thursday		Winter quarter fees due for students in residence fall quarter in undergraduate colleges
1951			
January 1	Monday		New Year's Day; holiday
January 4, 5	Thursday, Friday		Registration and payment of fees for new students in all undergraduate colleges
January 8	Monday		Winter quarter classes begin 8:00 a.m. ¹
January 12	Friday		Last day for registration and payment of fees for the Graduate School, and for teachers in service
February 11-17			University of Minnesota Week
February 12	Monday		Lincoln's Birthday; holiday
February 15	Thursday		Charter Day convocation, 11:00 a.m.; IV hour classes excused
February 22	Thursday		Senate meeting, 3:00 p.m. Washington's Birthday; holiday

¹ First hour classes begin at 7:45 a.m. on St. Paul Campus.

March 16, 17 and 19-22			Final examination period
March	22	Thursday	Spring quarter fees due for students in residence winter quarter in undergraduate colleges. Commencement, 8:00 p.m.
March	23	Friday	Good Friday; holiday
March	24	Saturday	Winter quarter closes

Spring Quarter

March	29, 30	Thursday, Friday	Registration and payment of fees for new students in all undergraduate colleges
April	2	Monday	Spring quarter classes begin 8:00 a.m. ¹ Registration and fee payment continue
April	6	Friday	Last day for registration and payment of fees for the Graduate School, and for teachers in service
April	12	Thursday	Parents Day
May	24	Thursday	Cap and Gown Day convocation, 11:00 a.m.; IV hour classes excused
May	30	Wednesday	Memorial Day; holiday
May	31	Thursday	Senate meeting, 3:00 p.m.
June 9 and 11-15			Final examination period
June	10	Sunday	Baccalaureate service, 11:00 a.m.
June	16	Saturday	Spring quarter closes. Commencement, 8:00 p.m.

Summer Session

June	18, 19	Monday, Tuesday	Registration for new students not already registered. First term fees due for students in all colleges
June	20	Wednesday	First term Summer Session classes begin 8:00 a.m. ¹
July	4	Wednesday	Independence Day; holiday
July	26	Thursday	Commencement, 8:00 p.m.
July	28	Saturday	First term closes
July	30	Monday	Registration for new students not already registered. Second term fees due for students in all colleges
July	31	Tuesday	Second term classes begin 8:00 a.m. ¹
August	30	Thursday	Commencement, 8:00 p.m.
September	1	Saturday	Second term closes

GENERAL EXTENSION DIVISION

1950

September	18	Monday	Registration, first semester, begins
September	30	Saturday	Last day for registration, first semester
October	2	Monday	First semester classes begin ²
November	23	Thursday	Thanksgiving Day; holiday
December	23	Saturday	Christmas recess begins

1951

January	8	Monday	Classes resume
January	29	Monday	Second semester registration begins
February	9	Friday	First semester classes close
February	10	Saturday	Second semester registration closes
February	12	Monday	Second semester classes begin ²
June	8	Friday	Second semester classes close

¹ First hour classes begin at 7:45 a.m. on St. Paul Campus.

² This date does not refer to correspondence study courses, which may be started at any time during the year.

BOARD OF REGENTS

The Board of Regents is composed of The Honorable Fred B. Snyder, Minneapolis, First Vice President and Chairman; The Honorable Ray J. Quinlivan, St. Cloud, Second Vice President; The Honorable James F. Bell, Minneapolis; The Honorable Daniel C. Gainey, Owatonna; The Honorable Richard L. Griggs, Duluth; The Honorable J. S. Jones, St. Paul; The Honorable George W. Lawson, St. Paul; The Honorable Albert J. Lobb, Rochester; The Honorable E. E. Novak, New Prague; The Honorable A. J. Olson, Renville; The Honorable Herman F. Skyberg, Fisher; and The Honorable Sheldon V. Wood, Minneapolis.

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Malcolm M. Willey, Ph.D., L.H.D., Vice President, Academic Administration
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Robert Edward Summers, M.S.(Ch.E.), M.E., Dean of Admissions and Records
Edmund G. Williamson, Ph.D., Dean of Students

DIRECTORY—COLLEGE OF EDUCATION ADMINISTRATION

(University of Minnesota Telephone—Main 8158)

W. E. Peik, Dean of the College of Education.....	204aBu
Marcia Edwards, Assistant Dean of the College of Education.....	202bBu
Willis E. Dugan, Director of Student Personnel.....	217Bu
Jean H. Alexander, Chairman, Students' Work Committee.....	210aBu
Paul R. Grim, Director of Student Teaching.....	210cBu
Arnold Woestehoff, Acting Director of Bureau of Recommendations.....	102Bu

See list of major advisers on pages 13 and 14.

GENERAL INFORMATION

The following program of late afternoon and Saturday classes is arranged by the College of Education for teachers in service. Many of the offerings are subjects required in the regular curricula for high school and elementary teachers, or in the specialized curricula. All courses numbered 100 or above may apply toward advanced degrees if approved by advisers as part of the graduate program. Students expecting to qualify for a degree should secure a copy of the *College of Education Bulletin* which contains a statement of general requirements for graduation and lists required courses in majors and minors and in the specialized curricula. Attention is called to the fact that courses are offered for the M.A. and the Ph.D. degrees in the Graduate School and also in many fields for the M.Ed. in the College of Education. The M.Ed. degree is offered in all special subject teaching fields such as physical education, art education, music education, home economics education, agricultural education, recreation leadership, and also in elementary education, rural education, English, science, and social studies. Students should consult a major adviser as early in their program as possible. Failure to do so often delays graduation and makes extra work necessary. Graduate students should consult the *Bulletin of the Graduate School*.

Bulletin changes and room schedules will be posted each quarter on the official bulletin board outside the door of Room 204 Burton Hall.

The fee for part-time registration in the College of Education is \$2.50 per credit for residents of the state and \$6.25 per credit for nonresidents. Other fees include special course fees and a \$5 deposit in all colleges except Graduate School where it is \$3. If six or more credits are taken, an incidental fee of \$13.35 is also required. Auditors pay the same fees as students registered for credit.

Telephone requests for information about College of Education matters should be made to Main 8158, Ext. 360 or 462.

REGISTRATION

Teachers in service may register from Monday through Friday of the first week of the quarter, if it is *impossible* for them to come in during the regular pre-registration period. Registration materials should be secured from the Office of Admissions and Records.

ADMISSION TO DEGREE PROGRAM

A teacher in service or other person who plans to proceed with a program of study leading to the B.S. degree in education should apply for admission to the College of Education as a regular student during the first quarter in which he or she registers for six or more credits in regular classes. Application for such admission should be made through the Office of Admissions and Records in the Administration Building of the University. Procedures for admission as a regular student include the satisfactory completion of a number of psychological tests, a health examination, and a speech examination. These tests are offered at the beginning of each quarter. Special arrangements to complete these admission requirements can be made at the Student Personnel Office, 206 Burton Hall, by teachers in service and others who are unable to attend during the regular class week.

SCHOLASTIC STANDARDS

An average of C+ in specified courses of the major field is required for admission to methods courses and practice teaching and for graduation. An average of C is required in secondary school teaching minors for all undergraduate students beginning their work for a degree after June 15, 1941. This also applies to the one regular minor required of students majoring in elementary education.

REQUESTS FOR SPECIAL OFFERINGS IN EXTENSION

The College of Education is desirous of meeting the needs of teachers, supervisors, and administrators in service. Whenever there are groups of about fifteen or more who desire a special extension course to cover an educational problem not now included in our offering, a formal request should be made to the dean of the University Extension, who will take up the matter with the College of Education. Such requests should be made early in any quarter or semester for inclusion during the subsequent term or during the fall quarter for inclusion the following Summer Session. All late evening and off-campus courses are extension courses. All campus late afternoon and Saturday morning courses are regular College of Education courses. A limited number of Graduate School courses can now be taken for credit in the Graduate School in extension in the Twin Cities area. See *Graduate School Bulletin* on this point.

ADDITIONAL COURSES

There are also some late afternoon and Saturday morning academic courses offered in the various teaching fields. Persons who desire to take work in any such department should get the necessary information by securing the bulletin entitled *Class Schedule for 1950-51*.

Additional courses in education, educational psychology, physical education, and other subject-matter areas are offered in the Extension Division. The announcement of the Extension Division will be sent by the Office of Admissions and Records on request without charge.

BUREAU OF RECOMMENDATIONS

Registration in the Bureau of Recommendations is *compulsory* in the first quarter of the senior year. Other students who have completed thirty quarter hours of work or alumni are eligible for registration for placement. The fee is \$4.50 per year of registration. The bureau receives requests for experienced persons for many important vacancies.

SUMMARY OF CLASS SCHEDULES

On page 15 will be found a summary of class schedules by quarters, days, and hours of offering. This will help to simplify the planning of programs for the year and quarters.

SYMBOLS

The following symbols and explanations are used throughout the bulletin:

* Course may be taken with consent of the instructor irrespective of prerequisites listed.

† To receive credit for this course, you must complete all courses listed after the †.

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

‡‡ One individual lesson per week, 2 credits, \$30; two individual lessons per week, 4 credits, \$60.

§ Credit is not given if the equivalent course listed after the § has been taken for credit.

¶ Not a part of the four-year curriculum.

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

§§ 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.

The small letter *f* after a course number indicates that the course is taught in the fall quarter; *w* indicates winter quarter; *s* indicates spring quarter.

PROGRAM OF COURSES

AGRICULTURAL EDUCATION

Persons interested in courses to be arranged by the Department of Agricultural Education should write directly to Head of the Department of Agricultural Education, 205 Horticulture Building, University Farm, St. Paul 1, Minn.

ART EDUCATION

- ArtEd.81w,s. Puppetry in Art Education Programs (3 cred.) IX-X MWF, Farnam
ArtEd.86f.‡ Teaching and Supervision of Art (4 cred.; †86-87-88; prereq. Ed.55B)
IX-X T, ar., 109J, Hastie
ArtEd.151w. Curriculum Building in Art Education (3 cred.) I-IV S, Hastie
ArtEd.156s. Intercultural Education through Art (3 cred.) IX-X Th, Baker
ArtEd.185s.‡ Advanced Course in the Teaching of Art in the Secondary School
(3 cred.; prereq. consent of instructor) I-IV S, Hastie
ArtEd.189f. Application of Esthetic Theory in Education (3 cred.; prereq. consent
of instructor) I-IV S, 109J, Hastie
ArtEd.295f,w,s. Problems in Art Education (Cred. ar.; prereq. consent of instruc-
tor) Ar.
ArtEd.296f,w,s. Seminar in Art Education (No cred.; prereq. consent of instruc-
tor) IX-X F, 106J, Staff

CURRICULUM AND INSTRUCTION

All courses under *Curriculum and Instruction* carry a fee of \$1.50 per credit.

- Ed.C.I.63f.‡ Children's Literature (2 cred.) IX-X M, 206WeH, Smith
Ed.C.I.102f.‡ Teaching of Social Studies in the Elementary School (3 cred.; prereq.
Ed.71C) I-II S and 1 hr. ar., 111Bu, Wesley
Ed.C.I.105f,w.‡ Visual Aids in Teaching (3 cred.; prereq. sr.) fall IX-X T,
101WeH, Wendt; winter III-IV S, 101WeH, Wendt
Ed.C.I.106w.‡ Coordinating a Visual Aids Program (3 cred.; prereq. 105) IX-X,
Th, Wendt
Ed.C.I.107w.‡ Radio in Education (3 cred.; prereq. 9 cred. in ed.) IX-X T, and
1 hr. ar., Tyler
Ed.C.I.109f,w.‡ Audio-Visual Materials and Equipment Laboratory (3 cred.;
prereq. 105 or concurrent registration) IX W and 2 hrs. lab. ar., 6WeH,
Wendt, Luce
Ed.C.I.113f,w.‡ High School Curriculum (3 cred.; prereq. Ed.55A-B) fall I-II S,
112Bu, Davies; winter III-IV S, Grim
Ed.C.I.119w.‡ Elementary School Curriculum (3 cred.; prereq. Ed.71C) III-IV S,
Cook
Ed.C.I.122s.‡ Literature for Adolescents (2 cred.; prereq. Ed.55B) I-II S, D. Smith
Ed.C.I.132s.‡ Teaching the Basic Business Subjects (3 cred.) IX-X W, Price
Ed.C.I.133f.‡ Consumer Education in Secondary Schools (3 cred.) I-II S, 107NH,
Price
Ed.C.I.134w.‡ Materials and Methods in Consumer Education (3 cred.; prereq. 133)
I-II S, Price

- Ed.C.I.136f.‡ Organization and Supervision of Distributive Education Programs (3 cred.; prereq. consent of instructor) IX-X W and 1 hr. ar., Meyer, 5ShH
- Ed.C.I.139w.‡ Coordination Techniques in Business Education (3 cred.; prereq. consent of instructor) IX-X Th and 1 hr. ar., Meyer
- Ed.C.I.141s.‡ Cooperative Part-time Distributive Education Classes (3 cred.; prereq. consent of instructor) IX-X Th and 1 hr. ar., Meyer
- Ed.C.I.143f.‡ Teaching and Supervision of Reading in the Elementary School (3 cred.; prereq. 9 hrs. in ed.) 4:30-6:30 W, 202WeH, Bond
- Ed.C.I.144w.‡ Teaching Reading in the Secondary Schools (3 cred.; prereq. 9 hrs. in ed.) 4:30-6:30 W, Bond
- Ed.C.I.149w.‡ The Teaching and Supervision of Arithmetic in the Elementary School (3 cred.; §62A, 62B; prereq. Ed.71C) III-IV S and 1 hr. ar., Brueckner
- Ed.C.I.150f.‡ Supervision and Improvement of Instruction (3 cred.; prereq. Ed.71C) III-IV S and 1 hr. ar., 207NH, Brueckner
- Ed.C.I.157f,w,s.‡ Practice in Supervision (3 cred.; prereq. consent of instructor) Ar., Brueckner
- Ed.C.I.171f.‡ Curriculum Laboratory Practice (2 to 6 cred.; prereq. *170A or B) Ar., Cook
- Ed.C.I.173As.‡ Organizing Units of Instruction in the Elementary School (3 cred.; prereq. 119 or teaching experience) III-IV S and 1 hr. ar., Cook
- Ed.C.I.181w.‡ Foundation of Elementary School Methods (3 cred.; prereq. 9 hrs. in ed.) IX-X M, Brueckner
- Ed.C.I.184f.‡ Supervision of Student Teaching (2 cred.; prereq. *10 hrs. ed.) I-II S, 202TNUH, Grim
- Ed.C.I.199Ef,w,s.‡ Internship (Cred. ar.) Ar., Grim
- Ed.C.I.201f,w,s.**‡ Problems in Teaching the Social Studies (3 cred.; prereq. consent of instructor) IX-X T, 112Bu, Wesley
- Ed.C.I.205f,w,s.**‡ Problems in Visual Education (Cred. ar.; prereq. 105, 106) Ar., Wendt
- Ed.C.I.207f,w,s.**‡ Problems in Radio Education (1 to 3 cred.; prereq. 107) Ar., Tyler
- Ed.C.I.215f,w,s.**‡ Problems in the School Health Education Program (Cred. ar.; prereq. consent of instructor) Ar., Grout
- Ed.C.I.216f,w,s.‡ Field Work in the School Health Education Program (Cred. ar.; prereq. consent of instructor) Ar., Grout
- Ed.C.I.217f,w,s.‡ Seminar in the School Health Education Program (Cred. ar.; prereq. consent of instructor) Ar., Grout
- Ed.C.I.225f,w,s.**‡ Special Problems in Supervision of Instruction in Secondary Schools (Cred. ar.) Ar., Boardman, Keller
- Ed.C.I.226f,w,s.‡ Seminar in Elementary School Problems (No cred.) IX-X Th, 206UHS, Bond, Brueckner, Cook
- Ed.C.I.228f,w,s.**‡ Problems of Higher Education and Teacher Training (Cred. ar.) Ar., Eckert, Grim
- Ed.C.I.238f,w,s.**‡ Problems in Distributive Education (Cred. ar.; prereq. consent of instructor) IX-X Th, 112Bu, Meyer
- Ed.C.I.239f,w,s.**‡ Problems in Business Education (Cred. ar.; prereq. consent of instructor) IX-X Th, 202TNUH, Price
- Ed.C.I.250w.‡ Higher Education in the United States (3 cred.; prereq. * 18 hrs. in ed.) I-II S and 1 hr. ar., Eckert
- Ed.C.I.261f,w,s.**‡ Special Problems in Improvement of Instruction (Cred. ar.; prereq. consent of instructor) Ar., Brueckner

- Ed.C.I.263w.**‡ Research in Arithmetic Instruction (3 cred.; prereq. 149) I-II S, Brueckner
- Ed.C.I.264s.**‡ Research in Educational Diagnosis (3 cred.; prereq. Ed.C.I.151) III-IV S, Brueckner
- Ed.C.I.265f,w,s.‡ Research in Supervision (Cred. ar.; prereq. consent of instructor) Ar., Brueckner
- Ed.C.I.271f,w,s.**‡ Problems in Curriculum Construction (3 to 9 cred.; prereq. consent of instructor) Ar., Cook
- Ed.C.I.273f,w,s.**‡ Problems in Reading (3 to 9 cred.; prereq. 143 or 144) Ar., Bond
- Ed.C.I.284f.‡ Problems in Student Teaching (Cred. ar.; prereq. consent of instructor) Ar., Grim
- Ed.C.I.285s.‡ Professional Education of Teachers (3 cred.; prereq. 15 hrs. in ed.) III-IV S and 1 hr. ar., Grim
- Ed.C.I.287f.‡ Advanced Course in the Teaching of Science (3 cred.) III-IV S, 5ShH, P. Johnson
- Ed.C.I.294f.**‡ Advanced Course in Methods of Teaching English (2 cred.; prereq. * Ed.T.66A-B-C) I-II S, 5ShH, D. Smith
- Ed.C.I.296f,w,s.**‡ Special Problems in Teaching English (Cred. ar.) Ar., D. Smith

EDUCATIONAL ADMINISTRATION

- Ed.Ad.115w. Organization of the Elementary School (3 cred.; prereq. 9 hrs. in ed.) I-II S, Neale
- Ed.Ad.167s. Junior High School (3 cred.; prereq. sr., 9 hrs. in ed.) III-IV S, Davies
- Ed.Ad.218f,w,s. Recent Literature in Secondary Education. (Cred. ar.) IX-X W, 111Bu, Boardman
- Ed.Ad.225f.** Pupil Personnel Administration (3 cred.; prereq. 124) I-II S, 103Bu, Neale
- Ed.Ad.226s.** School Plant Planning, Management (3 cred.; prereq. 227) I-II S, Neale
- Ed.Ad.228f,w,s.** Special Problems in Educational Administration (Cred. ar.; prereq. 225) Ar., Neale
- Ed.Ad.230f. Public Relations for Schools (3 cred.; prereq. 225) III-IV S, 103Bu, Neale
- Ed.Ad.235f,w,s. Seminar in Educational Administration. Ar., ar., ar., Neale
- Ed.Ad.270f,w,s.** Special Problems in Secondary Education (Cred. ar.) Ar., ar., ar. Boardman, Stout, Keller

EDUCATIONAL PSYCHOLOGY

- Ed.Psy.113f-114w-115s. Psychology of Elementary School Subjects (2 cred. per qtr.; prereq. 9 cred. in psy. and ed.) IX-X W, 103Bu, Van Wagenen
- Ed.Psy.150f,w,s.‡ Psychoeducational Clinic (Cred. ar.; prereq. 142 or Ed.C.I.145, consent of instructor) Fall ar., ar., Delp; winter ar., Delp; spring ar., ar., Bond
- Ed.Psy.182f. Education of Exceptional Children (3 cred.; prereq. Ed.55B or 71C) III-IV S, 101F, Delp
- Ed.Psy.183s. Education of Gifted Children (2 cred.; prereq. Ed.55B or 71C) 4:30-6:30 T, Bond
- Ed.Psy.220w-221s. Advanced Theory of Measurement (2 cred.; prereq. * Ed.Psy.60 and 216) IX-X T, Van Wagenen

- Ed.Psy.233f,w,s.** Problems in Guidance and Personnel Work (Cred. ar.; prereq. consent of instructor) Ar., ar., ar., Edwards, Wrenn, Dugan
- Ed.Psy.240f,w,s.** Problems in Measurement (3 cred.) Ar., ar., ar., P. Johnson
- Ed.Psy.243f,w,s. Problems in Statistics for Students in Education and Psychology (3 cred.) Ar., ar., ar., P. Johnson
- Ed.Psy.253f,w,s.** Research Problems (Ar.; prereq. consult instructor) Ar., ar., ar., Staff Ed. Psy.
- Ed.Psy.254s. Measurement and Evaluation in Higher Education (3 cred.) III-IV S and 1 hr. ar., P. Johnson
- Ed.Psy.281f,w,s. Practice in Personnel Work (Cred. ar.; prereq. *225, 226) Ar., Edwards, Wrenn
- Ed.Psy.282f,w,s. Practice in High School Personnel Work (3 cred.; prereq. *120, 133) Ar., ar., ar., Dugan

HISTORY AND PHILOSOPHY OF EDUCATION

- H.Ed.110w,s. Intercultural Education (3 cred.) winter I-II S, Cary; spring IX-X T, Cary
- H.Ed.131w. Comparative Education (3 cred.) IX-X W, Beck
- H.Ed.141f. Critical Issues in Contemporary Education (3 cred.) IX-X W, 206WeH, Beck
- H.Ed.178w. Education and Problems of American Democracy (3 cred.) IX-X T and 1 hr. ar., Cary
- H.Ed.179f. Critical Thinking for Teachers (3 cred.) IX-X M and 1 hr. ar., 112Bu, Cary
- H.Ed.182s. Comparative Philosophies of Education (3 cred.) IX-X W, Beck
- H.Ed.241f,w,s.** Problems in the History and Philosophy of Education (Cred. ar.; prereq. consent of instructor) Ar., ar., Cary, Beck, Alexander
- H.Ed.242s. Seminar in Educational Philosophy (3 cred.) IX-X M, Cary, Beck

HOME ECONOMICS EDUCATION

- H.E.Ed.193As. Home Economics Curriculum (2 or 3 cred.; prereq. * sr., consent of instructor) Secondary school level, IX-X W, Army, Rose
- H.E.Ed.194Bs. Adult Education in Home Economics (3 cred.; sr.; prereq. 194A) IX MF and 2 hrs. ar., Ford
- H.E.Ed.195s. Space, Equipment, Furnishings, Materials for Home Economics Departments (3 cred.; prereq. sr., 91, 93, H.E. 49) Ar., Rose, Kafka
- H.E.Ed.197f,w,s.‡ Organization and Methods for Related Art Teaching (1 to 3 cred.; prereq. sr., H.E.Ed.91, H.E.180 or parallel, consent of instructor) Ar., ar., Esteros
- H.E.Ed.199Ef,w,s.‡ Internship (Cred. ar.; grad.) Ar., ar., ar., Rose
- H.E.Ed.243f,w,s. Trends in Home Economics (3 cred.; prereq. consent of instructor) III-IV S, 114HE, Rose
- H.E.Ed.293f,w,s.** Problems in Home Economics Education (1 to 3 cred.; prereq. consent of instructor) Ar., ar., ar., Rose, Esteros, Army, Ford
- H.E.Ed.295f,w,s.** Seminar in Home Economics Education (1 to 3 cred.) IX Th, 114HE, Army, Rose, Esteros

INDUSTRIAL EDUCATION

- Ind.11f,w,s.‡¶ Special-Class Woodwork (2 cred.) I-IV S, 6Pt, La Berge
- Ind.40f. Analysis (2 cred.) IX-X W, 202TNUH, Micheels

- Ind.44s. Equipment and Management (3 cred.; prereq. 42) IX-X M, Widdowson
 Ind.60f. Philosophy of Vocational Education (2 cred.) IX-X M, 202TNUH, Widdowson
 Ind.61w. Practice in Vocational Education (2 cred.; prereq. Ind.60) IX-X M, Widdowson
 Ind.70s.‡ Teaching Industrial Subjects (3 cred.; prereq. Ind.42, Ed.55B) IX-X W, Micheels
 Ind.100f. Industrial Instruction (3 cred., §70; prereq. * grad.) III-IV S, 202TNUH, Smith
 Ind.102s. General Shop (2 cred.) III-IV S, Nelson
 Ind.103w. Instructional Aids (3 cred.; prereq. 70) III-IV S, Micheels
 Ind.107f.§ Coordination (3 cred.; prereq. 60, 61, or 105) IX-X T, 202TNUH, Widdowson
 Ind.125s. Philosophy, Practice of Industrial Education (3 cred., §61) IX-X T, Widdowson
 Ind.172s. Part-time Education (3 cred.; prereq. consent of instructor) IX-X F, Smith
 Off-Campus Courses and Services—Mr. Widdowson.
 Dunwoody Shop and Drawing Course—arranged. (Special blank must be used.)

MUSIC EDUCATION

- Mu.Ed.60f,w,s.‡ Supervision, Teaching of Music (3 cred., †60-61-62; prereq. sr., 50B, 53, Ed.55B, consent of instructor) IX-X W, 4ScH, Winslow
 Mu.Ed.61f,w,s.‡ Supervision, Teaching of Music (3 cred., †60-61-62; prereq. sr., 50B, 53, Ed.55B, consent of instructor) IX-X W, 4ScH, Winslow
 Mu.Ed.62f,w,s.‡ Supervision, Teaching of Music (3 cred., †60-61-62; prereq. sr., 50B, 53, Ed.55B, consent of instructor) IX-X W, 4ScH, Winslow
 Mu.Ed.224Ef,w,s. Seminar and Individual Research Problems in Music Education (2 to 6 cred.) Ar., Winslow, Ivory
 Mu.Ed.225Ef,w,s.‡‡ Advanced Applied Music (2 to 4 cred.; prereq. entrance examination) Ar.

PHYSICAL EDUCATION FOR MEN

- Phys.Ed.107w. Camp Administration (3 cred.; prereq. *54) IX-X W, Keller, staff
 Phys.Ed.141w. Hospital Recreation (3 cred.; prereq. consent of instructor) IX-X M, Fitzgerald
 Phys.Ed.247f,w,s.** Problems—Health Education (Cred. ar.) Nordly
 Phys.Ed.261f. Seminar—Contemporary Problems of Physical Education, Recreation (Cred. ar.) Fitzgerald

MAJOR ADVISERS

1950-51

Subject	Name of Instructor	Room
General Advisers	Jean H. Alexander, Chairman, Students' Work Committee.....	210aBu
	William H. Edson, Assistant Director, Student Personnel.....	206aBu
New Extension Courses	J. M. Nolte	152NH
 EDUCATIONAL FIELDS		
Agricultural Education	Milo J. Peterson	205Hort(StP)
Art Education	Clifton Gayne (on leave 1950-51) Reid Hastie	106J
	Mildred Page	106J
Business Education (Distributive and Office)	Ray G. Price	109TNUH
	Warren G. Meyer	107TNUH
Curriculum and Instruction	C. W. Boardman (Secondary).....	218Bu
	L. J. Brueckner (Elementary).....	205Bu
	W. W. Cook (Elementary)	207Bu
	Ruth E. Eckert (Higher)	203Bu
	Dora V. Smith (English)	201Bu
Educational Administration	C. W. Boardman (Secondary).....	218Bu
	M. G. Neale (General)	224Bu
Educational Psychology	W. W. Cook	207Bu
	Willis E. Dugan	217Bu
	Guy L. Bond	212Bu
	P. O. Johnson	216Bu
	Marcia Edwards	202bBu
	M. J. Van Wagenen	351Psy
	C. Gilbert Wrenn	109Bu
Health Education	Ruth Grout	121MH
Elementary Education	Jean H. Alexander	210aBu
	Guy L. Bond	212Bu
	L. J. Brueckner	205Bu
	W. W. Cook	207Bu
History and Philosophy of Education	Jean H. Alexander (History)	210aBu
	Robert Beck (Philosophy)	215Bu
	Miles E. Cary (Philosophy).....	215Bu
Home Economics Education	Clara Brown Army	202HE(StP)
	Ella J. Rose	115HE(StP)
Industrial Education	William J. Micheels	105TNUH
	Homer J. Smith	101TNUH
Library Training	Irene Hayner	6Lib
	Errett W. McDiarmid	107Lib
Methods and Directed Teaching	Paul R. Grim	210cBu
Music Education	Paul M. Oberg	106ScH
	Robert W. Winslow	213ScH
	Paul Ivory	214ScH
Nursery School and Kindergarten Education	John Anderson	101Pt
	Elizabeth Meechem Fuller	2aCWI
Nursing Education	Katharine J. Densford	125MeS
Physical Education for Men	Louis F. Keller	220bCH
	Carl L. Nordly	217CH
	Ralph Piper	219CH

Subject	Name of Instructor	Room
Physical Education for Women	Gertrude Baker	104NGW
Public Health Nursing	Margaret S. Taylor	121MH
Radio Education	T. F. Tyler	111NMA
Recreational Leadership	G. B. Fitzgerald	221CH
Visual Education	Paul Wendt	3WeH

SUBJECT-MATTER FIELDS

Botany	See Natural Science	
Chemistry	See Natural Science	
Economics	E. A. Heilman	313VH
English	Harold B. Allen	317F
	Dora V. Smith	201Bu
Geography	John Borchert	ForH
German	F. H. Wood	210F
History	A. C. Krey	ForH
	John Bowditch	ForH
Journalism	Fred L. Kildow	106MurH
Latin	Norman J. DeWitt	118F
Mathematics	William L. Hart	119F
Natural Science	P. O. Johnson	216Bu
	Clarence Boeck	11UHS
Physics	See Natural Science	
Political Science	George Warp	364ForH
Public Health	Ruth Boynton	HS
Romance Languages	R. L. Grismer	319F
	H. E. Clefton	200aF
	Walter T. Pattison (on leave 1950-51)	
Scandinavian	Alrik Gustafson	13F
Social Studies	Edgar B. Wesley	226Bu
Sociology	Douglas Marshall	ForH
Speech	Howard Gilkinson	309bF
	Donald Smith	401F
	Kenneth Graham	10ScH
Speech Pathology	B. Bryngelson	410F
Zoology	See Natural Science	

COMPLETE SUMMARY OF CLASS SCHEDULES

Saturday I-II	Saturday III-IV	Monday IX-X	Tuesday IX-X	Wednesday IX-X	Thursday IX-X	Friday IX-X
FALL						
ArtEd.189§ Ed.C.I.102 Ed.C.I.113 Ed.C.I.133 Ed.C.I.184 Ed.C.I.294 Ed.Ad.225 Ind.11§	ArtEd.189 Ed.C.I.150 Ed.C.I.287 Ed.Ad.230 Ed.Psy.182 H.E.Ed.243 Ind.100	Ed.C.I.63 H.Ed.179 Ind.60	ArtEd.86 Ed.C.I.105 Ed.C.I.201 Ind.107	Ed.C.I.109* Ed.C.I.136 Ed.C.I.143 Ed.Ad.218 Ed.Psy.113 H.Ed.141 Ind.40 Mu.Ed.60 Mu.Ed.61 Mu.Ed.62	Ed.C.I.226 Ed.C.I.238 Ed.C.I.239 H.E.Ed.295*	ArtEd.296
WINTER						
ArtEd.151§ Ed.C.I.134 Ed.C.I.250 Ed.C.I.263 Ed.Ad.115 H.Ed.110 Ind.11§	ArtEd.151 Ed.C.I.105 Ed.C.I.113 Ed.C.I.119 Ed.C.I.149 H.E.Ed.243 Ind.103	ArtEd.81 Ed.C.I.181 Ind.61 Phys.Ed.141	Ed.C.I.107 Ed.C.I.201 Ed.Psy.220 H.Ed.178	ArtEd.81 Ed.C.I.109* Ed.C.I.144 Ed.Ad.218 Ed.Psy.114 H.Ed.131 Mu.Ed.60 Mu.Ed.61 Mu.Ed.62 P.E.107	Ed.C.I.106 Ed.C.I.139 Ed.C.I.226 Ed.C.I.238 Ed.C.I.239 H.E.Ed.295*	ArtEd.81 ArtEd.296
SPRING						
ArtEd.185§ Ed.C.I.122 Ed.Ad.226 Ind.11§	Ed.C.I.173A Ed.C.I.264 Ed.C.I.285 Ed.Psy.254 Ed.Ad.167 H.E.Ed.243 Ind.102	ArtEd.81 H.Ed.242 H.E.Ed.194B* Ind.44	Ed.C.I.201 Ed.Psy.183 Ed.Psy.221 H.Ed.110 Ind.125	ArtEd.81 Ed.C.I.132 Ed.Ad.218 Ed.Psy.115 H.Ed.182 H.E.Ed.193A Ind.70 Mu.Ed.60 Mu.Ed.61 Mu.Ed.62	ArtEd.156 Ed.C.I.141 Ed.C.I.226 Ed.C.I.238 Ed.C.I.239 H.E.Ed.295*	ArtEd.81 ArtEd.296 H.E.Ed.194B* Ind.172

* Meets IX hour only.

§ Meets I-IV hour.

The Bulletin of the
UNIVERSITY of MINNESOTA

The College of Education Announcement
of Late Afternoon and Saturday Morning Classes
1951-1952



Volume LIV, Number 40

August 7, 1951

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UNIVERSITY CALENDAR, 1951-1952

DAY CLASSES

Fall Quarter

1951			Fall registration. ¹ Orientation program for new students. Dates for the various colleges will be announced in the press and in mailed instructions. Students are urged to register early. It is expected that all students who can do so will register in August
August 6-September 28			
September	3	Monday	Labor Day; holiday
September	20	Thursday	Fall quarter fees due for students registered through September 14
September	24-28		New Students' Week; program of orientation. Details will be announced in instructions issued at registration. All new students are expected to attend
September	28	Friday	Last day for registration ¹ and payment of fees for the undergraduate colleges
October	1	Monday	Fall quarter classes begin 8:30 a.m. ²
October	4	Thursday	Opening convocation, 11:30 a.m.; IV hour classes excused
October	5	Friday	Last day for registration and payment of fees for the Graduate School, and for teachers in service
October	12	Friday	Columbus Day; holiday
October	20	Saturday	Homecoming Day
November	8	Thursday	Senate meeting, 3:00 p.m.
November	10	Saturday	Dads Football Game
November	12	Monday	(Sunday, November 11, Armistice Day); holiday
November	22	Thursday	Thanksgiving Day; holiday
November	23, 24	Friday, Saturday	Classes excused
December 14, 15 and 17-20			Final examination period
December	20	Thursday	Commencement, 8:00 p.m.
December	22	Saturday	Fall quarter closes

Winter Quarter

December	25	Tuesday	Christmas Day; holiday
December	27	Thursday	Winter quarter fees due for students in residence fall quarter in undergraduate colleges
1952			
January	1	Tuesday	New Year's Day; holiday
January	3, 4	Thursday, Friday	Orientation program; registration ¹ and payment of fees for new students in all undergraduate colleges
January	7	Monday	Winter quarter classes begin 8:30 a.m. ²
January	11	Friday	Last day for registration and payment of fees for the Graduate School, and for teachers in service

UNIVERSITY CALENDAR, 1951-1952

February	12	Tuesday	Lincoln's Birthday; holiday
February	21	Thursday	Senate meeting, 3:00 p.m.
February	22	Friday	Washington's Birthday; holiday
February 24-March 1			University of Minnesota Week
February	28	Thursday	Charter Day Convocation, 11:30 a.m.; IV hour classes excused
March 14, 15 and 17-20			Final examination period
March	20	Thursday	Spring quarter fees due for students in residence winter quarter in undergraduate colleges. Commencement, 8:00 p.m.
March	22	Saturday	Winter quarter closes

Spring Quarter

March	27, 28	Thursday, Friday	Orientation program; registration ¹ and payment of fees for new students in all undergraduate colleges
March	31	Monday	Spring quarter classes begin 8:30 a.m. ²
April	4	Friday	Last day for registration and payment of fees for the Graduate School, and for teachers in service
April	11	Friday	Good Friday; holiday
May	8	Thursday	Parents Day
May	15	Thursday	Senate meeting, 3:00 p.m.
May	22	Thursday	Cap and Gown Day Convocation, 11:30 a.m.; IV hour classes excused
May	30	Friday	Memorial Day; holiday
June 7 and 9-13			Final examination period
June	8	Sunday	Baccalaureate service, 3:00 p.m.
June	14	Saturday	Spring quarter closes. Commencement, 8:00 p.m.

Summer Session

June	16, 17	Monday, Tuesday	Registration ¹ for new students not already registered. First term fees due for students in all colleges
June	18	Wednesday	First term Summer Session classes begin 8:30 a.m. ²
July	4	Friday	Independence Day; holiday
July	24	Thursday	Commencement, 8:00 p.m.
July	26	Saturday	First term closes
July	28	Monday	Registration ¹ for new students not already registered. Second term fees due for students in all colleges
July	29	Tuesday	Second term classes begin 8:30 a.m. ²
August	28	Thursday	Commencement, 8:00 p.m.
August	30	Saturday	Second term closes

¹ Registration subsequent to the date specified will necessitate the approval of the college concerned. Privilege fees for late registration or late payment of fees are charged.

² First hour classes begin at 8:00 a.m. on St. Paul Campus.

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(University of Minnesota Telephone—Main 8158)

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Arnold Woestehoff, Director, Bureau of Recommendations.....	102Bu

See list of major advisers on pages 14 and 15.

GENERAL INFORMATION

The following program of late afternoon and Saturday classes is arranged by the College of Education for teachers in service. Many of the offerings are subjects required in the regular curricula for high school and elementary teachers, or in the specialized curricula. All courses numbered 100 or above may apply toward advanced degrees if approved by advisers as part of the graduate program. Students expecting to qualify for a degree should secure a copy of the *College of Education Bulletin* which contains a statement of general requirements for graduation and lists required courses in majors and minors and in the specialized curricula. Attention is called to the fact that courses are offered for the M.A. and the Ph.D. degrees in the Graduate School and also in many fields for the M.Ed. in the College of Education. The M.Ed. degree is offered in all special subject teaching fields such as physical education, art education, music education, home economics education, agricultural education, recreation leadership, and also in elementary education, rural education, English, science, and social studies. Students should consult a major adviser as early in their program as possible. Failure to do so often delays graduation and makes extra work necessary. Graduate students should consult the *Bulletin of the Graduate School*.

Bulletin changes and room schedules will be posted each quarter on the official bulletin board outside the door of Room 206 Burton Hall.

The fee for part-time registration in the College of Education is \$2.75 per credit for residents of the state and \$8.50 per credit for nonresidents. Other fees include special course fees and a \$5 deposit in all colleges except Graduate School where it is \$3. If six or more credits are taken, an incidental fee of \$15.85 is also required. Auditors pay the same fees as students registered for credit.

Telephone requests for information about College of Education matters should be made to Main 8158, Ext. 6703.

REGISTRATION

Teachers in service may register from Monday through Friday of the first week of the quarter, if it is *impossible* for them to come in during the regular pre-registration period. Registration materials should be secured from the Office of Admissions and Records.

ADMISSION TO DEGREE PROGRAM

A teacher in service or other person who plans to proceed with a program of study leading to the B.S. degree in education should apply for admission to the College of Education as a regular student during the first quarter in which he or she registers for six or more credits in regular classes. Application for such admission should be made through the Office of Admissions and Records in the Administration Building of the University. Procedures for admission as a regular student include the satisfactory completion of a number of psychological tests, a health examination, and a speech examination. These tests are offered at the beginning of each quarter. Special arrangements to complete these admission requirements can be made at the Student Personnel Office, 206 Burton Hall, by teachers in service and others who are unable to attend during the regular class week.

SCHOLASTIC STANDARDS

An average of C+ in specified courses of the major field is required for admission to methods courses and practice teaching and for graduation. An average of C is required in secondary school teaching minors for all undergraduate students beginning their work for a degree after June 15, 1941. This also applies to the one regular minor required of students majoring in elementary education.

REQUESTS FOR SPECIAL OFFERINGS IN EXTENSION

The College of Education is desirous of meeting the needs of teachers, supervisors, and administrators in service. Whenever there are groups of about fifteen or more who desire a special extension course to cover an educational problem not now included in our offering, a formal request should be made to the dean of the University Extension, who will take up the matter with the College of Education. Such requests should be made early in any quarter or semester for inclusion during the subsequent term or during the fall quarter for inclusion the following Summer Session. All late evening and off-campus courses are extension courses. All campus late afternoon and Saturday morning courses are regular College of Education courses. A limited number of Graduate School courses can now be taken for credit in the Graduate School in extension in the Twin Cities area. See *Graduate School Bulletin* on this point.

ADDITIONAL COURSES

There are also some late afternoon and Saturday morning academic courses offered in the various teaching fields. Persons who desire to take work in any such department should get the necessary information by securing the bulletin entitled *Class Schedule* for 1951-52.

Additional courses in education, educational psychology, physical education, and other subject-matter areas are offered in the Extension Division. The announcement of the Extension Division will be sent by the Office of Admissions and Records on request without charge.

BUREAU OF RECOMMENDATIONS

Registration in the Bureau of Recommendations is *compulsory* in the first quarter of the senior year. Other students who have completed thirty quarter hours of work or alumni are eligible for registration for placement. The fee is \$5.50 per year of registration. The bureau receives requests for experienced persons for many important vacancies.

SUMMARY OF CLASS SCHEDULES

On page 16 will be found a summary of class schedules by quarters, days, and hours of offering. This will help to simplify the planning of programs for the year and quarters.

PROGRAM OF COURSES

SYMBOLS

The following symbols and explanations are used throughout the bulletin:

- * Course may be taken with consent of the instructor irrespective of prerequisites listed.
 - † To receive credit for this course, you must complete all courses listed after the †.
 - ‡ A fee of \$2 per credit is charged for this course.
 - ‡‡ One individual lesson per week, 2 credits, \$30; two individual lessons per week, 4 credits, \$60.
 - § Credit is not given if the equivalent course listed after the § has been taken for credit.
 - ¶ Not a part of the four-year curriculum.
 - ** This course may be taken for independent study under Plan B for the Master's degree.
 - §§ 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.
- The small letter *f* after a course number indicates fall quarter; *w* indicates winter quarter; *s* indicates spring quarter.

AGRICULTURAL EDUCATION (AGED)

Persons interested in courses to be arranged by the Department of Agricultural Education should write directly to Head of the Department of Agricultural Education, 205 Horticulture Building, University Farm, St. Paul 1, Minn.

ART EDUCATION (ARED)

Fall Quarter, 1951

- 189 Application of Esthetic Theory in Education (3 cred.) III-IV S, 109J, Hastie
- 295 Problems in Art Education (Cred. ar.; prereq. consent of major adviser) Ar., Gayne
- 296 Seminar in Art Education (No cred.) IX Th, 106J, Gayne, Staff

Winter Quarter, 1952

- 151 Curriculum Building in Art Education (3 cred.) III-IV S, Ar., Hastie
- 284 Research in Art Education (2 cred.) IX Th and 1 hr. ar., Ar., Gayne
- 295 See 295f
- 296 See 296f

Spring Quarter, 1952

- 81 Puppetry in Art Education Programs (3 cred.) IX-X MWF, Ar., Page
- 84 Teaching Art in the Elementary School (3 cred.; prereq. *17-18) I-II S, Ar., Gayne
- 156 Intercultural Education through Art (3 cred.) IX-X Th, Ar., Gayne
- 295 See 295f

CURRICULUM AND INSTRUCTION (EDCI)

Fall Quarter, 1951

- 63‡ Children's Literature (2 cred.) IX-X M, 202WeH, D. V. Smith
- 102‡ Teaching of Social Studies in the Elementary School (3 cred.; prereq. Ed.71C) I-II S and 1 hr. ar., 207NH, Winner
- 105‡ Visual Materials in Education (3 cred.; prereq. sr.) IX-X M, 213NH, Ar.
- 107‡ Radio in Education (2 cred.; prereq. 9 hrs. in ed.) IX-X Th, 302MurH, Tyler

- 109‡ Audio-Visual Materials and Equipment Laboratory (3 cred.; prereq. *105 or concurrent registration) IX W and 2 hrs. lab. ar., 206WeH, Ar.
- 113‡ High School Curriculum (3 cred.; prereq. *Ed.55A-B) I-II S, 112Bu, Ar.
- 131‡ Advanced Course in Teaching the Technical Business Subjects (3 cred.; prereq. consent of instructor) IX-X Th, 5ShH, Price
- 133‡ Consumer Education in Secondary Schools (3 cred.) I-II S, 202Pt, Price
- 136‡ Organization and Supervision of Distributive Education Programs (3 cred.; prereq. consent of instructor) IX-X T and 1 hr. ar., 5ShH, Meyer
- 143‡ Teaching and Supervision of Reading in the Elementary Schools (3 cred.; prereq. 9 hrs. in ed.) I-II S, 213NH, Bond
- 145‡ Remedial Reading (3 cred.; prereq. recent course in reading or basic training in counseling or school psychological work) IX-X T, 202Pt, Bond
- 153‡ Supervision and Teaching of English in the Elementary Schools (3 cred.; prereq. Ed.71C or equiv.) III-IV S, 111Bu, Archer
- 168‡ Current Developments in the Social Studies (2 cred.; prereq. grad.) III-IV S, 207NH, McCune
- 170B‡ Curriculum and Course of Study Construction (3 cred.; prereq. *113, 119 or 170) IX-X T, 111Bu, Ar.
- 181‡ Foundations of Elementary School Methods (3 cred.; prereq. 9 hrs. in ed.) IX-X M, 112Bu, Brueckner
- 184‡ Supervision of Student Teaching (3 cred.; prereq. *15 hrs. in ed.) I-II S, 111Bu, Grim
- 199E‡ Internship (Cred. ar.) Ar., Grim
- 201**‡ Problems in Teaching the Social Studies (3 cred.; prereq. consent of instructor) Ar., McCune, Morse, West
- 205**‡ Problems in Visual Education (Cred. ar.; prereq. *105, 106) Ar., Ar.
- 207**‡ Problems in Radio Education (1 to 3 cred.; prereq. 107) Ar., Tyler
- 215**‡ Problems in School Health Education Program (Cred. ar.; prereq. consent of instructor) Ar., Grout
- 216‡ Field Work in School Health Education Program (Cred. ar.; prereq. consent of instructor) Ar., Grout
- 217‡ Seminar in School Health Education Program (Cred. ar.; prereq. consent of instructor) Ar., Grout
- 222‡ Seminar in Current Problems in the Techniques of High School Instruction (Cred. ar.; prereq. 113, Ed.51B or equiv.) IX-X W, 111Bu, Ar., D. V. Smith
- 225**‡ Special Problems in Supervision of Instruction in Secondary Schools (Cred. ar.; prereq. consent of instructor) IX-X W, 111Bu, Boardman, Stout
- 226‡ Seminar in Elementary School Problems (No cred.) IX-X Th, 206UHS, Archer, Bond, Brueckner, Cook, Goossen
- 227**‡ Problems in Rural Education (Cred. ar.; prereq. 117) Ar., Archer
- 228**‡ Problems of Higher Education and Teacher Training (Cred. ar.) Ar., Grim, Eckert
- 238**‡ Problems in Distributive Education (Cred. ar.; prereq. consent of instructor) Ar., Meyer
- 239**‡ Problems in Business Education (Cred. ar.; prereq. consent of instructor) Ar., Price
- 261**‡ Special Problems in Improvement of Instruction (Cred. ar.; prereq. consent of instructor) Ar., Brueckner
- 271**‡ Problems in Curriculum Construction (3-9 cred.; prereq. consent of instructor) Ar., Bossing, Cook, Birkmaier, Goossen, D. Johnson
- 273**‡ Problems in Reading (3-9 cred.; prereq. *143 or 144) Ar., Bond
- 284**‡ Problems in Student Teaching (Cred. ar.; prereq. consent of instructor) Ar., Grim

- 287**‡ Advanced Course in the Teaching of Science (3 cred.) III-IV S and 1 hr. ar., 5ShH, P. O. Johnson
 294**‡ Advanced Course in Methods of Teaching English (2 cred.; prereq. *Ed.T.66A-B-C or 75A-B-C) I-II S, 5ShH, D. V. Smith
 296**‡ Special Problems in Teaching English (Cred. ar.) Ar., D. V. Smith

Winter Quarter, 1952

- 105‡ Visual Materials in Education (3 cred.; prereq. sr.) III-IV S and 1 hr. ar., Ar.
 106‡ Coordinating a Visual Education Program (3 cred.; prereq. *105) IX-X Th, Ar.
 108‡ Radio in Education (2 cred.; prereq. 107) IX-X Th, Ar., Tyler
 109‡ Audio-Visual Materials and Equipment Laboratory (3 cred.; prereq. *105 or concurrent registration) IX W and 2 hrs. lab. ar., Ar.
 113‡ High School Curriculum (3 cred.; prereq. *Ed.55A-B) III-IV S, Ar.
 117‡ Rural Education for Administrators and Teachers (3 cred.; prereq. consent of instructor) I-II S, Archer
 119‡ Elementary School Curriculum (3 cred.; prereq. Ed.71C) I-II S, Goossen
 134‡ Materials and Methods in Consumer Education (3 cred.; prereq. *133) I-II S, Price
 139‡ Coordination Techniques in Business Education (3 cred.; prereq. consent of instructor) IX-X W, Meyer
 144‡ Teaching Reading in the Secondary Schools (3 cred.; prereq. 9 hrs. in ed.) I-II S, Bond
 150‡ Supervision and Improvement of Instruction (3 cred.; prereq. Ed.71C) III-IV S, Brueckner
 156‡ Trends in Business Education (3 cred.) IX-X Th, Price
 173B‡ Organizing Units of Instruction in the Secondary School (3 cred.; prereq. *113) IX-X T, Ar.
 199E‡ See 199Ef
 201**‡ See 201f
 204‡ Social Studies Curriculum (3 cred.) I-II S, McCune
 205**‡ See 205f
 207**‡ See 207f
 215**‡ See 215f
 216‡ See 216f
 217‡ See 217f
 222‡ See 222f
 225**‡ See 225f
 226‡ See 226f
 227**‡ See 227f
 228**‡ See 228f
 238**‡ See 238f
 239**‡ See 239f
 261**‡ See 261f
 264**‡ Research in Educational Diagnosis (3 cred.; prereq. 151) IX-X M, Brueckner
 271**‡ See 271f
 273**‡ See 273f
 284**‡ See 284f
 285‡ Professional Education of Teachers (3 cred.; prereq. *15 hrs. in ed.) III-IV S, Grim
 296**‡ See 296f

Spring Quarter, 1952

- 63‡ Children's Literature (2 cred.) I-II S, Ar.
 122‡ Literature for Adolescents (2 cred.; prereq. *Ed.55B) I-II S, D. V. Smith
 141‡ Cooperative Part-time Distributive Education Classes (3 cred.; prereq. consent of instructor) IX-X W, Meyer
 149‡ The Teaching and Supervision of Arithmetic in the Elementary School (3 cred.; §62A,62B; prereq. Ed.71C) III-IV S, Brueckner

- 151‡ Diagnosis and Treatment of Learning Difficulties (3 cred.; prereq. 150 or basic training in counseling or school psychological work) IX-X W, Brueckner
- 153‡ See 153f
- 157‡ Practice in Supervision (3 cred.; prereq. consent of instructor) Ar., Brueckner
- 161‡ Curriculum Construction in Business Education (3 cred.; prereq. 113 or consent of instructor) IX-X Th, Price
- 173A‡ Organizing Units of Instruction in the Elementary School (3 cred.; prereq. 119 or teaching experience) III-IV S, and 1 hr. ar., Cook
- 199E‡ See 199Ef
- 201**‡ See 201f
- 205**‡ See 205f
- 207**‡ See 207f
- 215**‡ See 215f
- 216‡ See 216f
- 217‡ See 217f
- 222‡ See 222f
- 225**‡ See 225f
- 226‡ See 226f
- 227**‡ See 227f
- 228**‡ See 228f
- 238**‡ See 238f
- 239**‡ See 239f
- 250‡ Higher Education in the United States (3 cred.; prereq. *18 hrs. in ed.) I-II S, Eckert
- 254‡ Supervision of the Social Studies (3 cred.) III-IV S, McCune
- 261**‡ See 261f
- 271**‡ See 271f
- 284**‡ See 284f
- 286‡ Professional Education of Teachers (3 cred.; prereq. *Ed.C.I. 285) III-IV S, Grim
- 296**‡ See 296f

EDUCATIONAL ADMINISTRATION (EDAD)

Fall Quarter, 1951

- 133 Basic Procedures in Student Personnel Work (3 cred.; prereq. 9 hrs. in ed.) III-IV S and 1 hr. ar., BuAud, Dugan
- 218 Recent Literature in Secondary Education (Cred. ar.) IX-X W, 111Bu, Boardman, Stout
- 228** Special Problems in Educational Administration (Cred. ar.; prereq. 225) Ar., Neale
- 230 Public Relations for Schools (3 cred.; prereq. 225) III-IV S, 113JohH, Ar.
- 235 Seminar in Educational Administration (No cred.) Ar., Neale
- 253 Administration in Higher Education (3 cred.; prereq. consent of instructor) IX-X M and 1 hr. ar., 111Bu, Neale
- 270** Special Problems in Secondary Education (Cred. ar.) Ar., Boardman, Keller, Stout

Winter Quarter, 1952

- 115 Organization of the Elementary School (3 cred.; prereq. 9 hrs. in ed.) III-IV S, Ar.
- 218 See 218f
- 228** See 228f
- 235 See 235f
- 270** See 270f
- 290 Financing Higher Education (3 cred.; prereq. consent of instructor) IX-X M, Neale

Spring Quarter, 1952

- 218 See 218f
- 226** School Plant Planning and Management (3 cred.; prereq. 227) I-II S, Neale
- 228** See 228f
- 235 See 235f
- 270** See 270f

EDUCATIONAL PSYCHOLOGY (EDPSY)

Fall Quarter, 1951

- 113 Psychology of Elementary School Subjects (2 cred.; prereq. 9 hrs. in psy. and ed.) IX-X W, 109Psy, Van Wagenen
133 Basic Procedures in Student Personnel Work (3 cred.; prereq. 9 hrs. in ed.) III-IV S, and 1 hr. ar., BuAud, Dugan
150 Psycho-Educational Clinic (3 cred.; prereq. *142 or Ed.C.I. 145) Ar., Bond
182 Education of Exceptional Children (3 cred.; prereq. Ed.55B or 71C) III-IV S, 202Pt, Ar.
233** Problems in Guidance and Personnel Work (Cred. ar.; prereq. consent of instructor) Ar., Dugan, Edwards, Wrenn
240** Problems in Measurement (3 cred.) Ar., P. O. Johnson
243 Problems in Statistics for Students in Education and Psychology (3 cred.) Ar., P. O. Johnson
253** Research Problems (Cred. ar.; prereq. consent of instructor) Ar., Staff
281 Practice in Personnel Work (Cred. ar.; prereq. *225, 226) Ar., Edwards, Wrenn
282 Practice in High School Personnel Work (3 cred.; prereq. *133, 120) Ar., Dugan
292 Recent Literature in Educational Psychology (3 cred.; prereq. consent of instructor) Ar., Borow

Winter Quarter, 1952

- 114 See 113f
150 Psycho-Educational Clinic (3 cred.; prereq. *142 or Ed.C.I.145) Ar., Bond
220 Advanced Theory of Measurement (2 cred.; prereq. *60 or 120, 216) IX-X T, Ar., Van Wagenen
233** See 233f
240** See 240f
243 See 243f
- | | |
|----------------|----------------|
| 253** See 253f | 253** See 253f |
| 281 See 281f | 281 See 281f |
| 282 See 282f | 282 See 282f |

Spring Quarter, 1952

- 115 See 113f
142 Individual Mental Testing (3 cred.; prereq. sr., 120) I-II S and 1 hr. ar., Ar., Ar.
150 See 150f
221 See 220w
233** See 233f
240** See 240f
243 See 243f
- | | |
|--|--|
| 253** See 253f | 253** See 253f |
| 254 Measurement and Evaluation in Higher Education (3 cred.) III-IV S, P. O. Johnson | 254 Measurement and Evaluation in Higher Education (3 cred.) III-IV S, P. O. Johnson |
| 281 See 281f | 281 See 281f |
| 282 See 282f | 282 See 282f |
| 292 See 292f | 292 See 292f |

HISTORY AND PHILOSOPHY OF EDUCATION (HED)

Fall Quarter, 1951

- 141 Critical Issues in Contemporary Education (3 cred.) IX-X T, 202WeH, Beck
179 Critical Thinking for Teachers (3 cred.) IX-X M, 5ShH, Cary
241** Problems in the History and Philosophy of Education (Cred. ar.; prereq. consent of instructor) Ar., Ar., Cary, Beck, Alexander

Winter Quarter, 1952

- 110 Intercultural Education (3 cred.) I-II S, Ar., Cary
- 131 Comparative Education (3 cred.) IX-X T, Ar., Beck
- 178 Education and Problems of American Democracy (3 cred.) IX-X M, Ar., Cary
- 241** See 241f

Spring Quarter, 1952

- 110 Intercultural Education (3 cred.) IX-X M, Ar., Cary
- 182 Comparative Philosophies of Education (3 cred.) IX-X T, Ar., Beck
- 241** See 241f

HOME ECONOMICS EDUCATION (HEED)

Fall Quarter, 1951

- 197‡ Organization and Methods of Related Art Teaching (1-3 cred.; prereq. *sr., 91, H.E.180 or concurrent registration) Ar., Ar., Esteros
- 199E‡ Internship (Cred. ar.; prereq. consent of instructor) Ar., Ar., Rose
- 243 Trends in Home Economics (3 cred.; prereq. consent of instructor) III-IV S, 114HE, Rose
- 293** Problems in Home Economics Education (1-3 cred.; prereq. consent of instructor) Ar., Ar., Rose, Esteros, Arny, Ford
- 295** Seminar in Home Economics Education (1 cred.) IX Th, 114HE, Arny, Rose, Esteros

Winter Quarter, 1952

- 197‡ See 197f
- 199E‡ See 199Ef
- 243 See 243f
- 293** See 293f
- 295** See 295f

Spring Quarter, 1952

- 193A Home Economics Curriculum (3 cred.; prereq. *sr., 94) IX-X W, Arny, Rose
- 194B Adult Education in Home Economics (3 cred.; prereq. 194A) IX MF and 2 hrs. ar., Ar., Ford
- 195 Space, Equipment, Furnishings, and Materials for Home Economics Departments (3 cred.; prereq. sr., 91, 93, H.E.49) Ar., Ar., Rose, Kafka
- 197‡ See 197f
- 199E‡ See 199Ef
- 243 See 243f
- 293** See 293f
- 295** See 295f

INDUSTRIAL EDUCATION (IND)

Fall Quarter, 1951

- 40 Analysis (2 cred.) IX-X W, 202TNUH, Micheels
- 60 Philosophy of Vocational Education (2 cred.) IX-X M, 202TNUH, Widdowson
- 80 Introduction to Industrial Arts (2 cred.) IX-X F, 202TNUH, Micheels
- 100 Industrial Instruction (3 cred.; §70; prereq. 42, Ed.55B) IX-X Th, 202TNUH, Smith
- 107 Coordination (3 cred.; prereq. *60, 61, or 125) IX-X T, 202TNUH, Widdowson

Winter Quarter, 1952

- 42 Course Organization (3 cred.; prereq. 40) IX-X W, Ar., Micheels
- 61 Practices in Vocational Education (2 cred.; prereq. 60) IX-X M, Ar., Widdowson
- 102 The General Shop (2 cred.; prereq. 80) IX-X F, Ar., Micheels

Spring Quarter, 1952

- 40 See 40f
- 44 Equipment Management (3 cred.; prereq. 42) IX-X M, Ar., Widdowson
- 70 Teaching of Industrial Subjects (3 cred.; prereq. 42, Ed. 55B) IX-X F, Ar., Micheels

MUSIC EDUCATION (MUED)

Fall Quarter, 1951

- 60 Supervision and Teaching of Music (3 cred.; †60-61-62; prereq. sr., 50B, Ed.55B, consent of instructor) IX-X W and 6 hrs. ar., 4ScH, Winslow
- 61 Supervision and Teaching of Music (3 cred.; †60-61-62; prereq. sr., 50B, Ed.55B, consent of instructor) IX-X W and 6 hrs. ar., 4ScH, Winslow
- 62 Supervision and Teaching of Music (3 cred.; †60-61-62; prereq. sr., 50B, Ed.55B, consent of instructor) IX-X W and 6 hrs. ar., 4ScH, Winslow
- 224E Seminar and Individual Research Problems in Music Education (2-6 cred.) Ar., 213ScH, Winslow and others
- 225E Advanced Applied Music (2-4 cred.) Ar., Ar., Ar.

Winter Quarter, 1952

- 60 See 60f
- 61 See 61f
- 62 See 62f
- 224E See 224Ef
- 225E See 225Ef

Spring Quarter, 1952

- 60 See 60f
- 61 See 61f
- 62 See 62f
- 224E See 224Ef
- 225E See 225Ef

PHYSICAL EDUCATION (PE)

Fall Quarter, 1951

- 118E Problems in Teacher Education in Health, Physical Education, and Recreation (Cred. ar.; prereq. consent of department adviser) Ar., Ar., Baker, Ericson, Wilson
- 224 Research Problems in School Health Education and Physical Education for Women (Cred. ar.; prereq. consent of department adviser) Ar., Ar., Baker, Ericson, Wilson
- 247** Problems in Physical Education and Recreation (Cr. ar.) Ar., CH, Nordly

Winter Quarter, 1952

- 107 Camp Administration (3 cred.; prereq. *47) IX-X W, Ar., Osell, Ostrander, Thorpe
- 118E See 118Ef
- 224 See 224f
- 247** See 247f

Spring Quarter, 1952

- 118E See 118Ef
- 224 See 224f
- 247** See 247f

MAJOR ADVISERS

1951-52

Subject	Name of Instructor	Room
General Advisers	Jean H. Alexander, Chairman, Students' Work Committee ...	210aBu
	William H. Edson, Director, Student Personnel	206aBu
	J. M. Nolte	152NH
<i>Educational Fields</i>		
Agricultural Education	Milo J. Peterson	205Hr (StP)
Art Education	Clifton Gayne	106J
	Reid Hastie	106J
	Mildred Page	106J
Business Education (Distributive and Office)	Ray G. Price	109TNUH
	Warren G. Meyer	107TNUH
Curriculum and Instruction	C. W. Boardman (Secondary) ...	106Bu
	L. J. Brueckner (Elementary) ...	205Bu
	W. W. Cook (Elementary)	207Bu
	Ruth E. Eckert (Higher)	203Bu
	Dora V. Smith (English)	201Bu
Educational Administration	C. W. Boardman (Secondary) ...	106Bu
	M. G. Neale (General)	224Bu
Educational Psychology	W. W. Cook	207Bu
	Willis E. Dugan	217Bu
	Guy L. Bond	212Bu
	P. O. Johnson	216Bu
	Marcia Edwards	202bBu
	M. J. Van Wagenen	360Psy
	C. Gilbert Wrenn	109Bu
Health Education	Ruth Grout	121MH
Elementary Education	Jean H. Alexander	210aBu
	C. P. Archer	218Bu
	Guy L. Bond	212Bu
	L. J. Brueckner	205Bu
	W. W. Cook	207Bu
	Carl Goossen	220Bu
History and Philosophy of Education	Jean H. Alexander (History) ...	210aBu
	Robert Beck (Philosophy)	215Bu
	Miles E. Cary (Philosophy)	215Bu
Home Economics Education	Clara B. Arny	202HE (StP)
	Ella J. Rose	115HE (StP)
Industrial Education	William J. Micheels	105TNUH
	Homer J. Smith	101TNUH
Library Training	Irene Hayner	6Lib
	Edward B. Stanford	107Lib
Methods and Directed Teaching	Paul R. Grim	210cBu
Music Education	Paul M. Oberg	106ScH
	Robert W. Winslow	213ScH
	Paul Ivory	214ScH

Subject	Name of Instructor	Room
Nursery School and Kindergarten Education	John Anderson	101Pt
	Elizabeth M. Fuller	2aCWI
	Virginia Levie	1CWI
Nursing Education	Katharine J. Densford	125Owre
Physical Education for Men	Louis F. Keller	220bCH
	Carl L. Nordly	217CH
	Ralph Piper	219CH
Physical Education for Women	Gertrude Baker	104NGW
Public Health Nursing	Margaret S. Taylor	121MH
Radio Education	T. F. Tyler	111NMA
Recreational Leadership	G. B. Fitzgerald	221CH
Rural Education	C. P. Archer	218Bu
Visual Education		

Subject-Matter Fields

Botany	See Natural Science	
Chemistry	See Natural Science	
English	Harold B. Allen	317F
	Dora V. Smith	201Bu
Geography	John Borchert	222ForH
German	F. H. Wood	210F
History	A. C. Krey	205ForH
	John Bowditch	205ForH
Journalism	Fred L. Kildow	106MurH
Latin	Norman J. DeWitt	118F
Mathematics	William L. Hart	119F
Natural Science	P. O. Johnson	216Bu
	Clarence Boeck	11UHS
Physics	See Natural Science	
Political Science	George Warp	364ForH
Public Health	Ruth Boynton	300HS
Romance Languages	R. L. Grismer	319F
	H. E. Clefton	200aF
Scandinavian	Alrik Gustafson	13F
Social Studies	George McCune	214NH
Sociology	Douglas Marshall	450ForH
Speech	Howard Gilkinson	309bF
	Donald Smith	401F
	Kenneth Graham	10ScH
Speech Pathology	Bryng Bryngelson	410F
Zoology	See Natural Science	

SUMMARY OF CLASS SCHEDULES

Saturday I-II	Saturday III-IV	Monday IX-X	Tuesday IX-X	Wednesday IX-X	Thursday IX-X	Friday IX-X
FALL						
Ed.C.I.102 Ed.C.I.113 Ed.C.I.133 Ed.C.I.143 Ed.C.I.184 Ed.C.I.294	ArtEd.189 Ed.C.I.153 Ed.C.I.168 Ed.C.I.287 Ed.Ad.133 Ed.Ad.230 Ed.Psy.133 Ed.Psy.182 H.E.Ed.243	Ed.C.I.63 Ed.C.I.105 Ed.C.I.181 Ed.Ad.253 H.Ed.179 Ind.60	Ed.C.I.136 Ed.C.I.145 Ed.C.I.170B H.Ed.141 Ind.107	Ed.C.I.109* Ed.C.I.222 Ed.C.I.225 Ed.Ad.218 Ed.Psy.113 Ind.40 Mu.Ed.60-61-62	ArtEd.296* Ed.C.I.107 Ed.C.I.131 Ed.C.I.226 H.E.Ed.295* Ind.100	Ind.80
WINTER						
Ed.C.I.117 Ed.C.I.119 Ed.C.I.134 Ed.C.I.144 Ed.C.I.204 H.Ed.110	ArtEd.151 Ed.C.I.105 Ed.C.I.113 Ed.C.I.150 Ed.C.I.285 Ed.Ad.115 H.E.Ed.243	Ed.C.I.264 Ed.Ad.290 H.Ed.178 Ind.61	Ed.C.I.173B Ed.Psy.220 H.Ed.131	Ed.C.I.109* Ed.C.I.139 Ed.C.I.222 Ed.C.I.225 Ed.Ad.218 Ed.Psy.114 Ind.42 Mu.Ed.60-61-62 P.E.107	ArtEd.284* ArtEd.296* Ed.C.I.106 Ed.C.I.108 Ed.C.I.156 Ed.C.I.226 H.E.Ed.295*	Ind.102
SPRING						
ArtEd.84 Ed.C.I.63 Ed.C.I.122 Ed.C.I.250 Ed.Ad.226 Ed.Psy.142	Ed.C.I.149 Ed.C.I.153 Ed.C.I.173A Ed.C.I.254 Ed.C.I.286 Ed.Psy.254 H.E.Ed.243	ArtEd.81 H.Ed.110 H.E.Ed.194B* Ind.44	Ed.Psy.221 H.Ed.182	ArtEd.81 Ed.C.I.141 Ed.C.I.151 Ed.C.I.222 Ed.C.I.225 Ed.Ad.218 Ed.Psy.115 H.E.Ed.193A Ind.40 Mu.Ed.60-61-62	ArtEd.156 Ed.C.I.161 Ed.C.I.226 H.E.Ed.295*	ArtEd.81 H.E.Ed.194B* Ind.70

* Meets IX hour only or IX hour and additional time to be arranged. See Program of Classes.