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College of Education

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How To Use This Bulletin

This bulletin is the basic source of information about the College of Education. Keep it at hand for ready reference. The Table of Contents shows the general organization of the bulletin and the Index will direct you to a specific point.

Section I describes the purposes of the college, the general education of the teacher, the student personnel services, and the regulations of the college, as well as other matters of general information. Section II sets forth the professional requirements for high school teachers of academic subjects. Section III gives the courses included in the majors and minors in those subjects. Section IV describes the curricula in special subjects or fields. Section V contains descriptions of the courses offered in the College of Education and in some other departments of the University where students take part of their work.

While this bulletin contains all the information necessary in regard to curricula, for program planning it will be necessary to consult the *Bulletin of the College of Science, Literature, and the Arts* about the courses offered in that college which constitute the major portion of the work of the freshman and sophomore years. It will also be necessary to consult the *Class Schedule* published just prior to each quarter to ascertain hours, room numbers, and any last minute changes in offerings.

You will also wish to read the *General Information Bulletin* to gain important information about the University as a whole and the *New Students' Handbook* which describes the personnel services and campus activities to help students make the most of their university life.

Copies of all bulletins of the University can be obtained at the Information Window in the Administration Building.

GENERAL INFORMATION

The College of Education is organized to offer professional curricula in the field of education, to promote research in the problems of education, and to provide educational guidance for prospective teachers and other educational workers in the schools. The completion of satisfactory curricula in this college entitles graduates to receive certificates for school work from the Minnesota State Department of Education. Such certificates are issued only to those graduating from this college.

Courses of study in the College of Education are based on the requirements of the Minnesota State Department of Education. Since requirements for certification vary in the different states, students who desire to teach in states other than Minnesota should familiarize themselves with the regulations of the state in which they expect to teach.

Among the important undergraduate curricula offered by the college are those relating to teaching in the following fields: academic subjects in elementary and junior and senior high schools, agriculture, art, business subjects, home economics, industrial arts, music, natural science, and physical education.

Work is also offered in the fields of library science, recreational leadership, school health work, teaching of handicapped children, work of the visiting teacher, nursery school and kindergarten education, nursing education, and public health nursing.

Five-year curricula leading to the master of education (M.Ed.) degree are offered in agricultural education, art education, home economics education, industrial education, music education, physical education for men, and physical education for women. These curricula are outlined in this bulletin. Other five-year curricula include early childhood education, elementary education, English education, natural science, recreational leadership, rural education, social studies. Information in regard to these programs may be secured from the advisers or from the dean of the college.

Undergraduate and graduate courses are available in adult education, agricultural education, art education, clinical psychology, comparative education, educational administration, educational psychology, educational and vocational guidance, elementary education, higher education, history and philosophy of education, home economics education, industrial education, music education, physical education, professional education of teachers, radio education, recreation, secondary education, supervision, theory and practice of teaching, and visual education. For graduate work in education with major emphasis on one of these fields, see the five-year curricula listed in this bulletin, and the *Bulletin of the Graduate School*.

The Preparation of the Teacher

A student planning to enter the teaching profession needs three general types of preparation: (1) a broad general education; (2) knowledge of fields in which he or she intends to teach; and (3) professional orientation and training. These cannot be separated arbitrarily, since some course work and related experiences may well contribute to all three ends. The work of a teacher must constantly integrate all of them. Most courses, however, will be pointed more specifically towards one or the other of these objectives with primary emphasis on general education in the first two years, and concentration on teaching fields and professional preparation in the last two years of college.

Teaching Fields

Extensive preparation in the fields to be taught is essential for effective teaching. This includes basic understanding of the general area of his teaching fields* coupled with more intensive study of some particular topics in order to appreciate the methods of investigation, to acquire familiarity with the sources of knowledge, and to develop the attitudes essential to further independent learning. It also involves a training sufficiently broad to show the relation of his own field to other areas of knowledge and human activity. Good teaching is possible only in constant reference to the spirit and letter of scholarship.

Professional Orientation

The prospective teacher must also be oriented to the professional aspects of his vocation and through study and practice lay the foundations of orientation and training for his teaching activities. This involves: (1) an understanding of the history, organization, function, curriculum, student composition, problems and issues of the school as a social institution in a democratic society; (2) an understanding of the intellectual, emotional, and social development of children and youth; (3) a knowledge of the principles and conditions which facilitate and motivate learning; (4) guided experience for elementary or secondary teaching, classroom management and counseling; (5) introduction to the professional practices and problems of his teaching fields; (6) the professional treatment of certain elements of his general education for teaching purposes; and (7) an appreciation of the teacher's personal and professional problems and relationships.

General Education

As a complement to his specialized and professional learning, the prospective teacher should also acquire what may be termed a general education. General education should help the individual to gain an awareness and understanding of problems of contemporary living, the cultural, social, and technological heritage of his age, and to develop the ability to think critically, to weigh basic human values, and to appreciate the products of creative thought and expression. It should prepare him for effective participation in democratic society and at the same time stimulate and allow full scope to his individual interests and talents. General education should therefore provide for common development of understandings, skills, insights, and appreciations for the personal and social activities basic to normal human living in a free society.

General education may perhaps be better described in terms of outcomes or purposes to be achieved than in terms of certain bodies of subject-matter content to be mastered. The following is a rather simple statement of the outcomes that courses in general education should strive to build. No attempt has been made to arrange them in any order of importance, since the significance of these objectives will vary from student to student, depending on individual backgrounds, abilities, and purposes. Yet attainment of certain objectives, such as responsible citizenship, will undoubtedly involve more systematic and extended classroom instruction than will be required for others. It should also be pointed out that in establishing these as tentative objectives of general education, it is understood that different students will achieve these outcomes in different degrees. Attainment of each of these goals will normally be sought through a variety of courses and

* In general, it is better to prepare broadly and as thoroughly as possible in a whole teaching field such as natural science or social studies than in a specific subject such as chemistry or sociology.

curricular activities. Since the task of most elementary and secondary school teachers is to advance the general education of their students, the prospective teacher may also adopt these goals as objectives for his own future teaching.

Elements of General Education

The elements of general education may be rather simply stated. They should enable the student:

1. To understand other persons' ideas through reading and listening, and, in turn, to express his own ideas effectively to others.
2. To attain a balanced emotional and social adjustment through an understanding of human behavior, the enjoyment of social relationships, and the experiences of working co-operatively with others.
3. To acquire the knowledge and attitudes necessary to come to intelligent decisions about personal and community health problems.
4. To acquire the knowledge and attitudes basic to a satisfying family life.
5. To acquire the knowledge and attitudes essential for participation as a responsible and informed citizen in the discussion and the solution of the social, economic, and political problems of American and international life.
6. To have a general knowledge of the history of scientific advance and to appreciate its impact upon the material and intellectual life of man; to understand and appreciate the scientific method and to use it in the solution of personal and social problems.
7. To understand and enjoy literature, music, the arts, and other cultural and recreational activities as an expression of personal and social experience, and, if possible, to participate in some form of creative activities.
8. To develop a set of principles for the direction of personal and social behavior through the recognition and critical examination of the values implicit in his own conduct.
9. To think critically and constructively on a wide range of personal, social, intellectual, and practical problems.
10. To choose a socially useful and personally satisfying vocation that will enable him to utilize his particular interests and abilities to the full.

Specialization—Majors and Minors

The undergraduate student should specialize in the two fields of teaching in which he is most interested and which he finds he will enjoy most. He should, however, also consider the demands of the teaching profession and the probability of securing a position. Placement in nearly all fields is good but for a number of years there have been greater demands than we can supply in elementary education, in physical education for women, in home economics, in general science, in business education, and in mathematics.

The selection of one or two suitable minors to supplement a teaching major is important. Some combinations are more frequently requested than others. The most frequent combinations can be learned from an adviser or from mimeographed material available in the Bureau of Recommendations, 210 Burton Hall. Students who have majors in broad fields are more easily placed than those with one-subject majors and minors in unrelated subjects. Experience in student activities on the campus is a decided asset in securing a position and such participation is highly recommended to prospective teachers. Teachers with an academic major and with minors in special subjects such as home economics, music, art, physical education, and library work are in great demand in schools where the first experience must take place. Further specialization in single fields or subjects for teaching can take place as graduate work during Summer Sessions.

Student Personnel Services

Faculty Advisers—A list of faculty advisers is available at the College of Education Office, 204 Burton Hall. From this list the student selects one of the advisers listed for the field in which he plans to do his major work. Faculty advisers will assist the student in planning his program, in registration, and with other problems.

Student Personnel Office—To cooperate with the faculty advisers and instructors and to supplement their services to students, the college maintains the Student Personnel Office where the student may obtain counseling on vocational, educational, or personal problems. These services are also available to anyone who is contemplating entering the College of Education. Appointments to see a counselor may be obtained in the office, 206 Burton Hall.

Guidance Test Battery—A series of tests designed to be of assistance in counseling students in Education is given regularly to all freshmen and juniors in the college. Information concerning the results of these tests may be obtained by the student from his faculty adviser or from the Student Personnel Office.

University personnel services—In addition to the College of Education personnel services the student is invited to use the specialized personnel services provided by the University for all students. These university services include the Student Activities Bureau, the Student Counseling Bureau, the adviser for Foreign Students, the Student Housing Bureau, the Bureau of Student Loans and Scholarships, the Speech Clinic, the Bureau of Veterans' Affairs, the Student Employment Bureau, and the Students' Health Service.

Student orientation—An orientation program for all new students is offered in the fall by the University for introduction to the many phases of a student's college career. By means of the *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 meet other new students, and to explore some of the full range of opportunities available to university students. We urge that students read the *New Students' Handbook* thoroughly before arrival. It has been designed to answer preliminary questions and to picture briefly student life at the University of Minnesota.

Placement services—As a further aid to students and graduates the College of Education provides placement service for qualified individuals and aids them in securing the kinds of positions they desire. For a complete statement see Bureau of Recommendations, page 19.

Students' Work Committee—The Students' Work Committee of the college has as one of its functions the adjustment of programs to the individual needs of students. Anyone who has difficulty in scheduling required courses, or has had equivalent courses here or elsewhere, or whose pattern of work 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.

Admission

General admission requirements—There are two main divisions of teacher training in the College of Education. The *academic curricula* require two years of preprofessional college work for entrance. These curricula include the high school academic subject fields such as mathematics, social studies, English, foreign languages, natural science, library methods, business education, and speech pathology

The *specialized curricula* may be entered by freshmen who qualify for the four-year fields of training which include industrial, physical, music and art education, recreational leadership, and elementary, kindergarten-primary and nursery school teaching. In the specialized curricula in agricultural and home economics education, the students register for the first two years in the College of Agriculture, Forestry, and Home Economics, and register jointly for the junior and senior years in that division and in the College of Education.

1. Applicants for admission as freshmen in one of the *specialized curricula* in art education, elementary education, industrial education, music education, nursery school, kindergarten and primary education, physical education, and recreational leadership must possess a high school percentile rank of 40 or above in their graduating class.

2. Students will be admitted to the College of Education without reference to the pattern of high school courses, high school graduation only being required.

3. Applicants for teacher training in fields (academic curricula) other than the ones mentioned above must meet requirements for admission to the College of Science, Literature, and the Arts where they will be registered during the first two years of the curriculum.

4. Admission with advanced standing in any curriculum in the College of Education requires a C+ (1.5) average in courses of the major subject as listed in the *Bulletin of the College of Education*, and an over-all C average in previous college work.

5. Applicants for admission to the College of Education who do not meet fully the stated requirements may be referred by the Office of Admissions and Records to the admissions committee of the college for consideration on an individual basis.

All Students

1. At the time of entrance to the University a student must present a certificate from the Students' Health Service indicating that he is free from physical defects which would prevent him from the successful pursuit of educational work.

2. Admission to and continuation in the teacher training program will be authorized by the dean or appropriate delegated authority in the College of Education on the basis of academic standards and appraisal of other factors of fitness for teaching. Continuation in teacher training will be subject to a review of qualifications at (a) entrance into the Senior College, (b) entrance into practice teaching, and (c) at any other point in training as necessary in individual cases.

3. All students entering the College of Education after the freshman year must have the required physical education work.

Students in Specialized Curricula

Students who did not enter as freshmen and who are following one of the specialized curricula (pages 31-102) in which the work of the freshman and sophomore years is prescribed, should present for entrance the Junior College courses listed in their curriculum. Two years of work representing 96 credits carried with an average of one honor point per credit are required. For men, 3, and for women 5, of these credits shall be in physical education.

Students with two years of college training who are lacking certain specific Junior College courses may be admitted to the College of Education and will make up deficiencies after enrolment in the College of Education. Such deficiencies, however, may delay graduation or necessitate extra summer work. All courses of a special curriculum or equivalents should be completed, although it may not always be possible to complete the courses in the order listed.

Students with Two Years of Work at the University of Minnesota

For 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 junior college, and are preparing to teach academic subjects in high school, entrance to the College of Education will be conditioned upon meeting the general and specific requirements outlined on pages 9-10.

1. In the freshman and sophomore years, men must complete three quarters of physical education; women must complete four quarters of physical education. For men 3 credits, and for women 5 credits, to be counted toward graduation from the College of Education, will be granted for the completion of the requirement in physical education. The total number of credits required for graduation is 186 credits. Students will receive credit for courses in military and naval science and tactics.

2. 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 page 12.

3. A minimum of 90 credits carried with an average of one honor point per credit. For men, 3, and for women 5, of these credits shall be in physical education.

4. Before entering the College of Education the student must 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 (a) personal health and (b) community health information 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.* (Students will be excused from this course if they pass a certain approved examination covering community health information which will be offered every quarter by the Student Counseling Bureau at a time and place to be announced in the University's Official Daily Bulletin of the *Minnesota Daily.*)
- c. In Plan I the student may not use psychology (with laboratory) to meet the natural science requirement in Group D.
- d. In Plan II, Group D, the student must take a minimum of 9 credits in natural science exclusive of psychology and mathematics.

5. Within the total credits stipulated under No. 4, a student must meet in fields of study which are represented in prevailing high school curricula, the following requirements: at least 15 credits in a major field and at least 10 credits in each of two minor fields. The purpose of this requirement is to prepare the student for the study of the advanced courses necessary to the completion of satisfactory teaching majors and minors.

6. The student must have completed 6 credits in general psychology.

7. 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.

* The course Public Health 50 (Public and Personal Health, 3 credits) is a substitute for both Course 3 and Course 4. It is primarily for juniors and seniors but sophomores are sometimes allowed to take it.

8. Students in the College of Education may elect toward a degree a maximum of 24 hours in military training of which 6 credits are to be in the Basic Course and 18 credits from advanced ROTC courses. (See page 18.)

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

Students in Agriculture and Home Economics—Students expecting to receive certificates upon graduation to teach agriculture or home economics shall be registrants in the College of Education beginning with the junior year. Students in the College of Agriculture, Forestry, and Home Economics desiring a teacher's certificate in home economics or in agriculture shall, in addition to their registration in that college, register also in the College of Education. No formal application for transfer is necessary if such transfer is made at the beginning of the junior year. At least 90 credits, and honor points equal to the number of credits, are required for admission to the junior class.

Students from Other Colleges

Students who transfer from other colleges with advanced standing are required to complete the work of the freshman and sophomore years as outlined in their curriculum or as outlined above in Junior College requirements (page 9). However, students who have had 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 enrolment in the college. Such deficiencies may delay graduation or necessitate extra summer work.

After a student from another college has been admitted to the College of Education, he should see his major adviser concerning his program. In many cases, certain program adjustments must be made in order to utilize to the student's best advantage the credits which he has received as advanced standing in the College of Education. Information concerning the office hours of the major advisers is given to the students with their registration material. In some cases where questions arise about the relation of advanced standing credits to our graduation requirements, the student may wish to consult the chairman of the Students' Work Committee, as well as his major adviser. Counselors in the Student Personnel Office will also be glad to make appointments to assist students entering with advanced standing.

Admission on probation—Students with advanced standing who wish to enter the College of Education may be admitted on probation if the average of the grades presented for admission is below that of the average mark required for graduation in the college from which they enter. (See under Admissions, Sec. 5, page 8.)

Prerequisites for senior work—Students who transfer with three years of college work approximating 135 credits, including students who already hold a B.A. or B.S. degree, cannot complete work for a degree and a teacher's certificate in one year. Because of the sequence of professional courses such students who enter in the fall must have five quarters of work in the College of Education, these quarters representing the three quarters of the junior year and the fall and winter quarters of the senior year. (Equivalent courses are not available in the Summer Sessions.) However, students who enter at the beginning of the winter quarter can complete the work in the winter and spring quarters of the junior year and the fall and winter 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 public health nursing and who desire a teacher's certificate register in the College of Education for the last 45 credits of work. A student who enters the University as a freshman spends five quarters in the College of Science, Literature, and the Arts, earning 75 credits. During the next ten quarters the student is registered in the School of Nursing taking required subjects and nursing practice. During the last three quarters the student is registered in the College of Education. For detailed statement see pages 67-77.

Students from Teachers Colleges

Graduates from the standard two-year course of the Minnesota state teachers colleges and of other fully accredited teachers colleges are admitted to the College of Education with 90 blanket credits. These credits are accepted in lieu of the Junior College requirements listed above but a student in a specialized field will be held for all the work of his curriculum.

Graduates of the three-year course in the state teachers colleges of Minnesota will receive not more than 113 quarter credits; credits earned in such three-year normal course shall be applied, in case they are deemed of equivalent merit, in the College of Education, to courses for teachers and supervisors in elementary grades, principals in state graded schools, teachers in junior high schools, or in normal school departments in high school; students coming from such three-year courses will not receive certificates for teaching high school subjects from the University without completing the prescribed courses of the University for such certificates or their equivalents.

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 in subject-matter to courses offered in the College of Education.

Graduates of five-year normal courses, if individually recommended by the normal school president, are allowed 63 quarter credits and are admitted as unclassified students pending the completion of 27 additional credits.

Teachers of experience who are unable to meet the regular requirements for admission are admitted to the College of Education as unclassified 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.

Residence Requirements

The minimum residence requirement for graduation from the College of Education is represented by 45 credits of work, of which 30 credits must be earned in the senior year. No degree can be granted to any student who does not meet this requirement. Correspondence courses and General Extension courses do not count as residence credit except General Extension courses offered in Minneapolis, St. Paul, and Duluth.

Courses of study in the College of Education are outlined for two years and for four years.

Students may shorten the two years or four years of residence only by attending Summer Sessions, taking courses in General Extension in class or by correspondence, or by meeting such additional requirements in quality and quantity

of professional work as will make the training of such students equal to that of students regularly registered for the full course.

The required courses in education are arranged in a sequence for the junior and senior years and cannot be completed in less time except in unusual cases or by extra summer work. Students who have not completed courses by the opening of the fall quarter will not, as a rule, be admitted to senior work. Students who do not enter the College of Education at the beginning of the junior year will not, as a rule, be able to complete the requirements of their curricula in two years.

Students who transfer from other colleges with three or more years of work receive a maximum of 135 credits exclusive of physical education. Students who transfer with 135 credits will, as a rule, require four or five quarters to complete work for a degree. To receive a certificate for teaching a student must be a graduate of the College of Education.

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, but students will be exempted from either or both of the *first two* requirements on the basis of health knowledge shown through placement tests.* A minimum of 6 credits is required unless students are exempted from (a) and (b).

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 Pre-school 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.

Examinations and Requirements for Registration in Directed Teaching

Registration for directed teaching takes place in the spring quarter of the junior year of the College of Education. Students are not admitted to directed teaching in the fall and winter quarters. Such registration is subject to the approval of the director of student teaching. Such approval involves (1) a satisfactory report of the physical examination; (2) a satisfactory rating on the general English examination given during the junior year; (3) completion of all prerequisite courses in the major or satisfactory preparation in the major field; (4) satisfactory completion of all prerequisite courses in education; (5) satisfactory performance on all tests and examinations required by the committee on examinations, including the speech examination; (6) a C+ average (1.5 honor points per credit) in all courses in the major; (7) the recommendation of the major adviser; (8) the completion of any specific requirements set up by the examination committee or by the major department or by the director of student teaching. A student may be required to cancel his registration in directed teaching if he fails to meet the re-

* Students in physical education for men are not exempted on the basis of placement tests.

quirements or if his work is unsatisfactory. The student who is required to cancel his registration in directed teaching during the second or third quarter will be allowed to graduate without a teacher's certificate provided all other requirements have been met. Some of the requirements listed above may be waived for veterans upon the recommendation of the director of student teaching and the Students' Work Committee.

Grades, Credits, and Honor Points

Grades—The Senate regulations governing the "Uniform Grade and Honor Point System" is as follows:

(1) There are four permanent grades, A (highest), B, C, and D (lowest), acceptable for the completion of a single course.

(2) A permanent grade of F (failure) is given for work which in the opinion of the instructor should be repeated in class.

(3) The grade of I (incomplete) is a temporary grade indicating that a student has a satisfactory record in work completed and for justifiable reasons satisfactory to the instructor in charge was unable to complete the work of the courses.

Any student receiving this grade is required to complete the work of the course within the first thirty days of his next quarter in residence. A grade of Incomplete which is not removed within the first thirty days of the student's next quarter in residence will be marked canceled without grade.

An extension of time may be permitted for removal of incomplete grades upon recommendation of the instructor concerned and approval by the Students' Work Committee of the college in which the student is registered.

If a petition is presented after the end of the thirty-day period, a restoration of the mark of incomplete may be permitted by the Students' Work Committee of the college concerned upon the recommendation of the instructor but would be considered in the nature of a special examination for which the special examination fee would be required.

(4) A symbol T (transferred) is used to indicate the transfer of credits from another institution or from one college to another within the University.

(5) For the purpose of determining scholarship averages, honor points are assigned to grades of A, B, C, and D as follows:

Each credit of A	3 honor points
Each credit of B	2 honor points
Each credit of C	1 honor point
Each credit of D	0 honor points

A student's scholarship average is the total number of honor points earned divided by the credits earned plus credits of removed and unremoved failures. See below.

The amount of work pursued by a student is estimated in credit hours; the quality or grade of his work, in honor points.

A credit hour is one hour per week of recitation or lecture work extending throughout one quarter, or three hours per week of laboratory work throughout one quarter. It is assumed that each credit hour will demand on the average three hours a week of the student's time for recitation or lecture, one hour in class, and two hours of preparation; for laboratory courses, three hours in the laboratory.

Honor points are computed as follows: each credit hour with the grade of A entitles the recipient to 3 honor points; each credit hour with the grade of B to 2 honor points; each credit hour with the grade of C to 1 honor point; each credit hour with the grade of D to no honor points. Illustration: A student completing a one-quarter 3-credit course and receiving the grade of A would be entitled to 9 honor points; if receiving the grade of B, to 6 honor points; if receiving the grade of C, to 3 honor points; if receiving the grade of D, to no honor points.

The scholarship or honor point average is based on all courses a student has taken. It is obtained by dividing the number of honor points earned by the

number of credits earned plus the credits of removed and unremoved failures. For example, assuming a student has registered for four 3-credit courses and receives grades of A, B, C, and D, he will have 12 credits and 18 honor points and his scholarship average is 1.5 or C+. If he registers for four courses and receives grades of B, C, D, and F, the total is 9 credits earned, 3 credits Fail and 9 honor points and the average is .75. If he repeats the course in which he received an F and earns a B, there are added to his record 3 credits earned and 6 honor points, and the total is 12 credits earned, 3 credits Fail and 15 honor points and his average is 1.0 or C.

Amount and Quality of Work for the Bachelor of Science Degree

a. Upon entering the College of Education the student should, under advisement, (1) plan his program to secure one academic major and one or more academic minors and the required professional education courses*; or (2) he should plan his program in accordance with one of the specialized curricula.

b. During his entire course the student must earn a minimum of (1) 186 credits† including the required courses in physical education, or a smaller number of credits determined as follows: For every 5 honor points in excess of 1 honor point per credit the number 186 is diminished by 1, but no student will be recommended for graduation who has not completed all of the courses required in his particular curriculum and who has not satisfied all the requirements of his curriculum; (2) 1½ honor points per credit or an honor point ratio of 1.5 in his *major* subject; (3) 1 honor point per credit or an honor point ratio of 1.0 in his *minor* subject or *minors*; and (4) an average of 1 honor point per credit or an honor point ratio of 1.0 in *all courses* except those in the major pursued during the junior and senior years.

c. Fifteen or sixteen credits are regarded as the usual load. Students who register for more than 17 hours should have a record of 1½ honor points per credit for the previous quarter. Students may be required to cancel one or more courses if their load is too heavy or their record is unsatisfactory.

d. All students registered in the College of Education shall maintain satisfactory standards of oral and written English. To determine when satisfactory standards have been attained the student is required to pass a general examination in English during the sophomore or junior year.

e. Students registered as freshmen and sophomores in the College of Education will be guided by the faculty regulations of the College of Science, Literature, and the Arts, but are responsible to the Students' Work Committee of this college.

f. Students who register in specialized curricula in the freshman and sophomore years must have an average of 1 honor point per credit, or an honor point average of 1, for the first two years before they are admitted to junior work.

g. A student must have an honor point average of 1.5 or 1½ honor points per credit in his major subject to be admitted to student teaching.

Honor points in the major—Honor points are computed on the basis of one and one-half times the number of credits required in the major subject; e.g., in case a major recommendation requires 36 credits, the number of honor points will be 54. From among the courses carried in a department the student may select those which he will present as meeting this requirement except that he must include all courses which are specified in the departmental announcement as required for the recommendation for the certificate.

* For requirements in Education see pages 22-23.

† In some of the specialized curricula the number of credits required is more than 186.

Unsatisfactory Work

Continued residence in the college is conditioned upon reasonable success in the student's work and progress toward graduation. Any student who does not make satisfactory progress in the curriculum in which he is registered may be placed on probation by the Students' Work Committee. No student is considered to have a satisfactory standing who fails to secure in the course of any year the normal advance of 1 honor point for each credit for which he is registered and 1½ honor points for each credit earned in his major subject.

Grades of D and F are considered unsatisfactory. A student who is found to have unsatisfactory marks in 50 per cent of his work at the end of any quarter will be placed on probation.

If he fails to make satisfactory marks in more than 50 per cent of his work the following quarter, he is liable to be dropped. Only in exceptional cases will such a student be allowed to continue in the College of Education.

Any student who has been on probation for more than one quarter and who fails to make an average of 1 honor point per credit may be dropped by the Students' Work Committee.

Graduation—Degrees—Honors

The degree of bachelor of science—Students graduating from the College of Education will receive the degree of bachelor of science. A total of 186 credits and 186 honor points is required for graduation. Candidates for this degree must (a) have met the requirements in a major and in a minor field and in professional subjects, or (b) they must have completed one of the specialized curricula. In addition they must have met the special scholarship requirements as stated on page 14. Candidates may major in any department listed on page 21.

Graduation with high distinction—All candidates of the four-year curricula of this college who have attained *special excellence* in scholarship as evidenced by an honor point ratio* of 2.5 or more are candidates for the degree of bachelor of science *with high distinction*. This award is *not automatic* but is conditioned upon favorable recommendations of the faculty and is conferred by faculty action only. Other conditions that influence the award are the amount of advanced work taken by the student, the percentage of work taken at the University of Minnesota, evidence of ability to do independent work, success in student teaching, and other conditions affecting scholastic standing.

Graduation with distinction—All graduates of the four-year curricula of this college who have attained *excellence* in scholarship to the extent of having earned an average honor point ratio* of 2.0 or more are candidates for the degree of bachelor of science *with distinction*. This award is *not automatic* but is conditioned upon favorable recommendation of the faculty and is conferred by faculty action only. Other conditions that influence the award are the amount of advanced work taken by the student, the percentage of work taken at the University of Minnesota, evidence of ability to do independent work, success in student teaching, and other conditions affecting scholastic standing.

The degree of master of education—Students graduating from one of the five-year curricula in the College of Education will receive the degree of master of education. A minimum of 45 credits beyond the requirement for the Bachelor's degree is required for this degree, together with the completion of all requirements of the curriculum. See page 16.

* The honor point ratio is calculated by dividing the total number of honor points earned by the total number of credits earned plus credits of the F (fail). See pages 13-14.

Master of Education Degree

The College of Education grants the professional degree of master of education (M.Ed.) to students who satisfactorily complete the prescribed five-year programs. Five-year curricula are available in Agricultural Education, Art Education, Early Childhood Education, Elementary Education, English Education, Home Economics Education, Industrial Education, Music Education, Natural Science, Physical Education for Men, Physical Education for Women, Recreation, Rural School Supervision, and Social Studies. Students register in the curricula named above at the beginning of the freshman year. The student who already has a Bachelor's degree in the field may qualify for the degree of master of education by completing all the requirements of the fifth year.

Because standards for teacher-training are being raised and many states and cities now require a Master's degree for teaching in high school and for supervisory and special work, students are urged to take advantage of the five-year programs whenever possible.

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 (not subject) specialization, usually about 90 quarter credits; (4) advanced professional training including one quarter of internship under a master teacher. The total number of quarter credits is from 225 to 231 (or 45 credits beyond the Bachelor's degree), of which at least 45 must be in courses numbered above 100. In the courses comprising the fifth year of the curriculum, a B average (2 honor points per credit) is required. Final written and oral comprehensive examinations, and demonstration of competence in teaching classes, are required.

Awards and Scholarships

Coffman Foundation Award—This award is for graduate study in education and is 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—This scholarship is awarded annually to a woman student in the College of Education on the basis of need as well as character and ability.

Bertha Weiskopf Memorial Scholarship—This is 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, 202 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 Loans and Scholarships, 211 Eddy Hall.

Graduate Work in Education†

Graduate work in education leading to the degree of master of arts or doctor of philosophy may be pursued in the Graduate School. All courses bearing numbers 100 and above (with the exception of those designated by a capital "E") are open for credit to graduate students. Before attempting to make out their programs, graduate students in education should consult the dean of the College of Education and the dean of the Graduate School.

† For complete description of graduate work in education, see the *Bulletin of the Graduate School*.

Graduate courses may be pursued during the Summer Session. The work for the Master's degree may ordinarily be completed in three or four full Summer Sessions. For full statement of regulations, consult the *Bulletin of the Graduate School*.

Prerequisites for graduate work in education—For major work the prerequisite is at least 6 quarter credits in psychology and in addition to this a total of not less than 18 quarter credits of undergraduate work in education which shall include Ed.51A-B-C or Ed.55A-B, or Ed.71A-B-C or the equivalent. For minor work at least 6 quarter credits in psychology, and, in addition to this, a total of not less than 18 credits of undergraduate work in education is required.

Candidates for degree—Students who have met the requirements for admission to the Graduate School and for the courses elected may register for graduate courses in education, but *are not candidates for a degree* until the formal acceptance of their candidacy. For requirements for acceptance for candidacy consult major adviser.

Language requirement—Candidates for the Master's degree majoring in any of the fields of education are exempted from the foreign language requirement without petition. Candidates for the Doctor's degree will meet the requirement of the Graduate School.

Academic work—Students who have taken their undergraduate work at teacher training institutions or have had an undergraduate major in professional or technical work should note especially the requirement in academic credits for admission to the Graduate School.

Majors and Minors

Major and minor work for advanced degrees may be arranged from the graduate courses listed below (pages 104 to 142) under the following groupings:

Doctor's Degree

Major—Major work will be chosen in the field of education in the following manner:

With the approval of his adviser the student will select a group of courses, excluding the field of his minor, centering about his special interest in education. Major fields are:

Education	Educational Psychology
Educational Administration	

Minor—Minors may be chosen as follows:

1. From one of the fields listed above, not representing the major, and from additional fields in education as listed below:

Education	History and Philosophy of Education
Agricultural Education	Home Economics Education
Curriculum and Instruction	Industrial Education
Educational Administration	Physical Education for Men
Educational Psychology	

2. Any other field of study offered in the University of Minnesota in which satisfactory courses of graduate character are available and which is obviously related to the field of major interest.

3. Students majoring in fields other than education may choose education or any of its subdivisions enumerated above under 1, as a minor when it appears that such a minor is appropriately related to a major field.

Master's Degree—Plan A

Major—Majors may be chosen as follows:

The student with the approval of his adviser may select a group of courses in one of the fields listed below, excluding the field of his minor, centering about his special interest in education.

Agricultural Education	History and Philosophy of Education
Curriculum and Instruction	Home Economics Education
Education	Industrial Education
Educational Administration	Physical Education for Men
Educational Psychology	

Minor—Minors may be chosen as follows:

1. From any of the groupings of courses enumerated above when such grouping is not included in the major.
2. From any other field of study offered at the University of Minnesota in which satisfactory courses of graduate character are available and which is obviously related to the major field.
3. Students majoring in fields other than education may choose education or any of its subdivisions enumerated above as a minor when it appears that such a minor is appropriately related to the major field.

Master's Degree—Plan B

Field of concentration—Under Plan B, which encourages a wider selection of courses, the student will be expected to select a field of concentration in which he will obtain from 21 to 27 credit hours. The field of concentration differs from a major in that it encourages the choice of a somewhat wider range of courses related to the student's interest. As in the case of the major, however, the student will be expected to indicate his field of concentration according to the general arrangement of courses that prevails for the requirement of a major. This arrangement is as follows:

Agricultural Education	History and Philosophy of Education
Curriculum and Instruction	Home Economics Education
Education (in special cases)	Industrial Education
Educational Administration	Physical Education for Men
Educational Psychology	

Additional courses—The student may elect the additional courses required to complete the total of 45 credits from areas of education not included in the field of concentration and from any other fields of study offered at the University of Minnesota in which satisfactory courses of graduate character are available and which are obviously related to the student's interest. Further work in subject-matter areas is encouraged.

Candidates for the Master's degree under Plan B are expected to earn 9 credits in advanced courses involving papers prepared in independent study. This requirement may be satisfied by work in starred courses.

Credit for Military Service

Credit for advanced courses in military and naval science and tactics is recognized in the College of Education in accordance with university regulations. Students interested in registering for such work should consult the officers in charge of the departments.

Credit is allowed for basic training received in the armed services and for advanced military and technical training upon presentation of the proper credentials to the Office of Admissions and Records.

Credit is also allowed for satisfactorily passing the various General Educational Development tests.

Laboratory Schools

The University High School is a six-year secondary school maintained by the College of Education to provide opportunity for observation, demonstration, experimentation, and research. Many students do their directed teaching in the University High School; others do their teaching in Marshall High School or other Twin City schools.

The demonstration school affiliated with the College of Education for work in elementary education is Tuttle School, Minneapolis. A demonstration and experimental school for nursery school, kindergarten, and primary grades is maintained by the Division of Child Welfare and the College of Education.

Bureaus of Recommendation and Educational Research

Bureau of Recommendations—All seniors (except Nursing Education seniors) are required to register with the Bureau of Recommendations before the spring quarter of the senior year. Graduates of the College of Education and graduate students in education who have met the requirements for a state teacher's certificate will be recommended for positions for which they are qualified. Students on the Minneapolis Campus register with the Bureau of Recommendations, 210 Burton Hall. 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 a small fee. The director of the bureau will confer with students and furnish information regarding placement, demands of the teaching profession, best subject-matter combinations, and probabilities of securing a position. Several group conferences are arranged for seniors each year.

Over twenty years of experience has led to the conclusion that 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 have come from all states in the Union, often long after students have left the campus. Only while the student is on the campus can we secure adequate recommendations from faculty and supervisors. College staff members cannot remember particular students well enough to write recommendations after a period of years and, in many cases, with changes in staff, no one is available later to take care of recommendations. 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.

The following are some of the frequent uses of the records: (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 securing 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 from employers in fields other than teaching.

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 on 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. Questions will be answered gladly by the director or assistant director of the bureau at 210 Burton Hall. Home economics and agricultural education majors will see their advisers on the St. Paul Campus.

Bureau of Educational Research—The College of Education conducts a Bureau of Educational Research for the purpose of promoting investigations by faculty and students in problems of education. The bureau is under the direction of the dean of the college and the members of the faculty co-operate as their several interests dictate. Through the bureau opportunity is given for co-operation with public schools in studies bearing upon problems of school administration, classroom instruction, and related matters. The bureau is responsible for the publication of a series of studies under the general title of Educational Monographs.

Special Fees

All methods courses and all special methods and directed teaching courses carry a fee of \$1.50 per credit hour. All courses listed under Curriculum and Instruction and Methods and Directed Teaching carry a fee of \$1.50 per credit. Certain courses in the various departments require the payment of special fees. Such fees are indicated in connection with the course descriptions in this bulletin and with the schedule of courses as listed in the College of Education section of the *Class Schedule*. For a statement of tuition and other fees see *Bulletin of General Information*.

Professional Lectures

From time to time during the year lectures of general interest to students of education will be given by members of the faculty and invited speakers. All students in the College of Education are expected to attend these lectures. Special announcements will appear in the Official Daily Bulletin of the *Minnesota Daily*.

Conferences for Student Teachers

Conferences for student teachers may be arranged during the school year by the director of student teaching. Such conferences are a part of the required work in all courses that include directed teaching and practice work. Discussion centers around professional topics and problems of interest to student and beginning teachers. Announcement of the lectures and conferences is made at the appropriate time.

Certification of Teachers

Employment in a professional capacity in the schools of Minnesota is conditioned upon the proper licensing of the person to be employed. By a law enacted in 1929 all authority for such certification is conferred upon the State Department of Education. Certification by institutions and the university teacher's certificate have been discontinued. Within the scope of this law the University operates its program for those students who desire certification for teaching in the public schools of this state.

The law provides that certification is automatic for the graduates of the College of Education who have completed specifically named curricula in this college. No provision is made for the certification of any other university graduates. Certificates may be issued only to those persons who are "physically competent and morally fit to teach." The various curricula in the College of Education provide the training necessary for any type of state certificate which is based upon four or five years of training beyond the high school.

Four-year programs of study which provide the training necessary for holding positions in the public schools of Minnesota are offered in the following subjects:

Agriculture	Nursery School and Kindergarten
Art Education	Education
Botany	Nursing Education
Business Education	Physical Education for Men
Chemistry	Physical Education for Women
Elementary Education	Physics
Elementary School Supervision	Political Science
English	Public Health
French	Public Health Nursing
Geography	Recreational Leadership
German	Scandinavian
History	School Health
Home Economics	Social Studies
Industrial Education	Sociology
Junior High School Education	Spanish
Latin	Speech
Library Methods	Speech Pathology
Mathematics	Teaching of Handicapped Children
Music Education	Visiting Teachers
Natural Science	Zoology

Students who desire certification upon graduation from the University of Minnesota shall be registrants in the College of Education beginning with the junior year (except in the four- and five-year curricula where students register in the college as freshmen). Students in home economics and agriculture shall also be registrants in the College of Agriculture, Forestry, and Home Economics. They shall have satisfied the prescribed requirements for a major and a minor in secondary school subjects or the specific requirements of a specialized curriculum as outlined in this bulletin. Such students will also be required to complete the two years' work leading to the degree of bachelor of science. *No certificate is granted without a degree from the College of Education.*

By a proper selection of courses students qualifying for the degree of bachelor of science may qualify for teaching in more than two fields. This is desirable since most beginning teachers in public schools are required to teach several subjects.

The Minnesota High School Advanced Certificate is granted upon the completion of a five-year program and the M.Ed. degree when the major is in a teaching field.

Because the regulations and requirements in general education, in subject-matter fields, and in education necessary for certification in different states are constantly changing, students who plan to teach in states other than Minnesota should consult their major advisers in order that they may fully complete the requirements for the specific state in which they wish to teach.

PROFESSIONAL REQUIREMENTS

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 a degree and for the certificate students not completing a specialized curriculum as set forth in this bulletin will meet the following requirements:*

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

B. 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. The following pages list the fields in which majors and minors are offered and the requirements in each field.

C. Professional courses totaling not less than 29 credits.

The student preparing for *high school* teaching in academic subjects must meet the following professional requirements:

1. **Required course—General**—Ed.55A-B. Introduction to Secondary School Teaching. (10 cred.; prereq., Psy. 1-2) (This course takes the place of Ed.51A-B-C offered formerly.)

This course consists of work in educational psychology and high school organization and administration.

2. **Methods and practice teaching**—In addition, the student must complete a course in methods and teaching (11 cred.; prereq., Ed.55A-B) in his major field.†

3. **Education electives**—To complete the professional requirement of at least 29 quarter credits required 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; Ind. 105, Administration of Industrial Education; Ind. 110, Vocational Guidance. Methods and other courses offered in the special subjects are sometimes approved by petition.

All of these courses are described in the section, Description of Courses, pages 103-144.

Directed Teaching†

Special methods and student teaching are normally combined into a one-year course beginning with the spring quarter of the junior year. Failure to register for such course for the spring quarter of the junior year will result in delay in graduation. All courses prerequisite to special methods and practice teaching should have

* 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.

† See prerequisites for registration in *Methods and Directed Teaching*, pages 103-24.

been completed by the second quarter of the junior year. In addition to the special methods and practice 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 directed teaching in high school classes.

Arrangements for directed teaching should be made during the winter quarter of the junior year and before the student registers for other courses. In the academic subjects arrangements should be made through the director of student teaching, and in the special subjects through the major advisers.

MAJORS AND MINORS IN ACADEMIC SUBJECTS

BOTANY

Major adviser, Professor W. S. Cooper

For curriculum in natural science, see pages 66-67.

Botany as a major subject:

Course No.	Title	Credits
Bot. 1-2-3 or	General Botany	10
Bot. 4-5	General Botany	10
Bot. 10 or	Minnesota Plant Life	3
Bot. 52	Elementary Taxonomy	3
Bot. 12	Plants Useful to Man	3
Bot. 50	General Plant Ecology	3
Bot. 51	General Plant Physiology	4
Bot. 53	Introductory Plant Anatomy	3
Bot. 54	Survey of the Plant Kingdom	3
Total credits		31

Botany as a minor subject:

Bot. 1-2-3 or 4-5; 10 or 52, 12 and 3 additional credits.

CHEMISTRY

Major adviser, Professor Palmer O. Johnson

For curriculum in natural science, see pages 66-67.

Chemistry as a major subject:

Course No.	Title	Credits
Inorg.Chem. 9-10	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
Additional credits		9 or 10

Chemistry as a minor subject:

Inorg. Chem. 9-10, 12; Anal. Chem. 7; six additional credits in chemistry.

Students without entrance credits in chemistry register for Inorg. Chem. 6-7 instead of 9-10.

ENGLISH

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

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
Speech 1-2	Fundamentals of Speech	6
Additional credits in courses numbered 100 or above		3
Total credits		40

NOTE. Majors in English are required to take Ed.C.I. 122, Literature for Adolescents, 2 credits, which is counted in the professional requirement.

English as a minor subject:

Course No.	Title	Credits
Eng. 22-23	Introduction to Literature	10
Eng. 55-56	Shakespeare	6
Eng. 73-74	American Literature	6
Comp. 27-28	Advanced Writing	6
Total credits		28

GEOGRAPHY

For curriculum in social studies, see pages 96-97.

Geography as a major subject:

Twenty-eight credits from the following courses:

Course No.	Title	Credits
Geog. 11	Human Geography	5
Geog. 41	Geography of Commercial Production	5
Geog. 43	Political Geography	5
Geog. 47	Geography of Minnesota	3
Geog. 53	Historical Geography of North America	3
Geog. 71	Geography of North America	3
Geog. 101	Geography of Europe	3
Geog. 102	Trade Routes and Trade Centers	3
Geog. 103	Geography of Africa	3
Geog. 104	Geography of Australasia	2
Geog. 110	Geography of South America	3
Geog. 111	Cartography and Graphic Representation	3
Geog. 120	Geography of Asia	3
Geog. 125	Geography of the Polar Regions	3
Geog. 133	Climatology	3
Geog. 241	Field Course	3
Geog. 251-252-253	Seminar in Geography	3
Five or six additional credits from the following courses in geology:		
Geol. 1-2	General Geology (Physical and Historical)	6
Geol. 8	Earth Features and Their Meaning	5
Total credits, minimum		33

Geography as a minor subject:

Eighteen credits selected from the following courses:

Geog. 11 or 41 (preferably 11), 53, 71, 101, 102, 103, 104, 110, 120

GERMAN

Major adviser, Professor O. C. Burkhard

German as a major subject:

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 German Literature	3
Additional credits in courses numbered 50 or above		12
Total credits		35

German as a minor subject:

Ger. 50-51-52	Composition	6
Ger. 58	German Pronunciation	2
Additional credits in courses numbered 50 or above		8
Total credits		16

HISTORY

Major adviser, Professor A. C. Krey

For curriculum in social studies, see pages 96-97.

History as a major subject:

Total number of credits 45

At least 18 credits must be in Senior College courses.

History as a minor subject:

A minimum of 18 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.

JOURNALISM

Minor adviser, Assistant Professor Fred L. Kildow

Journalism as a minor subject:

Course No.	Title	Credits
Jour. 11	Introduction to Reporting	3
Jour. 41	Editing for Nonmajors	3

Twelve credits in Senior College courses, including Jour. 69 and 82, and two additional courses. Courses 55 and 103 or 109-110 are recommended. Ed.T. 74, Teachers Course in Journalism, is also required.

LATIN

Major adviser, Professor J. L. Heller

Latin as a major subject:

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. 51	Selected Readings from Prose and Poetry	3
Lat. 73	Prose Composition	2
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, 11, 12, and 51. Students entering the University with one year of high school Latin will take Courses 3, 11, 12, and 51. Students entering with two years of Latin will take 11, 12, and 51. Students entering with three years of Latin will take 12 or 51. Students with four years of high school Latin may enter 81-82-83 directly.

MATHEMATICS

Major adviser, Professor W. L. Hart

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

† 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.

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 Math. 7.

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
Total credits		33

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.

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
Total credits		23

PHYSICS

Major adviser, Professor J. W. Buchta

For curriculum in natural science, see pages 66-67.

Physics as a major subject:

Prerequisite: Math. 15-16, Elementary Mathematical Analysis, or equivalent.

Course No.	Title	Credits
Phys. 7-8-9	General Physics	15
Phys. 107-109-111	Modern Physics	9
Additional credits selected from the following:		
Phys. 110-112	Modern Experimental Physics (3 cred. per qtr.)	} 9
Phys. 134	Experimental Optics (3 cred.)	
Phys. 136	Spectrum Analysis (3 cred.)	
Phys. 144	Electricity Measurements (3 cred.)	
Total credits		33

Physics as a minor subject:

Phys. 7-8-9	General Physics	15
Additional credits selected from the following:		
Phys. 107-109-111	Modern Physics (3 cred. per qtr.)	} 6
Phys. 134	Experimental Optics (3 cred.)	
Phys. 136	Spectrum Analysis (3 cred.)	
Phys. 144	Electricity Measurement (3 cred.)	
Total credits		21

POLITICAL SCIENCE

Major adviser, Associate Professor E. M. Kirkpatrick

For curriculum in social studies, see pages 66-67.

† 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.

Political Science as a major subject:

Thirty-six credits including:

Course No.	Title	Credits
Pol.Sci. 1-2-3	American Government and Politics	9

Additional courses in Political Science to the extent of 27 credits, including 7 or 9-10 or 15 or 25 and 18 credits in Senior College courses.

Political Science as a minor subject:

Eighteen credits including:

Course No.	Title	Credits
Pol.Sci. 1-2-3	American Government and Politics	9

Additional courses in Political Science to the extent of 9 credits, including either 7 or 9-10 or 15 or 25. At least 6 credits must be in Senior College courses.

PUBLIC HEALTH

Major advisers, Associate Professor Ruth E. Grout, Stewart C. Thompson, M.D.

Public Health as a minor subject:

Course No.	Title	Credits
P.H. 50	Public and Personal Health	3
P.H. 51	Community Hygiene	3
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	Elements of Physiology	4
or		
Physiol. 4	Human Physiology	4
or		
P.H. 91-92	Principles of Human Function	6
Total credits		23 or 25

ROMANCE LANGUAGES

Major adviser, French: Assistant Professor H. E. Clefton

Spanish: Associate Professor W. T. Pattison

French as a major subject:

Thirty-five 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	French Composition }	6
and		
French 54	French Conversation }	
or		
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:

Seventeen credits in courses numbered above 4, including 70-71-72 or 73-74.

Spanish as a major subject:

Thirty-five credits in courses numbered above 4 including:

Course No.	Title	Credits
Span. 65-66-67	Survey of the Literature of Spain	9
or		
Span. 68-69	Survey of the Literature of Spain	10
or		
Span. 74-75-76	Survey of the Literature of Latin America	9
Span. 53	Spanish Composition	} 6
and		
Span. 54	Spanish Conversation	
or		
Span. 20	Oral and Written Spanish	5
Span. 55	Spanish Conversation	3
Span. 60	Advanced Spanish Composition	3

At least eight credits chosen from the following:

Span. 56	Spanish Phonetics and Diction	5
Span. 71-72-73	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:

Seventeen credits in courses numbered above 4, including Span. 65-66-67 or 68-69 or 74-75-76.

SOCIOLOGY

Major adviser, Professor Clifford Kirkpatrick

For curriculum in social studies, see pages 96-97.

Sociology as a major subject:

Thirty-six credits including 1, 2, and 14.

Course No.	Title	Credits
Soc. 1	Introduction to Sociology	5
Soc. 2	Intermediate Sociology	5
Soc. 14	Rural Sociology	3
Additional credits	.....	23

Students majoring in sociology must complete two teaching minors in addition to the required professional courses. 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:

Nineteen or twenty credits including Soc. 1, 2, and 14.

SPEECH

Major advisers, Professors Bryng Bryngelson, Howard Gilkinson;
Associate Professor Frank M. Whiting

For curriculum in speech pathology, see pages 96-97.

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 85	Introduction to Speech Correction	3
Speech 101-102	Argumentation and Persuasion	6
Total	.....	41 or 42

* Students are advised to take Psy. 4-5 or 7. Students expecting to major in Speech should consult a major adviser as early as possible in their Junior College course.

Speech as a minor subject:

A minimum of 27 credits including Speech 1-2-3 or 5-6; and eighteen additional credits chosen in conference with the adviser. Differential sequences are recommended according to whether the student is primarily interested in general speech, the theater, or speech pathology.

Students majoring in speech may substitute the following courses for Speech 71-72-73: Speech 34, Stagecraft—Construction and Painting; Speech 91-92-93, Stage Design, Stage Lighting; Speech 111-112-113, Stage Direction. It is to be understood that no student may receive credit for these courses *and* Speech 71-72-73.

Speech majors are required to have two minors. Because of the close relation between English and speech in the high schools in Minnesota, one of the minors must be in English. English majors minoring in speech must complete a second minor.

All students majoring or minoring in Speech, must present satisfactory evidence of interest and effective participation in one or more activities, such as debating, dramatics, oratory, public reading, or public speaking.

Students intending to take further work in speech correction, specializing in that field of speech alone, should include in their undergraduate course Physiology 4.

Students majoring in speech must register for Ed.T. 66Am, The Teaching of Composition in Secondary Schools, 2 credits, or for Ed.T. 66Bm, The Teaching of Literature in Secondary Schools, 2 credits, as well as for Ed.T. 88A-B-C, Methods and Directed Teaching in Speech, 11 credits.

ZOOLOGY

Major adviser, Professor J. E. Wodsedalek

For curriculum in natural science, see pages 66-67.

Zoology as a major subject:

Course No.	Title	Credits
Zool. 1-2-3	General Zoology	10
Zool. 52	Introductory Entomology	5
Zool. 53	Faunistic Zoology	5
Zool. 75	Nature Study	3
Zool. 83	Introduction to Genetics and Eugenics	3
Physiol. 4	Human Physiology	4

With the approval of the major adviser, other courses in the department may be substituted for Zool. 52 and 53.

Zoology as a minor subject:

Minimum of 18 credits including Zool. 1-2-3, 53, and 75.

SPECIALIZED CURRICULA

ADMINISTRATION AND SUPERVISION

See statements under Curriculum and Instruction and Educational Administration. See also *Bulletin of the Graduate School*.

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, and Home Economics, or equivalent from the Technical Agriculture Curriculum, may prepare to teach agriculture in the public schools by completing the junior and senior years in a combined curriculum of the College of Education and the College of Agriculture, Forestry, and Home Economics leading 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, and Home Economics.

2. This curriculum requires 204 credits for graduation, including a distribution of minimum credits as follows: Agr.Biochem., 5; Agr.Econ., 17; Agr.Ed., 23; Agr.Eng., 18; Agron., 15; An. and Poult.Husb., 20; Bact., 5; Bot., 6; Chem., 8; Dy.Husb., 8; Ed., 3; Ent., 5; Hort., 6; Math., 5; Orientation, 1; Pl.Path., 8; Public Health, 5; Rhet., 15; Rural Soc., 3; Soils, 6; Vet.Med., 3; Zool., 6.

3. 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. 6, 14, 15, 33, 38, 41; Agron. 21, 23, 31; An.Husb. 56, 57 or Dy.Husb. 103, 112 or 113; Poult.Husb. 1 and an elected course; Dy.Husb. 1 and two elected courses; Ent. 5; Hort. 6 and For. 10 or an elected course; Pl.Path. 1, 3; Soils 4, 5; Vet.Med. 52; Zool. 14-15.

4. 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. 6	Farm Buildings	4
Agr.Eng. 38	Farm Water and Sewage Disposal	2
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. 6	Fruit Growing	3
Inorg.Chem. 1-2	General Inorganic Chemistry }	8
	or	
Inorg.Chem. 4-5	General Inorganic Chemistry }	

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

Course No.	Title	Credits
Math. 1§ or Agr.Eng. 11	Higher Algebra	5
Orient. 1	Applied Mathematics	
Rhet. 1, 2, 3	Freshman Orientation Lectures	1
	Rhetoric I, II, III	9

SOPHOMORE YEAR

Agr.Biochem. 1	Introduction to Organic Chemistry and Biochemistry	5
Agr.Econ. 1, 2	Principles of Economics I, II	8
Agr.Eng. 41	Metal Work	3
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
P.H. 4 or 51¶	Health Problems of the Community or Community Hygiene	2 or 3
Soils 4	Soils	3
Soils 5	Soil Management	3
Zool. 14-15	General Zoology	6

JUNIOR AND SENIOR YEARS

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

Special attention of every student is called to the faculty regulations for classification in the junior class, see *Bulletin of the College of Agriculture, Forestry, and Home Economics*.

It is recommended that the student keep in mind the possible completion of majors or minors in some agricultural groups.

Junior Year

1. Freshman-sophomore courses not completed. See *Bulletin of College of Agriculture, Forestry, and Home Economics* for requirements for classification in the junior class.

Course No.	Title	Credits
2. Rhet. 51	Exposition	3
3. Social science requirement.		
4. Education courses:		
Ed. 55B	Introduction to Secondary School Teaching	5
Agr.Ed. 54	Rural Education and Community Leadership	2
Agr.Ed. 81	Teaching Agriculture	3
5. Agricultural courses:		
Agr.Econ. 102	Farm Organization	3
Agr.Econ. 103	Farm Operation	3
Agr.Eng. 14	Farm Power and Machinery	4
Agron. 21	Grain Crops	4
An.Husb. 56	Livestock Feeding	3
An.Husb. 57	Livestock feeding	3
or Dy.Husb. 103	Dairy Stock Feeding	
Pl.Path. 1	Plant Pathology	5
Rhet. 22	Public Speaking	3
Vet.Med. 52	Anatomy, Physiology, and Hygiene of Domestic Animals	3
6. Public Health requirements:		
P.H. 59	Health of the School Child	3

§ Students will be exempt from Math. 1 who pass an exemption test given by the Department of Mathematics. For exemption the student will be required to substitute an equivalent number of credits (mathematics or electives) as approved by his adviser.

¶ See page 12.

Senior Year

Course No.	Title	Credits
1. Education courses:		
Agr.Ed. 82	Methods in Teaching Agriculture	3
Agr.Ed. 91	Supervised Teaching Experience	6
Agr.Ed. 101	Adult Education in Agriculture	3
Agr.Ed. 103	Facilities and Materials	3
Agr.Ed. 104	Planning Programs	2
2. Agricultural courses:		
Agr.Eng. 15	Electricity in Agriculture	2
Agr.Eng. 33	Introduction to Soil and Water Control	3
Agron. 23	Forage Crops	4
An.Husb. 112	Animal Breeding	}
or		
An.Husb. 113	Livestock Management }	3
Soc. 14	Rural Sociology	3

Recommended Electives

Electives Recommended To Meet Arca Requirements for Graduation

- Agricultural Economics—3 credits. Suggested courses: 8, 40, 50, 80, 144.
- Animal Husbandry or Poultry Husbandry—3 credits. Suggested courses: An.Husb. 3, 4, 51, 112 or 113. Poul.Husb. 153.
- Dairy Husbandry—5 credits. Suggested courses: 3, 101, 103, 104.
- Horticulture—3 credits. Suggested courses: 1, 21, 22, 32, 135, or For. 10.

Free Electives Recommended

Agr.Biochem. 5 or 6	Ed.Psy. 120, 133	Pub. and Rural Jour. 53
Agr.Ed. 56	H.Ed. 74	Rhet. 12, 24
Agron. 22, 132, 13	For. 10	Vet.Med. 50, 51

FIFTH YEAR LEADING TO THE MASTER OF EDUCATION DEGREE

(A joint curriculum between the College of Education and the College of Agriculture, Forestry, and Home Economics.)

The College of Education and the College of Agriculture, Forestry, and Home Economics 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. The specific requirements for the M.Ed. degree 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. In the courses comprising the fifth year of the curriculum, a B average (2 honor points per credit) is required.
4. Satisfactory completion of final written and oral examinations.
5. A satisfactory report on a health examination within one year prior to obtaining the M.Ed. degree will be required.
6. 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 co-ordinated 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 41-48).

Suggested Courses

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 3 or 5	
Agr.Ed. 56	Rural Youth Leadership		
Agron. 1	General Farm Crops	3	
An.Husb. 1	Livestock Production	4	
Hort. 1 or Hort. 56 or Hort. 32	General Horticulture } Plant Propagation } Vegetable Growing }	} 3	
Dy.Husb. 1	Elements of Dairying		3
For. 10	Farm Forestry		3

ART EDUCATION

Major advisers, Professor Clifton Gayne, Jr.; Associate Professor Marie Lien;
Instructor Richard Wiggin

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 painting, design, sculpture, crafts, commercial art, illustration, appreciation and understanding, or some other phase of art. 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, plus the "high school standard special" certificate awarded by the State Department of Education for teaching 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, in addition to broader understanding and increased skill in those areas chosen for specialization.

Emphasis of the department—The function of general education is to contribute in every possible way to the growth of rich and many-sided personalities capable of individually and socially satisfactory participation in the many aspects of modern democratic living. The function of art education should be based on the needs of general education and accordingly not only significantly enrich the curriculum and liberalize formal education but vitalize the immediate and potential personal life of all students and awaken them to social responsibility. Therefore, the art teacher must be acquainted not only with the current approaches in art education but also must know these in relation to developments in general education.

Furthermore, in contrast to widespread practices in art education, the future lies in reaching large masses of the people, developing attitudes and providing techniques for achievement of these new understandings. At present there are active new channels being organized to reach the people at large through such quasi-public institutions as educational departments of museums, art departments of libraries, adult education programs of labor unions, radio, and periodical art de-

partments. All teacher candidates must be informed regarding these new departures and be qualified to co-ordinate their values with the public school program. For the specially trained and qualified, further opportunities are being developed in art education for professional training leading to affiliation with these programs.

The resources of the many departments and special services at the University are freely available to Art Education majors who wish to develop special interests and relationships. The fifth year program is based on the growing necessity of training art educators who are well-informed general educators widely acquainted with social problems.

*Minimum Requirements for the Bachelor of Science Degree
with a 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	The Teaching and Supervision of Art	12
Total		29

2. Art courses:

Art 1	Introduction to Art	4
	Design courses, including 6 credits at Senior College level	15
	Drawing and painting courses, including 6 credits at Senior College level	12
	Craft courses, including 6 credits at Senior College level	12
	Art History	3
	Additional electives in art	0-15

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:

Com. 1-2-3	Communication (or Comp. 4-5-6, Freshman Composition or Eng. A-B-C, Freshman English or exemption)	9
	Additional courses in writing or literature	9
Hum. 1-2-3 or	Humanities in the Modern World }	9-15
Hist. 1-2-3	Civilization of the Modern World }	
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 or exemp- tion. See page 12.)	3 to 7

6. Electives to complete the total of 186 credits.

Additional academic electives 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 spent profitably in the various art courses beyond the minimal requirement or 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.

† For courses acceptable as electives in education, see statement on page 22.

A Recommended Program

For the First Four Years of the Five-Year Curriculum or for the B.S. Degree

Art and Art Education courses:

Course No.	Title	Credits
ArtEd. 14	Introduction to Art Education	2
Art 1	Introduction to Art	4
Art 4, 5	General Design	6
Art 20, 21	Drawing and Painting I	4
Art 33	Sculpture I	3
Art 10	Photography	3
Art 43, 44	General Crafts	6
	Courses to meet the General Education requirement under 5 above, and courses in minor	
	General electives	
	Courses in Public Health	
	Physical Education	
Art 50	Pictorial Composition	2
Art 53	Industrial Design I	3
Art 60	Drawing and Painting II	2
Art 67	Modern Painting and Sculpture	3
Art 83	Sculpture II	3
Art 87	Weaving	3
Art 93	Ceramics I	3
ArtEd. 56, 57, 58	Basic Principles and Experience in Art Education	15
ArtEd. 86, 87, 88	The Teaching and Supervision of Art	12
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. See page 12.)	3
	Courses to complete minor	
	Electives in Art	
	General electives	
Total	.....	186

Requirements for a Minor in Art Education

Plan 1. For Elementary School Teachers:

Course No.	Title	Credits
ArtEd. 17, 18, 19	Survey of Art in Life and Education	9
Art 4	General Design	3
Art 20	Drawing and Painting I	2
Art 43	General Crafts	3
ArtEd. 84	Teaching of Art in the Elementary School	3
	Electives in Art, including one course at the Senior College level	7
Total	.....	27

Plan 2. For Secondary School Teachers:

ArtEd. 14	Introduction to Art Education	2
Art 1	Introduction to Art	4
Art 4	General Design	3
Art 20	Drawing and Painting I	2
Art 43	General Crafts	3
ArtEd. 56, 57	Basic Principles and Experience in Art Education	10
ArtEd. 87	The Teaching of Art	2
	Electives in art, including one course at the Senior College level	2 or 3
Total	.....	28-29

FIFTH YEAR LEADING TO THE MASTER OF EDUCATION DEGREE

General Requirements for Five-Year Program

1. Ninety quarter credits in academic fields.
2. A teaching minor in an academic field and a methods course in the minor.
3. A broad major field (not subject) specialization.
4. Thirty-five quarter credits in education including one quarter of internship under a master teacher.
5. Total number of credits to equal 45 beyond the number required for the Bachelor's degree. These 45 credits must be in courses numbered above 100.
6. B average (2.0 honor points per credit) for the courses comprising the fifth year of the curriculum.
7. Successful completion of final written and oral examinations.
8. Satisfactory demonstration of teaching competence.

Minimum Requirements for Fifth Year

	Credits
1. Academic courses in minor or related fields	12
2. Art education major (including advanced courses in art)	24
3. Education courses	9
4. Quality standard: B average in fifth year work.	
5. Final examinations: (1) written comprehensive in the major; (2) written comprehensives in education; (3) certification of demonstrated competence in teaching by director of student teaching, including an examination in methodology; (4) oral examination by Graduate Committee of College of Education and representatives from Art Education Department.	

For Graduates of Other Institutions—The fifth-year program leading to the M.Ed. degree is open to students from other institutions with 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 outlined above. Requirements are as follows:

1. 24 credits selected from graduate courses in art education, art, and related fields.
2. 9 credits in related courses in academic fields. Of these Soc. 106, City Planning (same as Arch. 104, Econ. 111, and Pol.Sci. 123), 3 credits is highly recommended.
3. 12 credits in education courses, to represent at least three fields.
4. Quality standards and examinations as listed under Minimum Requirements.

BUSINESS AND DISTRIBUTIVE EDUCATION

Major Advisers, Professor Ray G. Price;
Assistant Professor Warren G. Meyer

The following curricula are designed to prepare teachers of business subjects in secondary schools. Completion 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 bookkeeping, may be exempt from Econ. 22, and admitted to Econ. 23, 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 Group 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 certain required sequences. Exemption from certain courses may be made in individual cases upon petition approved by the adviser and Students' Work Committee.

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
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*	Public Health	4
Econ. 3	Elements of Money and Banking	5
Econ. 5	Elements of Money and Banking	5
Econ. 6-7	Principles of Economics	10
Econ. 22-23	Principles of Accounting	8
Econ. 32	Beginning Typewriting	1
Phys.Ed.	Physical Education	3-5

JUNIOR AND SENIOR YEARS

College of Education

Ed. 55A-B	Introduction to Secondary Education	10
B.A. 51-53	Business Law	6
B.A. 77	Survey in Marketing	3
Econ. 161	Labor Problems and Trade Unionism	3
H.Ed. 180	The School and the Social Order	3
Ind. 110	Vocational Guidance	3
or		
Ed.Psy. 133	Basic Procedures in Student Personnel Work	3
P.H. 59	Health of the School Child	3
Total basic group requirements		102-104

Major Sequences

1. Office and Basic Business Education—

	Basic Group	102-104
Econ. 33	Intermediate Typewriting	1
Econ. 34	Typewriting Procedures	2
Econ. 37-38-39	Shorthand	9
Econ. 40-41	Secretarial Procedures	6
Econ. 43	Shorthand Theory	2
B.A. 93	Accounting Laboratory	1
B.A. 96	Business Equipment Laboratory	1
B.A. 86	Office Management	3
Ed.T. 73A-B-C	The 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
Total		186

* See page 12 for information on Health Education requirements including exemption examinations.

For the purpose of computing the C+ average (1.5 honor points per credit) the following are considered major courses: Econ. 22-23, 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 Group	102-104
Ind. 40	Analysis	2
Ind. 42	Course Organization	2
Ind. 60	Philosophy of Vocational Education	2
H.E. 2	Textiles	3
B.A. 183	Practice Course (Supervised Work Experience)	9
B.A. 69	Retail Store Management	3
Psy. 56	Psychology of Advertising	3
B.A. 88	Advertising	3
Econ. 178	Economics of Consumption	3
B.A. 182C	Senior Topics: Marketing (Retailing)	3
B.A. 72A-B-C	Teaching of Distributive Education Subjects	6
Ed.C.I. 137	Materials and Methods in Distributive Education Programs	3
Ed.C.I. 136	Organization and Supervision of Distributive Education Programs	3
Ed.C.I. 139	Coordination Techniques in Business Education	3
	Electives	31-33
Total		186

For the purpose of computing the C+ average (1.5 honor points per credit) the following are considered major courses: Econ. 22-23; B.A. 77, 69, 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. 2, Textiles; Psy. 56, Psychology 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. 22-23, 34, 40-41; B.A. 86, 69, 182C; Ed.C.I. 139.

Those desiring to qualify for vocational certification under the federal acts must have: Ind. 40, Analysis; Ind. 42, Course Organization; 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. 22-23, 34, 40-41, 43; B.A. 86, 96, 182C; Ed.C.I. 139.

Electives

Junior College—The following are especially recommended: Consumer Education, Science, Speech, Social Science, the Home and Its Furnishings, Geography, Journalism, English, Philosophy, Humanities.

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.

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*.

FIFTH YEAR 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 with a major in education or curriculum and instruction and a supporting minor in English under Plan A or Plan B in the Graduate School. 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.

FIFTH YEAR 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 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 in social studies.

FIFTH YEAR 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 adviser in natural science.

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. (See *Bulletin of the Graduate School*.)

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 Ph.D. degree see *Bulletin of the Graduate School*.

EDUCATIONAL PSYCHOLOGY

Major advisers, Professors G. Lester Anderson, Guy L. Bond, Walter W. Cook, Marcia Edwards, Palmer O. Johnson, C. Gilbert Wrenn; Associate Professors Willis E. Dugan, 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, KINDERGARTEN, AND NURSERY SCHOOL EDUCATION

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

Curricula in elementary education are for eight different groups of students.

Curricula IA, IIA, and ID (for men) are for students who expect to work in the elementary schools and entitle the graduate to the Minnesota *elementary school advanced certificate*. These curricula prepare for:

1. General elementary school teaching (all grades: primary, intermediate, or upper grades).
2. Elementary school principalships and elementary school supervisorships in Minnesota, if or when two years of elementary school teaching experience

has been completed, *provided* the student has included the necessary courses in administration and supervision in his program.

3. Junior high school teaching when so endorsed after certain modifications, as specified later, have been made.

Curricula IB and IIB prepare for nursery school, kindergarten-primary teaching and entitle the graduate to the Minnesota special *kindergarten-primary* certificate.

Curriculum IC is for students who already hold a Bachelor's degree from a liberal arts college and who wish to qualify for the Minnesota *kindergarten-primary* certificate.

Curriculum IE is for students who already hold a Bachelor's degree and who wish to qualify for the *elementary school advanced* certificate.

The two four-year curricula constitute also the first four years of five-year programs for more intensive specialization in elementary teaching, general grade supervisorships, elementary school principalships, critic teaching or supervision of student teaching in teacher training institutions, nursery school, kindergarten and primary teaching and for instructors of elementary education in teachers colleges and other institutions.

Curricula IA and IB (Freshman and Sophomore Years)

For students who will spend the first two years largely or entirely in academic or pre-education junior college work and who wish to qualify for the advanced elementary school certificate by majoring in elementary education in Curriculum IA in the junior and senior years; or who wish to qualify for the Minnesota special nursery school-kindergarten-primary certificate by continuing in Curriculum IB for the junior and senior years.

General Minimum Requirements for Curricula IA and IB*

Course No.	Title	Credits
Com. 1-2-3	Communication (or Comp. 4-5-6 or Eng. A-B-C or exemption)	9
Geog. 11	Human Geography	5
Nat.Sci. 7-8-9	General Biology (or General Botany, General Zoology, or both) total minimum required	10
Sp. 1-2 or 5	Fundamentals of Speech	5 or 6
Soc. 1	Introduction to Sociology	5
Soc. 2 or	Intermediate Sociology	5
Soc. 49	Social Problems	3
Soc.Sci. 1-2-3	Introduction to Social Science (or history, political science, economics)	12
ArtEd. 17-18-19	Survey of Art in Life and Education (6 credits required in Curriculum IB, 9 recommended)	9
Ind. 11	Special-Class Woodwork	2
Mu. 1	Ear Training	2
Mu. 31 or 32 or 33	Music Appreciation	2
Mu.Ed. 50A	Teaching Music in the Primary Grades	2
Psy. 1-2	General Psychology	6
H.E. 30	Introduction to Nutrition	2
Phys.Ed. 1-4	General Course in Physical Education	5
Phys.Ed. 25	First Aid† (not required in Curriculum IA)	1
Phys.Ed. 60	Principles of Play	3
P.H. 3§	Personal Health	2
P.H. 4§	Health Problems of the Community	2
	Electives	5-8
Total		96

* See Curriculum ID for men.

† The Red Cross First Aid certificate will be accepted as a substitute for this course.

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

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

Students transferring from teachers colleges with 90 blanket credits should follow Curriculum IIA or IIB.

Certain deficiencies due to transfer from other schools can be made up after entering the College of Education. Certain substitutions can be made. 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 (Junior and Senior Years)

For those who wish to secure the Minnesota elementary school advanced certificate qualifying the holder to teach in any of the grades 1 to 8, inclusive; and when so endorsed, after certain modifications as noted below, also in junior high school. After two years of successful experience the curriculum qualifies for the Minnesota elementary school principal's and supervisor's certificate, provided the student has chosen electives in the fields of administration and supervision.

A. Academic fields—Completion of *one regular* academic minor (pages 24-30) and 18 credits of concentration in each of *two additional* fields as listed below. These fields of concentration may include, with approval of major adviser, the Junior College subject-matter courses already completed at the University of Minnesota or elsewhere.

English	A natural science or preferably general science
A foreign language	Mathematics
Geography	Art
History	Music
A social science other than history or geography, or preferably, general social sciences other than history or geography	Library Methods Physical Education Others by special permission of adviser

Much of the work of the junior year should be in the above academic subjects. A total of 18 credits in academic subjects must be in courses numbered 50 or above.

B. General and elementary education—A major of 48 credits.

1. Required of all—48 credits.

Course No.	Title	Credits
Ed. 71A-B-C	Introduction to Elementary School Teaching: 71A, Individual Differences; 71B, Learning and Adjustment; 71C, Curriculum, Methods, and Organization	15
ArtEd. 84	Teaching of Art in the Elementary Grades	3
Mu.Ed. 50B	Teaching Music in the Intermediate Grades	2
P.H. 59	Health of the School Child	3
Ed.C.I. 60	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. 62A	The Teaching of Arithmetic in the Primary Grades	2
or		
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	2
Ed.T. 54A-B	Directed Teaching in the Elementary School	8

2. H.Ed. 180, The School and the Social Order and 2 or 3 credits chosen from the courses listed under *General Courses* or *Elementary Education* in the departments of Curriculum and Instruction, Educational Administration, Educational Psychology, and History and Philosophy of Education, in consultation with an adviser. Descriptions of the various courses are found on pages 108-119 of this bulletin.

The C+ average is based on the 46 credits in elementary education. (All the courses listed above under 1 and 2 except P.H. 59.)

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. See list of academic minors, on pages 24-30, and minors in the special departments.

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 some of the other methods courses on the recommendation of the adviser.

4. Directed teaching in grades 7, 8 or 9, 2 or 3 cred., in addition to directed teaching in the elementary school.

Curriculum ID (for men)

For men who wish to secure the Minnesota elementary advanced certificate qualifying the holder to teach grades 1 to 8 inclusive; and when so endorsed, after the modifications indicated, also in junior high schools. After two years' experience the curriculum qualifies for the Minnesota elementary school principal's or supervisor's certificate, provided the student has elected courses in the fields of administration and supervision.

Curriculum ID is the same as Curriculum IA except for certain modifications. See pages 42-44. The changes are as follows:

Freshman and sophomore years—Omit Mu. 1, Mu. 31, 32, or 33, Mu.Ed. 50A, and H.E. 30. For ArtEd. 17-18-19, 9 credits, take ArtEd. 17 or 18 or 19, 3 credits, and 6 credits in Art 43, 44, 45, General Crafts or 6 credits in Ind. 20A, 20B, Craftwork. In place of Ind. 11, take Ind. 1, Basic Woodwork, 3 credits, and Ind. 5, Basic Drawing, 3 credits. Substitute Sports Education for the General Course in Physical Education for Women, and Phys.Ed. 56, Nature and Function of Play (for men) for Phys.Ed. 60.

Junior and senior years—The course requirements for the junior and senior years are the same as for Curriculum IA. A minor in recreational leadership is recommended.

Curriculum IB (Junior and Senior Years)

For those who wish to secure the Minnesota special kindergarten-primary certificate qualifying for nursery school, kindergarten-primary teaching.

Course No.	Title	Credits
Ed. 71A-B-C	Introduction to Elementary School Teaching: 71A, Individual Differences; 71B, Learning and Adjustment; 71C, Curriculum, Methods, and Organization	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. 70	The Teacher and the Parent	3
P.H. 57	Health of Infant and Preschool Child }	2 or 3
or 59	Health of the School Child }	
Ed.C.I. 60	The Teaching of Reading in the Elementary School	3

Course No.	Title	Credits
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	2
Ed.C.I. 105	Visual Aid in Teaching	2
Ed.T. 77*	Directed Teaching in the Nursery School	4
Ed.T. 78*	Directed Teaching in the Kindergarten	4
Ed.T. 79*	Directed Teaching in the Primary Grades	4
	Electives	19-20
Total		90

The C+ average is based on the following courses: C.W. 80; Ed.T. 55, 56, 57, 58, 70, 77-78-79; Ed.C.I. 60, 61, 62A, 63, 64, 65.

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

Curriculum IC

For students who already have a B.A. or B.S. degree and who wish to receive a B.S. degree with a nursery school, kindergarten-primary certificate.†

Forty-five credits 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, Learning and Adjustment; 71C, Curriculum, Methods, and Organization	15
Ed.C.I. 60	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. 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	2
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. 58	Nursery School-Kindergarten Laboratory in Play Materials, Music and Science	5
Ed.T. 70	The Teacher and the Parent	3
Ed.T. 77*	Directed Teaching in the Nursery School	4
Ed.T. 78*	Directed Teaching in the Kindergarten	4
Ed.T. 79*	Directed 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+ (1.5 honor points) 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 must be exempted from P.H. 3 and P.H. 4 on the basis of the exemption examinations regularly given, or he must add P.H. 50, Public and Personal Health, 3 credits, to the above program.

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

† Electives may be substituted for any of these courses or their equivalent, which the student has already taken.

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 basis of Curriculum IC, the student will be recommended for the B.S. degree from the College of Education and a teacher's certificate for nursery school, kindergarten-primary school teaching.

NOTE—See statements regarding psychology and public health under Curriculum IE.

Curriculum IIA (Junior and Senior Years)

For graduates of the usual two-year advanced normal professional curriculum for elementary teachers in teachers colleges and normal schools, or its equivalent, for which 90 blanket credits (two years' work) are allowed in the College of Education toward graduation. Students who transfer from other teacher training programs for which 60 to 63 blanket credits are allowed may also enroll in this curriculum.

The curriculum leads to the elementary school advanced certificate and if or when two years of experience in elementary education have been completed, to the Minnesota state principal's or supervisor's certificate as well, *provided* the student has included the necessary courses in administration and supervision in his program. By substituting certain courses in the junior high school field the certificate is made legal also for junior high school teaching.

A. Major in elementary education—30 credits in the College of Education as follows:

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 or 190	Children's Literature Principles of Selection of Materials for Reading in the Elementary School } .....		2 or 3
Ed.C.I. 102	The Teaching of the Social Studies in the Elementary School	3
Ed.C.I. 143	The Teaching of Reading in the Elementary School	3
Ed.C.I. 149	The Teaching and Supervision of Arithmetic	2
Ed.C.I. 151	Diagnostic and Remedial Instruction	3
Ed.C.I. 153	Supervision and Teaching of English in the Elementary Schools	2 or 3
	Other courses in methods by petition.	

For junior high school endorsement the methods course in the minor must be substituted for 3 or 4 of these nine credits.

3. Education electives—To be chosen from the above or any related courses listed under General Courses or Elementary Education—6 to 7 credits.

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

NOTE—Students may be required to take Practice Teaching Ed.T. 54A-B unless evidence of satisfactory experience is presented. This is left to the discretion of the major advisers. Students are urged to plan their programs early so as not to exceed the 30 credits allowed in education.

B. Subject-matter and academic courses—60 credits. At least 18 of the 60 credits must be in courses numbered 50 or above.

1. Courses in public health: P.H. 50, Public and Personal Health, 3 cred., unless the student is exempt by examination from P.H. 3 and 4 or has had equivalent courses elsewhere; and P.H. 59, Health of the School Child, 3 cred. See page 12.

2. A *regular* minor as listed on pages 24-30 or in one of the special fields listed under the specialized curricula. Requirements for minors vary usually from 18 to 36 credits.

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 minor and major sequences of the College of Education (see pages 24-30). Transfer 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	Mathematics
A foreign language	Art
Geography	Fine Arts
History	Music
A science or general science	Library Methods
A social science or general social sciences (other than history or geography)	Physical Education
	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.

Excess quality credits earned in all courses will reduce the general elective credits in academic subjects but cannot be used to meet any specific requirement of the curriculum.

Courses in General Extension—Elementary teachers, taking extension courses, who will ultimately transfer to the College of Education for a degree, should follow the pattern of the curriculum to be certain that the work taken will apply toward graduation. They should consult an adviser in the College of Education early in their course and with regard to 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 B-1 above.

2. A methods course in the minor covering the junior high school level. This course is to be included in the nine credits in methods required under A-2. Taking the psychological examinations and C+ average (1.5 honor points per credit) in the major are prerequisite to this course.

3. The course Ed.Ad. 167, Junior High School. This course is to be substituted for Ed.Ad. 115.

4. Satisfactory directed teaching or experience in grades 7, 8, or 9.

Curriculum IIB (Junior and Senior Years)

For graduates of the usual two-year advanced normal professional curriculum for elementary teachers in teachers colleges and normal schools, or its equivalent, for which 90 blanket credits (two years' work) are allowed in the College of

Education toward graduation; and who wish to secure a degree in Nursery School, Kindergarten, and Primary Education, or who wish to prepare for teaching in the field.

A. Major in Nursery School, Kindergarten, Primary Education—40 credits in the College of Education and 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. 70	The Teacher and the Parent	3
Ed.T. 77	Directed 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:

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 in 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 Aids in Teaching	2
Ed.C.I. 119	Elementary School Curriculum	3
Ed.C.I. 130	Problems of Childhood Education	2
Ed.C.I. 143	The Teaching 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	History of Modern Elementary Education }	3
or		
H.Ed. 155	History of Education in the United States }	3
H.Ed. 176	Conflicting Issues in Modern Education	
H.Ed. 180	The School and the Social Order	3

B. Subject-matter and academic courses—50 credits. (At least 18 credits must be in courses numbered 50 or above.)

1. A regular minor as listed on pages 24-30 or in one of the special fields. Requirements for minors vary from 18 to 36 credits.

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

English	Fine Arts
A foreign language	Mathematics
Geography	Music
A science or general science	Physical Education
A social science	Public Health
Art education	Others by special permission

3. Courses in Public Health. See statement under Curriculum IIA.

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

NOTE—The C+ average (1.5 honor points per credit) is based on the 40 credits in Nursery School, Kindergarten, and Primary Education.

Curriculum IE

For students who already have a B.A. or B.S. degree and who wish to qualify for the elementary certificate advanced.

A minimum of forty-seven credits in the following courses.

Course No.	Title	Credits
Ed. 71A-B-C	Introduction to Elementary School Teaching; 71A, Individual Differences; 71B, Learning and Adjustment; 71C, Curriculum, Methods, and Organization	15
or		
Ed.C.I. 119	Elementary School Curriculum	} 15
Ed.Ad. 115	Organization of the Elementary School	
Ed.Psy. 120	Basic Principles of Measurement	
Ed.Psy. 159	Personality Development and Mental Hygiene	
Ed.Psy. 293	Psychology of Learning	} 3
Ed.C.I. 60	The Teaching of Reading in the Elementary School	
or		
Ed.C.I. 143	Teaching and Supervision of Reading in the Elementary School	} 3
Ed.C.I. 61	Teaching the Social Studies in the Elementary School	
or		
Ed.C.I. 102	Teaching the Social Studies in the Elementary School	} 3
Ed.C.I. 62B	The Teaching of Arithmetic in Intermediate Grades	
or		
Ed.C.I. 149	The Teaching and Supervision of Arithmetic in the Elementary School	} 3
Ed.C.I. 63	Children's Literature	
or		
Ed.C.I. 122	Literature for Adolescents	} 2
Ed.C.I. 64	The Teaching of English in the Elementary School	
or		
Ed.C.I. 153	Supervision and Teaching of English in the Elementary School	} 3
Ed.C.I. 65	The Teaching of Science in the Elementary School	
or		
Ed.C.I. 103	The Teaching of Science in the Elementary School	} 2 or 3
Ed.T. 54A-B	Directed Teaching in the Elementary School	
Mu.Ed. 50B	Teaching of Music in the Intermediate Grades	2
ArtEd. 17 or 18	Survey of Art in Life and Education	3
ArtEd. 84	Methods of Teaching Art in the Elementary School	3
Total		47

For *junior high school endorsement*, credits in secondary school methods in the minor will be substituted for elementary methods listed above; the requirements of 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, Directed Teaching in the Secondary School and Ed.Ad. 167, The Junior High School, 3 credits.

A grade average of C+ (1.5 honor points) 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 must be exempted from P.H. 3 and P.H. 4 on the basis of the exemption examinations regularly given, or 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 basis of Curriculum IE, the student will be recommended for the B.S. degree from the College of Education and a teacher's certificate for elementary school teaching.

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

The College of Education, in co-operation 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 co-ordinated to the best advantage. The specific requirements for the M.Ed. degree 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 curriculum; (2) in addition to the period of observation and practice teaching required for graduates in the four-year curriculum, a period of internship for which a maximum of 8 credits will be given; (3) a B average in the courses comprising the fifth year of the curriculum; (4) satisfactory completion of final written and oral examinations; (5) 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 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 (See page 16). For information in regard to the program consult the major adviser or the dean of the college.

Fifth Year in the Graduate School

Elementary School Administration and Supervision, Teacher Training, Nursery School-Kindergarten-Primary Education, or General Elementary Education

Graduates in elementary and Nursery School-Kindergarten-Primary education may take courses in the Graduate School and pursue work leading to the degrees of master of arts and doctor of philosophy.

It is recommended that as a rule students without any teaching experience teach two years or more before taking graduate work for an advanced degree. Students will select their advisers according to their specialization, interests, and needs. For the list of advisers see the introductory statement. For a statement of the general plan of graduate work in the College of Education, see the *Bulletin of the Graduate School*.

ENGLISH EDUCATION

Five-Year Program Leading to the Master of Education Degree

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

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, 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 pages 16-18 regarding work in the Graduate School.

HIGHER EDUCATION

Major advisers, Dean W. E. Peik; Professors T. R. McConnell, Ruth E. Eckert;
Associate Professor G. Lester Anderson

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 co-operation 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 co-ordinated the researches on the University's own educational problems.

HISTORY AND PHILOSOPHY OF EDUCATION

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

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 Wylle B. McNeal, Clara B. Army, Ella J. Rose

The College of Agriculture, Forestry, and Home Economics and the College of Education co-operate 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, and Home Economics. 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 clothing, foods, and other phases of home economics.
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) 1½ 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:

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 } Human Biology }	6-10

* 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 170), 40, 41.

Course No.	Title	Credits
Dy.Husb. 20	Household Microbiology (or Bact. 53)	4
Chem. 1-2 or 4-5 or 6-7 or 9-10 or	General Inorganic Chemistry	5-10
G.C. 7C	Physical Science II: The Nature of Chemistry	
G.C. 7A or	Physical Science I: Energy and Matter	5
Agr.Eng. 35	Household Physics	
Soc. 1	Introduction to Sociology	3-5
Psy. 1-2	General Psychology	6
Phys.Ed.§	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
C.W. 40 or	Child Training	3
H.E.Ed. 90	Child Training	
Rhet. 22	Public Speaking	3
Rhet. 31 or 32 or 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	Principles of Economics	5 or 10
Econ. 6-7	Principles of Economics	

JUNIOR AND SENIOR COURSES

H.E. 50	Textiles	3
H.E. 53†	Advanced Clothing	3
H.E. 85	Home Management: Operation and Maintenance, Lectures	3
H.E. 86	Home Management: Operation and Maintenance, 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 (unless exempted from the course)	3
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, and Home Economics*.

* Plans for the home experience prerequisite for H.E.Ed. 91 and 93 should be made with adviser in Home Economics Education.

† Home experience in the construction of garments is required as a prerequisite for H.E. 4 or 53. The character and amount of experience will be determined by a member of the faculty of the textiles and clothing section.

§ Three credits may be completed any time during the four years of residence.

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	Clothing Economics	3
H.E. 120	Art History and Appreciation	3
Bot. 1	General Botany	4

Teaching Foods

To the requirements in general teaching add:

Course No.	Title	Credits
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:

Course No.	Title	Credits
H.E. 24	Problems in Home Planning and Furnishing	5
H.E. 142	Experimental Cookery	3
H.E. 173	Nutrition in Disease	3
H.E. 179	Readings in Nutrition	2

Teaching Related Art

Those interested in teaching Related Art should:

- Select the minimum credit requirement in science when there is an option.
- Omit Agr.Econ. 126.
- 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 and Appreciation	3
H.E. 122	Advanced Interior Design	3
or 125	Advanced Costume Design	3
H.E.Ed. 197	Organization and Methods for Related Art Teaching	1-3

Six credits in Art including:

Art 20, 21	Drawing and Painting I	2 a qtr.
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Home Economics Extension

A combined curriculum with the College of Education. See all-college requirements for students in the College of Agriculture, Forestry, and Home Economics, page 10.

Some students will be interested in preparation for home economics positions in the Agricultural Extension Service, such as home demonstration 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 is required to 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 Demonstration staff of the 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 Methods 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 Demonstration Agents	6
H.E.Ed. 194A	Adult Education in Home Economics	3
Agr.Econ. 8 or	Rural Economics	3
Agr.Econ. 126	Economics of Consumption	3

Five-Year Curriculum in Home Economics Education 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 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 required 3 credits in Physical Education are to be chosen from the Dance (country, folk, modern, or social) and recreational games.

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, extra-curricular, and community problems met during the internship.

Requirements for a Fifth Year Leading to the M. Ed. Degree

	Credits
(1) Additional academic courses	8-24
(2) Home Economics	17-25
(3) General Education	4-9
(4) Home Economics Education	5-9
Total	45

An honor point ratio of 2 (a B average) must be attained in all fifth year work.

Satisfactory completion of the fifth year work will be determined by:

- (1) A written comprehensive examination covering home economics materials.
- (2) A written examination in education courses.
- (3) Certification of competence in teaching in the major field.
- (4) An oral examination by the Graduate Committee of the College of Education and a representative of the Home Economics Department.

FIFTH YEAR

I. Academic fields—From 8-24 credits to be selected from the following courses or from other graduate courses by petition.

Course No.	Title	Credits
Soc. 106	City Planning	3
Soc. 115	Social Aspects of Housing and Standards of Living.....	3
Soc. 120	Social Psychology	3
Soc. 140	Social Organization	3
Soc. 141	The Family	3
Soc. 160	Rural Community Organization	3
Soc. 162	Rural Social Institutions	3
Soc. 170	Social Life and Cultural Change	3
Soc. 181	Problems in Rural Social Research	2
B.A. 103-104	Advanced Economic Theory	6
Econ. 178	Economics of Consumption	3
Econ. 140	The Co-operative Movement	3

II. Home Economics—From 22-25 credits selected from the following:

H.E. 102	Advanced Textiles	3
H.E. 115	Economic and Social Aspects of Clothing	3
H.E. 120	Art History and Appreciation	3
H.E. 122	Advanced Interior Design	3
H.E. 125	Advanced Costume Design	3
H.E. 142	Experimental Cookery	3
H.E. 146	Special Food Problems	3
H.E. 179	Readings in Nutrition	2
H.E. 186	Problems in Income Management	3
H.E. 270-271	Nutrition Problems	3-6

Seminars

Course No.	Title	Credits
H.E. 209	Textiles and Clothing	1
H.E. 249	Foods	1
H.E. 279	Nutrition	1
H.E. 295-296	Home Economics Problems	1-5
H.E. 299	Home Economics Problems	1

III. Education and Home Economics Education—A minimum of 15 credits from the following :

H.E.Ed. 199	Teaching Internship	Credits arranged
H.E.Ed. 193	Home Economics Curriculum	3
H.E.Ed. 197	Organization and Methods for Teaching Related Art	3
H.E.Ed. 243	Trends in Home Economics	3
H.E.Ed. 295	Seminar in Home Economics Education	1-3
H.E.Ed. 194A	Adult Education in Home Economics	3
H.E.Ed. 194B	Adult Education in Home Economics	3
H.E.Ed. 292	Problems in Evaluation	3
H.E.Ed. 294	Research Methods	3-6
Ed.Psy. 158	Psychology of Adolescence	3
Ed.Psy. 159	Personality Adjustment and Mental Hygiene	2 or 3
Ed.Psy. 225-226	Diagnosis and Counseling	3 or 6
Ed.Psy. 293	Psychology of Learning	3
Ed.C.I. 207	Problems in Radio Education	1-6
Ed.C.I. 271	Problems in Curriculum Construction	2-3
Ed.C.I. 113	High School Curriculum	3
Ed.C.I. 169	Extra-Curricular Activities	2
Ed.C.I. 266	Supervision of High School Instruction	3
Ed.C.I. 150	Supervision and Improvement of Instruction	3
Ed.C.I. 170	Curriculum and Course of Study Construction	3
Ed.C.I. 122	Literature for Adolescents	2
Ed.C.I. 285	Professional Education of Teachers	2
Ed.C.I. 250	Higher Education in the United States	3
Ed.Ad. 133	Basic Procedures in Student Personnel Work	3
H.Ed. 101	Historical Foundations of Modern Education	3
H.Ed. 141	Critical Issues in Contemporary Education	3
H.Ed. 178	Education and Problems of American Democracy	3
H.Ed. 182	Comparative Philosophies of Education	3
Ind. 110	Vocational Guidance	3
C.W. 170	Parent Education	3

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 young men who desire to prepare for teaching positions in the fields of industrial arts 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.

Minnesota Standards for Graded Elementary and High Schools, page 35, contains the following provision:

From and after July 1, 1929, a certificate to teach general industrial education may be issued only upon a Bachelor's degree in industrial education from an institution accredited for the training of teachers of industrial arts, but the status of industrial teachers holding certificates prior to that date shall not be affected.

Certain courses of the curriculum are acceptable for Smith-Hughes and George-Barden certification, for service in trade schools and classes—day, evening, and part-time as to type. These courses should be selected only upon recommendation of the departmental adviser or the state supervisor of trade and industrial education. The latter assures himself of the vocational competence of those who desire educational 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 co-operation of officials in the State Department of Education, and requests of interested groups of instructors will be given prompt consideration. 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 who have curriculum and equipment problems upon which assistance may be desired.

The Graduate School provides the master of arts degree with major work in this field, with and without thesis, Plans A and B. The College of Education provides the more professional master of education degree under Plans X and Y. *Mimeographed pages may be secured from the major advisers, 103 TWP, which explain the entrance requirements and program patterns for both degrees.* Persons desiring to do work beyond the Master's degree are invited to confer or to correspond about status and program.

Four-Year Curriculum in Industrial Education

FRESHMAN YEAR

Course No.	Title	Credits
Com. 1-2-3	Communication (or Comp. 4-5-6 or G.C. 31A-B-C).....	9
Soc.Sci. 1-2-3	Introduction to Social Science	12
Ind. 30	Graphic Presentation	3
Ind. 1	Basic 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
Total		45

SOPHOMORE YEAR

Course No.	Title	Credits
G.C. 35	Fundamentals of Mathematics (or Math. 1, 5 credits)	4
Psy. 1-2	General Psychology	6
Geog. 11	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. 2	Machine Woodwork	3
Ind. 6	Applied General Drawing	3
Agr.Eng. 41	Metal Work	3
Agr.Eng.	Carpentry	3
Total		48

JUNIOR YEAR

Hum. 1-2-3	Humanities in the Modern World	15
Ed. 55A-B	Introduction to 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†	Directed Teaching	3
Ind. 25	Machine Shop	3
M.E.	Foundry Practice	3
Electives	Shopwork or Drawing	3
Total		48

SENIOR YEAR

H.Ed. 180	Social Problems in Education	3
P.H. 50	Public and Personal Health (or exemption by examination in in P.H. 3 and 4)	3
P.H. 59	Health of the School Child	3
Ind. 50B-C†	Directed Teaching	6
Ind. 101	Tests in Industrial Subjects	3
Ind. 110	Vocational Guidance	3
Electives	Academic	18
Electives	Shopwork or Drawing	6
Total		45
Total credits		186

NOTES

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 most 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 subjects be selected toward the completion of minors in chosen subject fields.

† 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.

Requirements above are classified as follows: 90 credits in academic subjects, 25 in Education, 26 in Industrial Education, 45 in shopwork and drawing. Total credit requirement, 186.

Credits earned in excess of 45 in shopwork and drawing will be recorded but will not be counted toward the graduation requirements.

When enrolling for a course in General College the student must file a petition requesting that credit be accepted in the College of Education.

Courses numbered 100 and above carry graduate credit if not used in completion of first degree requirements. Those numbered 200 and above are restricted to graduate students.

Other Departmental Courses

Shopwork and Drawing

Ind. 3	Shop Finishing
Ind. 7	Building Construction Drawing
Ind. 11	Special-Class Woodwork (Ladies)
Ind. 12	Electricity and Radio
Ind. 16	Advanced Graphic Arts
Ind. 21	Craft Work B
Ind. 26	Advanced Machine Shop

Classroom Type

Ind. 56	Related Subjects
Ind. 100	Industrial Instruction
Ind. 102	The General Shop (not a shop course)
Ind. 103	Instructional Aids
Ind. 105	Administration of Industrial Education
Ind. 107	Co-ordination
Ind. 108	Apprenticeship
Ind. 109	Conference Leading for Industry
Ind. 115	Supervision of Industrial Education
Ind. 125	Philosophy and Practice of Industrial Education
Ind. 135	Industrial Course Construction
Ind. 172	Part-time Education
Ind. 200	Research Problems (Independent Papers)
Ind. 250-251	Industrial Education Literature Thesis or Dissertation Trade instructor, supervisor and foreman training services

Fifth Year Leading to the Master of Education Degree

The College of Education awards the master of education degree (M.Ed.) to students who satisfactorily complete a fifth year of work in industrial education at the graduate level and who meet all the requirements of the college for the professional degree. Information may be secured from the major advisers. (See statement above also concerning M.A. and Ph.D. degrees.)

LIBRARY SCIENCE*

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

The following curricula have been arranged in co-operation 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 five-year program leading to the degree of B.S. in L.S. (bachelor of science in library science).

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

2. A four-year program leading to the degree of B.S. with a major in library science.

3. A minor in library science for students desiring to fill positions as teacher-librarians, i.e., part-time teaching in combination with part-time library work.†

In each of the first two 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 will usually be advisable for students with a major or minor in Library Science to combine with it minors or a major in English, history or social studies. Such students are required to take special methods in the teaching major or one of the minors.

Students with a major or minor in Library Science should have an adviser in the Division of Library Instruction.

Graduates of the College of Education who already have an elementary or secondary school certificate, or students who have completed the four-year course in a teachers college and already hold a Bachelor's degree and a teaching certificate may upon completion of 45 credits in Library Science be eligible for either the degree of B.S. in L.S. or the degree of B.S. with a major in Library Science. Such students *must consult the dean* of the College of Education *at the time of entrance* in order to become candidates for a degree.

An average 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.

Five-Year Curriculum for the Degree of B.S. in L.S. with a Teacher's Certificate

FRESHMAN AND SOPHOMORE YEARS

Students should enroll in the College of Science, Literature, and the Arts and fulfill the general requirements for entrance to the College of Education as given on page 9 of this bulletin, earning a total of 96 credits.

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 minors)	21
Total		45

† Although the present Minnesota requirement for a library endorsement for part-time work is 9 quarter credits, it is believed that a minor of 18 quarter credits is the minimum necessary for successful librarianship.

SENIOR YEAR

Course No.	Title	Credits
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	16
Total	.....	43

FIFTH YEAR

Lib.Sci. 53	School Library Administration and Practice	4
Lib.Sci. 56	Current Issues	1
Lib.Sci. 71	Reading Guidance for Children	3
Lib.Sci. 72	Reading Guidance for Adolescents	3
	Elective courses in Library Science	14
	Elective courses in Education	5
	Continuation of required and elective academic courses	15
Total	.....	45

*Four-Year Program Leading to the Degree of B.S.
with a Major in Library Science*

FRESHMAN AND SOPHOMORE YEARS

Students should enroll in the College of Science, Literature, and the Arts and fulfill the general requirements for entrance to the College of Education as given on page 9 of this bulletin, earning a total of 96 credits.

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	2
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	3
	Continuation of required and elective academic courses (including courses in minors)	10-15
Total	.....	45

SENIOR YEAR

Lib.Sci. 53	School Library Administration and Practice	4
Lib.Sci. 56	Current Issues	1
Lib.Sci. 71	Reading Guidance for Children	3
Lib.Sci. 72	Reading Guidance for Adolescents	3
	Elective Courses in Library Science	18
	Special Methods and Directed Teaching§	14-16
H.Ed. 180	The School and the Social Order	3
	Electives in Education (if not taken previously)	3
Total	.....	45

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

Minor in Library Science

For a minor in Library Science students should elect Lib.Sci. 53, 71 or 72 and twelve credits from the following: 60, 62, 70, 74, 82.

MUSIC EDUCATION

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

The course in Music Education is a four-year course leading to the degree of bachelor of science, in which the theoretical, practical, and methods courses in music are combined with the study of English composition, psychology, and such subjects as the College of Education demands as a definite requirement. 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 shall 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 directed teaching are required in the Minneapolis and St. Paul grade schools, and in the Minneapolis, St. Paul, and University high schools.

Courses upon which the C+ average is based are Mu.Ed. 4-5-6, 50A-B, 53, 65, 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 course:

For entrance—All students wishing to register for the course in Music Education must, upon matriculation, choose a major in applied music, and 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 and Music Education in the *Class Schedule*.

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
Mu. 1T-2T-3T-4T-5T-6T	Music Theory	21
Mu.Ed. 59	Choral Literature and Conducting	1
	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	European Civilization	9
Soc. 1	Introduction to Sociology	5
P.H. 3	Personal Health (unless exempted from the requirement by test)	2
P.H. 4	Health Problems of the Community (unless exempted from the requirement by test)	2
	Academic electives (to complete total)	
Total		96

JUNIOR AND SENIOR YEARS

Course No.	Title	Credits
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 43-44-45 or 46-47-48	Orchestra	3
	University Chorus	
	Concert Band (Maximum of 6 credits in Band)	
	Practical Music	6-12
Ed. 55A-B	Introduction to Secondary School Teaching	10
Mu.Ed. 68	Conducting of Instrumental Music and Survey of Materials	4
Mu.Ed. 60-61-62	Supervision and Teaching of Music	9
	Methods in academic minor	4
H.Ed. 180	The School and the Social Order	3
	Electives in Education†	2
P.H. 59	Health of the School Child	3
	Academic Electives (minor)	18-27
Total		90

† For statement regarding electives in education, see page 22.

**Five-Year Curriculum in Music Education
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; supervised institutional practice teaching plus one quarter of internship.

The work of the fifth year is definitely 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 (see page 14) an honor point ratio of 2 (a B average) must be attained in all fifth year work.

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.

FIFTH YEAR LEADING TO THE M.ED. DEGREE

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

II. 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

III. 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

IV. Education—6 credits elected from the following:

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	3
Ed.C.I. 150 or	Supervision and Improvement of Instruction	3
Ed.C.I. 266	High School Supervision	3

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.

Total for fifth year 45

Requirements for a 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

NATURAL SCIENCE

General adviser, Professor Palmer O. Johnson

Special advisers, Botany: Professor William S. Cooper, Chemistry: Professor Palmer O. Johnson, Physics: Professor J. William Buchta, Zoology: Professor J. E. Wodsedalek

Students preparing to teach science in Minnesota high schools should 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, for which the teacher should be trained in both biological and physical sciences. While it is possible to meet the major and minor sequences in one or more of the sciences as in other academic subjects, the following special curriculum in natural science is recommended for those persons desiring to secure the best preparation for the teaching of high school science. It requires :

- A. The completion of a sequence of a minimum of twenty-nine hours in one of the four natural sciences: chemistry, physics, botany, or zoology. This is referred to as the core subject.
- B. The completion of at least fifteen hours in another science (excepting the one chosen under A) selected from the following: physics, geology, botany, zoology, chemistry.
- C. The completion of at least nine credits in each of the remaining sciences listed under B but not selected to meet requirements A and B. In lieu of 9 credits in geology, 5 credits in geology and 5 credits in astronomy will be accepted. For graduation 10 credits in a social science are also required.
- D. Completion of Ed. 55A-B, Ed.T. 68A-B-C, H.Ed. 180 and 5 credits in education electives.

The C+ average is based on the courses in the core subject.

The requirements under A and B for the several sciences are:

Botany†

- A. Courses 1-2-3 or 4-5, 10, 12, 50, 51, 52, 53, 54.
- B. Courses 1-2-3, or 4-5, and 6 additional credits chosen from Courses 10, 12, 50, 51, 52.

Chemistry†

- A. Inorganic Chemistry 9, 10, 12 (or 6, 7, and 12 if without entrance credit in chemistry); Analytical Chemistry 7; Organic Chemistry 61-62, 63.
- B. Inorganic Chemistry 9, 10, 12 (or 6, 7, and 12).

Physics†

- A. Courses 7-8-9, 107-109-111, and five credits of approved electives.
- B. Courses 7-8-9.

Zoology†

- A. Courses 1-2-3, 52, 53, 75, 83, and Physiology 4.
- B. Courses 1-2-3, 53, and 75.

Requirements for a Minor in Natural Science

The requirements for a minor in natural science are:

1. The completion of at least 15 specified quarter hours in one of the four natural sciences: botany, chemistry, physics, or zoology.
2. The completion of at least 9 quarter hours in each of the remaining sciences listed above under A not selected to met the requirement in 1. In addition 9 credits in geology, or 5 credits in geology and 5 credits in astronomy, are required.
3. Completion of 68Am-Bm, The Teaching of Secondary School Science.

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

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. The work of the fifth year is based on the four-year curriculum and follows the pattern of work for the M.Ed. degree. For specific information confer or correspond with the major adviser.

See also page 16.

NURSERY SCHOOL AND KINDERGARTEN EDUCATION

See Elementary Education Curricula IB and IIB and IC, pages 44-48.

NURSING EDUCATION AND PUBLIC HEALTH NURSING

Major adviser, Professor Katharine J. Densford

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.

† For titles of courses see pages 24-30.

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

Students in this curriculum are required to complete 186 credits for graduation. Students are admitted to this curriculum directly from secondary school or by transfer from an accredited college or junior college. The curriculum is divided into three parts as follows:

Part I. Five quarters in the College of Science, Literature, and the Arts either in the University of Minnesota or some other accredited university or college.

Part II. Ten quarters in the School of Nursing.

Part III. Three quarters in the College of Education.‡

Part I: College of Science, Literature, and the Arts (Five Quarters)

During the first five quarters the student must complete 75 credits and enough of the required courses listed below so that *all* required courses will be completed by the end of the sixth quarter (first quarter in the School of Nursing). Preferably not more than 12 credits of *required courses* including Nursing 12, 3 credits, Nursing 1, 1 credit, and Pharmacology 8a, 1 credit, should be left for the sixth quarter. The student must earn an average of one honor point per credit (C average) for total credits in the prenursing period.†

A. Required courses to be completed by the end of the 6th quarter.

	Credits
Communication 1-2-3 or English A-B-C or 4-5-6, or exemption.....	9 or 15
Chemistry 1-2 or 4-5 or 6-7	8 or 10
Zoology 14-15 or 1-2-3	6 or 10
Sociology 1	5
Sociology 49	3
Psychology 1 and 2	6
Child Welfare 40 or Home Economics Education 90	3
Public Health 3	2
Anatomy 4	5
Physiology 50	4
Physiology 60	6
Bacteriology 53* or 101 and 102	5 or 9
Home Economics 31* or 30	3 or 2
Physical Education	5
Nursing 1, first quarter in the School of Nursing.....	1
Nursing 12, first quarter in the School of Nursing.....	3
Pharmacology 8a, first quarter in the School of Nursing	1

B. Elective courses. In choosing electives thought should be given to possible fields of specialization and to the student's individual interests and abilities. Electives in social science, natural science, psychology, and child welfare are especially valuable for the prenursing student. The student should also explore the offerings of the other departments of the College of Science, Literature, and the Arts, such as philosophy, humanities, music, art, and others. A special three-credit course in physics for nurses is offered by the Physics Department. Prenursing students are urged to give consideration to the inclusion of this course among their electives.

* Preferred courses.

† See *School of Nursing Bulletin*, 1947-49, page 25.

‡ The student in the basic professional program of the School of Nursing may elect a major in the School of Public Health. See *Bulletin of the School of Nursing* and *Bulletin of the School of Public Health*.

Advisers from the School of Nursing faculty are assigned to prenursing students in the College of Science, Literature, and the Arts. Before registering each quarter, students should have their programs reviewed by their adviser in the School of Nursing.

Students from other universities or colleges should, as a rule, transfer to the University of Minnesota at the end of their first academic year, if they wish to complete the Bachelor of Science Curriculum in the minimum time. Students may, however, transfer at any point in the prenursing program. Those who wish to complete all prenursing requirements before transferring to the University of Minnesota may do so provided they complete sufficient required courses as listed above. These students should confer with the Office of Admissions and Records early to ascertain their exact standing. They are urged to consult with the School of Nursing at the end of their freshman year.

A suggested two-year program follows: Electives should be chosen to make on the average a program of 15 credits per quarter in addition to physical education (4 or 5 quarters of physical education to make a total of 5 credits).

FIRST YEAR

<i>Fall</i>	<i>Winter</i>	<i>Spring</i>
English 4f or Af or Communication 1f	English 5w or Bw or Communication 2w	English 6s or Cs or Communication 3s
Chemistry 1f or 4f or 6f	Chemistry 2w or 5w or 7w	Anatomy 4s
Zoology 14f or 1f	Zoology 15w or 2w	Zoology 3s
Public Health 3f	Physical Education	Sociology 1s
Physical Education	Electives	Physical Education
Electives		Electives

SECOND YEAR

<i>Fall</i>	<i>Winter</i>	<i>Spring (Part II)</i>
Psychology 1f	Psychology 2w	(School of Nursing—1st quarter)
Physiology 50f	Child Welfare 40w	Nursing 1s
Bacteriology 53f	Home Economics 31w	Nursing 12s
Physical Education	Sociology 49w	Physiology 60s
Electives	Electives	Pharmacology 8as
		Physics As
		Electives

Part II: School of Nursing (Ten Quarters)

Students in the Bachelor of Science Curriculum transfer from the College of Science, Literature, and the Arts to the School of Nursing at the end of the fifth quarter. The ten quarters in the School of Nursing constitute the major in nursing. By the end of the sixth quarter (first quarter in the School of Nursing) the student completes a total of 90 credits with at least one honor point per credit (C average), including all the required courses listed above (Part I). For clinical curriculum see *School of Nursing Bulletin*.

Part III: College of Education

(Students must spend three full quarters in this portion of the curriculum)

After completion of the major in nursing the student selects one of two majors as follows:

A. Nursing Education for which she registers in the College of Education.

B. Public Health Nursing for which she registers in the College of Education or in the School of Public Health.

NOTE—Students wishing a combined Nursing Education and Public Health Nursing Major should register in the College of Education and must complete the courses required for the Nursing Education Major and the courses required for the Public Health Nursing Major as listed in the *Bulletin of the School of Public Health*. This combined program requires at least four quarters.

A. NURSING EDUCATION

Major Advisers, Professor Katharine J. Densford; Associate Professor Ruth Harrington

Students in Nursing Education must meet the requirements for graduation of the College of Education. See pages 11-15. They are, however, exempt from Public Health 4 and Public Health 59 of the Health Education requirement.

Students must complete the Nursing Education Major as listed below, and in addition must complete electives to make a total of 45 credits.

Nursing Education Major Course Requirements

Course No.	Title	Credits
Ed. 55B	Introduction to Education	5
Ed.T. 51A,B†	The Teaching of Nursing	8
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	.....	30

The following sequence of courses is suggested:

First Quarter		Second Quarter		Third Quarter	
Course No.	Credits	Course No.	Credits	Course No.	Credits
Ed. 55B	5	Ed.T. 51A	4	Ed.T. 51B	4
Nurs. Ed. 69	3	Nurs.Ed. 60	5	Nurs. Ed. 171	3
H.Ed. 180	3	Electives§	6	Electives§	8
Electives§	4		15		15
	15				

Nineteen or more elective credits are possible in the program leading to the B.S. in nursing education. The electives may be chosen from any course offerings in the University for which the student meets the prerequisites, and must have the approval of the major adviser. The student will usually profit most from concentrating the choice of courses on one or two areas of interest. It is appropriate to elect courses in the fields of education, nursing education, public health, child welfare,

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

1. A passing grade in Ed. 55B.
2. Taking the psychological examinations.
3. Attainment of a scholastic average of 1.5 in 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. Passing the required speech test.
6. Completion of required clinical experiences.

§ May be taken in any quarter.

natural sciences, social sciences, humanities, arts, and other fields of special interest to the student. By careful selection of electives the student may complete a minor in one field. A description of the available minors in nursing education follows.

Ward Administration Minor*—Designed to provide the student with theoretical background and supervised ward experience in the activities and responsibilities of the hospital head nurse.

Minor adviser, Assistant Professor Margaret L. Randall

Course Requirements

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. 167	Studies and Experience in Ward Administration	8
Total		13

The following sequence of courses is suggested:

<i>First Quarter</i>		<i>Second Quarter</i>		<i>Third Quarter</i>	
Course No.	Credits	Course No.	Credits	Course No.	Credits
Ed. 55B	5	Ed.T. 51A	4	Ed.T. 51B	4
Nurs. Ed. 69	3	Nurs.Ed. 60	5	Nurs.Ed. 171	3
H.Ed. 180	3	Nurs.Ed. 73	1	Nurs.Ed. 167	8
Nurs.Ed. 65	4	Electives	5		
	<hr/>		<hr/>		<hr/>
	15		15		15

Science Teaching Minor—Designed to prepare the student to teach basic sciences and to provide a broad background in biological sciences for the teaching of clinical subjects in schools of nursing.

Minor adviser, Assistant Professor Myrtle H. Coe

Course Requirements

Students registering for this program should plan to spend more than three quarters to complete the program.

Course No.	Title	Credits
Nurs.Ed. 74	Sciences in a School of Nursing Curriculum	5
Bact. 102	Medical Bacteriology	4
Zool. 149, 150	Histology and Organology }	5-6
or Zool. 21	Histology	
or Anat. 61	Histology	5-6
Zool. 22	Comparative Anatomy }	
or Anat. 59	Systemic Anatomy	
Total		19-21

Child Care Minor—Designed to prepare the student for the position of nurse in a nursery school or kindergarten. Usually requires more than three quarters to complete the program.

Minor adviser, Professor John E. Anderson; Myrtle I. Brown

* Enrolment is limited. Permission of Ward Administration Committee required.

Course Requirements

Course No.	Title	Credits
C.W. 80	Child Psychology	3
C.W. 170	The Teacher and the Parent	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	Nursery School-Kindergarten Laboratory in Arts, Literature, and Social Studies	5
or		
Ed.T. 58	Nursery School-Kindergarten Laboratory in Permanent Play Materials, Music, and Science	5
Ed.T. 77A	Directed Teaching in the Nursery School	4
Mu.Ed. 50A	Teaching Music in the Primary Grades	2
Total		30

B. PUBLIC HEALTH NURSING

Major adviser, Associate Professor Margaret S. Taylor

Students who wish a major in Public Health Nursing should register for the last three quarters in the School of Public Health and should consult the bulletin of that school.

Students wishing a combined program in Nursing Education and Public Health Nursing should register in the College of Education and must complete the courses required for the Nursing Education Major and the courses required for the Major in Public Health Nursing as listed below. The combined program requires at least four quarters. Careful note should be taken that the School of Public Health requires one political science course and nine credits in social science courses other than sociology.

Course Requirements

Course No.	Title	Credits
Soc. 49	Social Problems	3
Soc. 50	Areas of Social Work	4
Soc. 91	Case Method Applied to the Study of Human Problems	3
C.W. 40	Child Training	3
or		
C.W. 80	Child Psychology	3
Bact. 53	General Bacteriology	5
or		
Bact. 101	Medical Bacteriology	5
P.H. 100	Elements of Preventive Medicine and Public Health	5
P.H. 62-63	Principles of Public Health Nursing I-II	6
P.H. 65, 66, 67	Field Practice in Public Health Nursing	15-23
P.H. 133	Mental Hygiene Aspects of Public Health Nursing	3
Ed. 81	Introduction to Education for Public Health Nurses	3

Elective Requirements

Social Sciences other than sociology (must include one course in political science).....	9
Natural Sciences including vital statistics and psychology laboratory	14
Public Health	5
General electives from any department	5-8

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

Open to those who meet entrance requirements for specialized curricula of the College of Education. Applicants are required to submit their high school and nursing school records for evaluation to the Office of Admissions and Records. 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 satisfactory course of study in a hospital school of nursing; 53 credits for course in a hospital school having its pre-nursing sciences taught in the University of Minnesota; 55 credits for graduates from three-year program of other university schools; and 60 credits for graduates from the University of Minnesota School of Nursing. If, however, an honor point average of 1.0 was not maintained in the basic biological sciences, not more than 45 credits will be granted.

Students register in the College of Education and must 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 11-15.) They are, however, exempt from Public Health 4 and 59 of the Health Education requirement.

To secure a degree in the College of Education students must earn 186 credits and 186 honor points, and achieve 1½ honor points for each credit in a major field.

The amount and type of courses recommended for each candidate are decided upon after consideration of a candidate's general education and experience. The following curricula meet the needs of most students. Substitutions may be made by petition upon the recommendation of the major adviser.

Graduate nurses preparing for personnel and guidance positions should plan to take graduate work in that field, but should select certain electives in the Bachelor of Science program which serve as preparation for graduate study. Attention is called to offerings in other colleges of the University in the field of personnel work.

A. NURSING EDUCATION

Major advisers, Professor Katharine J. Densford; Associate Professor Ruth Harrington

Advanced standing granted to graduate nurses for basic nursing course 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 Education Course 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

Course No.	Title	Credits
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 biological science is required, to be selected from the following fields: anatomy, bacteriology, physiology, physiological chemistry, and zoology (other than Zoology 1-2-3 or 14-15)	4-6
	Physical Education	5

Nursing Education Major Course Requirements

Of the following courses Ed. 55B should be taken in the junior year. In the case of students entering the program with senior standing Ed. 55B 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	8
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		30

The following sequence of courses for the senior year is suggested:

First Quarter		Second Quarter		Third Quarter	
Course No.	Credits	Course No.	Credits	Course No.	Credits
Ed.T. 51A	4	Ed.T. 51B	4	H.Ed. 180	3
Nurs.Ed. 69	3	Nurs.Ed. 60	5	Electives	12
Electives	8	Nurs.Ed. 171	3		—
	—	Electives	3		15
	15		—		—
			15		
		or			
Ed. 55B	5	Ed.T. 51A	4	Ed.T. 51B	4
Nurs.Ed. 69	3	Nurs.Ed. 60	5	Nurs.Ed. 171	3
H.Ed. 180	3	Electives	6	Electives	8
Electives	4		—		—
	—		15		15
	15				

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 prerequisites. 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, child welfare. She may wish to

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

1. A passing grade in Ed. 55B.
2. Taking the psychological examinations.
3. Attainment of a scholastic average of 1.5 in 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. Passing the required speech test.
6. Completion of required clinical experiences.

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:

Ward Administration Minor*—Designed to provide the student with theoretical background and supervised ward experience in the activities and responsibilities of the hospital head nurse.

Minor adviser, Assistant Professor Margaret L. Randall

Course Requirements

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. 167	Studies and Experience in Ward Administration	8
Total		13

The following sequence of courses in the senior year is suggested:

<i>First Quarter</i>		<i>Second Quarter</i>		<i>Third Quarter</i>	
Course No.	Credits	Course No.	Credits	Course No.	Credits
Ed.T. 51A	4	Ed.T. 51B	4	H.Ed. 180	3
Nurs.Ed. 69	3	Nurs.Ed. 60	5	Nurs.Ed. 167	8
Nurs.Ed. 65	4	Nurs.Ed. 73	1	Electives	4
Electives	4	Nurs.Ed. 171	3	—	—
	15	Electives	2		15
			15		

Science Teaching Minor—Designed to prepare the student to teach basic sciences and to provide a broad background in biological sciences for the teaching of clinical subjects in schools of nursing.

Minor adviser, Assistant Myrtle H. Coe

Course Requirements

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.

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

* Enrolment is limited. Permission of Ward Administration Committee required.

The following sequence of courses in the senior year is suggested:

<i>First Quarter</i>		<i>Second Quarter</i>		<i>Third Quarter</i>	
Course No.	Credits	Course No.	Credits	Course No.	Credits
Ed.T. 51A	4	Ed.T. 51B	4	H.Ed. 180	3
Nurs.Ed. 69	3	Nurs.Ed. 60	5	Nurs.Ed. 74	5
Advanced Science		Nurs.Ed. 171	3	Advanced Science	
Courses	8	Advanced Science		Courses	7
or		Courses	3	or	
Electives	—	or		Electives	—
	15	Electives	—		15
			15		

Child Care Minor—Designed to prepare the student for the position of nurse in a nursery school or kindergarten.

Minor adviser, Professor John E. Anderson; Myrtle I. Brown

Course Requirements

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	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	5
Ed.T. 77	Directed Teaching in the Nursery School	4
Mu.Ed. 50A	Teaching Music in the Primary Grades	2
Total		30

B. PUBLIC HEALTH NURSING

Major adviser, Associate Professor Margaret S. Taylor

The graduate nurse who wishes a combined program in Nursing Education and Public Health Nursing should register in the College of Education and must complete the courses required for the Nursing Education Major and the courses required for the Public Health Nursing Major as listed on page 72.

C. ADVANCED CLINICAL STUDY

Clinical adviser, Assistant Professor Myrtle H. Coe

Graduate nurses registered for a bachelor of science degree in the College of Education may include in their curriculum a sequence of three quarters in advanced study in one of the following clinical fields:

Medical nursing	Pediatric and communicable	Surgical nursing
Obstetric nursing	disease nursing	Tuberculosis nursing
Operating room nursing	Psychiatric nursing	
Pediatric nursing	Rural hospital nursing	

Decision to include clinical study should be made early in a student's program so that the required Junior College courses may be completed in the sophomore year. In the clinical programs the junior year is devoted to advanced clinical nursing with directed experience and related courses. The program is planned with a clinical adviser to meet individual needs and major interests.

Clinical courses include patient care; lectures, conferences, seminars, tours; observation or participation in the work of the outpatient department, nursery schools, settlement houses, community health agencies, special hospitals, and other community organizations. The schedule of clinical experience is planned on an individual basis to provide the best possible clinical opportunities compatible with the schedule of academic classes.

Inclusion of a clinical year enlarges the experience content of the student's total program and emphasizes the application of scientific principles to problems of care of illness and maintenance of individual and family health. Such a program is particularly valuable to the graduate nurse who has not done advanced study in the clinical field in which she plans to practice.

A detailed outline of the suggested clinical curricula is listed in the *Bulletin of the School of Nursing* for the years 1947-49, pages 30-37.

Graduate Study

Graduate study in nursing education and in fields related to nursing may be carried and a Master's degree earned by students who meet the requirements of the Graduate School. Programs should be made out in consultation with a major adviser in the School of Nursing and in the chosen department. 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, biological sciences. Scholarships are available through the School of Nursing to qualified professional nurses who are interested in graduate study in preparation for teaching and educational consultant positions in psychiatric nursing.

PHYSICAL EDUCATION FOR MEN

Major advisers, Professors Louis F. Keller, Carl L. Nordly; Associate Professor Ralph A. Piper

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

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*.

Graduate courses are offered leading to the three following degrees:

1. M.Ed. with a major in physical education granted by the College of Education.
2. M.A. 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 page 18.)
3. Ph.D. 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*.

Students desirous of obtaining the M.A. or Ph.D. degree should make application for admission to the Dean of the Graduate School, University of Minnesota, Minneapolis 14, Minnesota. Students interested in the M.Ed. degree should make application to the Office of Admissions and Records for admission to the College of Education. An official transcript in duplicate should accompany the application.

A. Students who plan to fulfill requirements for the bachelor of science degree and the special teacher's certificate must complete the following requirements:

1. Courses listed under Required Courses in Physical Education for the B.S. degree.
2. A total of twenty-six credits in education including: directed teaching in physical education, methods in the minor, Ed. 55A-B, and H.Ed. 180.
3. At least one teaching minor which may be fulfilled partially in the required curriculum.
4. A total of 186 credits, at least ninety of which must be in academic (other than education) courses. These courses must be carried with a C average.
5. An average of C+ (1.5 honor points per credit) in designated physical education courses, and a C average in the minor, and a C average in all other courses taken during the junior and senior years.

B. 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:

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) 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. Each candidate is required to demonstrate proficiency by teaching two demonstration classes unless excused by a major adviser of the M.Ed. program.
6. A candidate may be required to pass an oral examination unless exempted on the basis of the results of his written examinations.
7. 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.
8. 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.

C. 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. Ed. 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 B-4, 5, 6, 7 or 8 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.

D. 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 C 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
	<hr/>
Minimum total	45

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 A-B-C)	9
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	1
	General Electives	12
		<hr/>
Total		45

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	4
Phys.Ed. 8	Tennis and Golf	1
	General Electives	18
		<hr/>
Total		47

JUNIOR YEAR

Phys.Hyg. 91, 92	Principles of Human Function	8
P.H. 51	Community Hygiene	3
Phys.Ed. 9A-B	Rhythms	2
Phys.Ed. 51	Mechanics of Movement	3
Phys.Ed. 55	Methods and Materials in Physical Education	4
Phys.Ed. 56-57	Introduction to Community Recreation	6
Ed. 55A-B	Introduction to Secondary School Teaching	10
	General Electives	11
		<hr/>
Total		47

SENIOR YEAR

Course No.	Title	Credits
Phys.Ed. 60	Prevention and Care of Injuries	3
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	Coaching of Football	2
Phys.Ed. 68*	Coaching of Basketball	2
Phys.Ed. 69	Coaching of Track	2
Phys.Ed. 72*	Coaching of Baseball	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. 180	The School and the Social Order	3
	General Electives	9
Total	.....	47
Total Credits	.....	186

Summary of Requirements

Physical Education Courses	61
Required Courses in Other Departments	75
Electives	50

Elective Courses in Physical Education for Men

Phys.Ed. 59	Instructor's Course in First Aid	2
Phys.Ed. 61	History of Physical Education	3
Phys.Ed. 78	Scout Leadership	2
Phys.Ed. 79	Camp Leadership	2

For graduate courses, see pages 136-138.

Requirements for a 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. 57	Operation and Conduct of Play Centers	3
Phys.Ed. 60	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	Coaching of Athletic Sports (Football)	2
Phys.Ed. 68	Coaching of Athletic Sports (Basketball)	2
Phys.Ed. 69	Coaching of Athletic Sports (Track)	2
Phys.Ed. 72	Coaching of Athletic Sports (Baseball)	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

* Elective for men with varsity squad experience in these sports.

PHYSICAL EDUCATION FOR WOMEN

Major advisers, Professor Gertrude M. Baker and Associate Professor
Helen M. Starr

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. Five-year curriculum leading to the master of education degree with a major in physical education.
3. Curriculum for a teaching minor in physical education.
4. Curriculum for state of Minnesota 9-credit endorsement for teaching physical education.

*General Requirements 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 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 Leading to a Bachelor of Science Degree with a Major in Physical Education

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	Communication	9
Eng. A-B-C or	Freshman English (or exemption)	15
Comp. 4-5-6 or	Freshman Composition	9
G.C. 31A-B-C†	Writing Laboratory	9
Zool. 1-2-3	General Zoology	10
Soc. 1	Introduction to Sociology	5
Phys. Ed. 21A-B-C	Elementary Physical Education	6
Phys. Ed. 26	First Aid	1
P.H. 3	Personal Health	2
	Electives (Consult adviser)	

* See handbook "Guide for Professional Students in Physical Education" for more specific information.

† Writing Laboratory must be carried with a percentile rank of 50 or better in order to receive credit.

SOPHOMORE YEAR

Course No.	Title	Credits
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. 41A-B-C	Intermediate Physical Education	9
Anat. 57	General Anatomy	4
Phys.Ed. 65A, 73A	Teaching Techniques in Physical Education	2

JUNIOR YEAR

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. 60	Principles of Play	3
Phys.Ed. 57A-B, 61A-B-C, 64, 65B, 73B-C	Teaching Techniques in Physical Education	9
Phys.Ed. 66	Advanced Physical Education	1
P.H. 59	Health of the School Child	3
Phys.Ed. 61§	History of Physical Education	3
	Electives (Consult adviser)	

SENIOR YEAR

Ed.Psy. 158	Psychology of Adolescence	3
Phys.Ed. 82	Principles of Physical Education	3
Phys.Ed. 84	Problems in Physical Education	2
Phys.Ed. 85	Remedial Activities in Physical Education	3
Phys.Ed. 86	Aspects of School Health Appraisal	3
Phys.Ed. 95	Administration of Physical Education	3
Phys.Ed. 90A-B-C*	The Teaching of Physical Education	8
Phys.Ed. 116E	Problems in Physical Fitness	3
Phys.Ed. 117E	Survey of Problems in Method and Curriculum of School Health Instruction	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	Recreation Leadership
Sociology	Political Science
School Health Education	

Professional students in Physical Education may find desirable electives in the course offerings of the departments listed below:

Sociology and Social Work	Music
Child Welfare	Public Health
Education: Curriculum and Instruction	Home Economics
Educational Administration	

***Five-Year Curriculum Leading to a Master of Education Degree
with a Major in Physical Education for Women¶***

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 their next three years may be properly integrated and directed.

* Senior life saving certificate or its equivalent is required for student teaching in swimming. Life saving skills are included in Phys.Ed. 41.

§ Offered in Department of Physical Education for Men.

¶ See page 16 of this bulletin for further information regarding M.Ed. degree.

Students with a bachelor of science degree with a major in physical education or its equivalent from other accredited institutions upon fulfilling the requirements for the fifth year may receive the master of education degree with a major in physical education. (See prerequisites.)

At least one teaching minor should be completed at the undergraduate level in order to have partially fulfilled the credit requirements for work in the minor at the graduate level. The department recommends that all fifth year students have two graduate minors if possible. Consult adviser about choice of minors.

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

FIFTH YEAR

	Credits
General academic field	6-12
Education	6-12
Suggested courses: Ed.Psy. 158; Ed.C.I. 119	
Physical Education	24

Course No.	Title	Credits
Ed.C.I. 114E	The School Health Education Program	3
Phys.Ed. 101*	Principles of Physical Education	3
Phys.Ed. 103*	Physical Examination and Adaptation of Activities	3
Phys.Ed. 111	Advanced Course in Methods of Teaching Physical Education....	3
Phys.Ed. 112E	Supervision of Physical Education	3
Phys.Ed. 113E	Physical Education in the Elementary Schools	3
Phys.Ed. 116E	Problems in Physical Fitness	1-3
Phys.Ed. 117E	Survey of Problems in Methods and Instruction of Health	3
Phys.Ed. 118E	Problems in Teacher Education in Health, Physical Education, and Recreation	3
Phys.Ed. 135	Tests and Measurements in Physical Education	3
Phys.Ed. 233	Special Administrative Problems in Physical Education	3
Phys.Ed. 234	Curriculum in Physical Education	3
Phys.Ed. 236	Recent Literature and Research in Health Education, Physical Education, and Recreation	3
Phys.Ed. 238*	Administration of Physical Education in Colleges and Univer- sities	2
Phys.Ed. 241*	Administration and Supervision of Public Recreation	3
Phys.Ed. 242	Community Organization for Recreation	3
Phys.Ed. 247	Problems in Health Education, Physical Education, and Recrea- tion	2-6

Prerequisite for Master of Education Degree for Students with a Major in Physical Education from Other Institutions

- I. Students who have the equivalent of a major in physical education from accredited institution may be accepted as candidates for the master of education degree.

The requirements of such a candidacy are the following or their equivalent:

1. The theory and technique courses for the professional degree in physical education or their equivalent.
2. Average skill in basic professionalized skill courses as shown by performance reached in Individualized Profile Chart.
3. Ed. 55A-B, Introduction to Secondary School Teaching, 10 credits, plus 10 additional credits in education exclusive of practice teaching.

* Offered in the Department of Physical Education for Men.

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

1. Average skill in at least two areas of physical activities or better than average skill in at least one area (opinion of experts in the field).
2. Total of 45 credits in courses numbered above 100 distributed as follows:
 - a. 24 credits in physical education courses numbered above 100; of these the following are required:

Ed.C.I. 114E	The School Health Education Program
Phys.Ed. 111E	Advanced Course in Methods of Teaching in Physical Education
	or
	One quarter of student teaching
Phys.Ed. 112E	Supervision of Physical Education
Phys.Ed. 113E	Physical Education in Elementary Schools
Phys.Ed. 134E	The Curriculum in Physical Education
Phys.Ed. 236	Recent Literature and Research in Physical Education
 - b. 6 to 12 credits in education courses numbered above 100.
 - c. A minimum of 9 credits in courses numbered above 100 in the minor field.
 - d. 6 credits elective in an academic field. The minor field is acceptable if in an academic field.
3. The general requirements and standards of the College of Education for the completion of the work for the master of education degree. See page 16 of this bulletin.

Requirements for Minor in Physical Education for Women

	Credits
I. Elementary and Intermediate Physical Education Skill Courses	7
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. Phys.Ed. 62 Techniques of Teaching Physical Education	3
III. Health Course	3
Ed.T. 83† Methods and Materials of School Health Education	
(required)	3 cred.
IV. Physical Education Theory Courses	8
Phys.Ed. 95† Administration of Physical Education	3 cred.
Phys.Ed. 84 Problems in Physical Education	2 cred.
Phys.Ed. 82† Principles of Physical Education	3 cred.
V. Student Teaching	2
VI. Electives selected from the list below.....	3
Phys.Ed. 25 or 26 First Aid	1 cred.
Phys.Ed. 41s Life Saving and Water Front Safety	1 cred.
Phys.Ed. 54 Camp Leadership	3 cred.
Phys.Ed. 60 Principles of Play	3 cred.
Phys.Ed. 80 Principles of Rhythm	2 cred.
Phys.Ed. 61* History of Physical Education	3 cred.
Total	26

Required Courses for Nine-Credit State Endorsement for Teaching Part-Time Physical Education

The Nine-Credit Endorsement is based upon work in two fields—activity and theory.

* Offered in the Department of Physical Education for Men.

† May be taken by Correspondence Study.

I. Activity Courses 4-6 quarter hours

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
- B. Individual and Dual Sports
- C. Self-Testing Activities
- D. Body Building Activities
- E. Rhythms

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

II. Theory Courses 3-5 quarter hours

Phys.Ed. 84	Problems in Physical Education	2 cred.
Phys.Ed. 95*	Administration of Physical Education	2-3 cred.

PUBLIC HEALTH

Major adviser, Dr. Gaylord Anderson

Public Health as a minor subject:

Course No.	Title	Credits
P.H. 50	Public and Personal Health	3
or		
P.H. 51	Community Hygiene	3
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
P.H. 106	Public Health Administration	3
Bact. 53	General Bacteriology	5
Physiol. 2	Elements of Physiology	4
or		
Physiol. 4	Human Physiology	4
or		
P.H. 91, 92	Principles of Human Function	8
Total credits		23 or 27

RECREATION LEADERSHIP

Major adviser, Assistant Professor Gerald B. Fitzgerald

Two types of training represented by two different programs are offered in Recreation Leadership. These are listed as Plan I and Plan II. Both programs involve four years of work and lead to the B.S. degree.

Plan I. Recreation Leadership and Administration—This plan is the professional curriculum offering preparation for administrative and supervisory positions. With careful planning the student may qualify for a teacher's certificate and for positions in connection with the public schools and other educational 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.

Plan II. Recreation Activity Leaders Training Course—This plan is directed specifically toward qualifying for recreation activities in recreation agencies. Enrollment 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 course.

* May be taken by Correspondence Study.

Plan I. Recreation Leadership and Administration

Major adviser, Assistant Professor Gerald B. Fitzgerald

Professional training for recreation leaders, administrators and consultants is offered in the Recreation Division of the Department of Physical Education and Athletics. The program is open to both men and women and is designed to prepare for positions as leaders, administrators and consultants in a wide range of positions in public, private, industrial and commercial recreation agencies and departments.

The four-year curriculum leads to a bachelor of science degree with a major in recreation and a fifth year of work provides a master of education degree in recreation.

A broad training is offered in order that students may qualify for recreation positions in a wide variety of federal, state, city, county, community, rural, industrial, private, commercial, hospital and youth serving agencies.

The curriculum provides extensive background in general education; appreciation and technique in the major recreation skill areas; field work; recreation philosophy; community organization for recreation; principles and practices in group work; recreation planning; and administration of recreation.

Emphasis in the fifth year of work for the master of education degree is in the organization, planning and administration of recreation.

Some of the specific positions which graduates of the Recreation Division qualify for are: superintendent or director of a department of recreation; assistant director; supervisor or consultant in recreation programs for girls and women and for boys and men; director of athletics; director of a community center; director of a playground; play leader; supervisor or consultant in community music, arts and crafts, drama, sports and games, social recreation and nature recreation; camp director, director or consultant in leisure-time education; director of industrial recreation; director of adult education; director of hospital or institutional recreation; recreation consultant; recreation program directors for resorts and hotels; director of county or rural recreation; director of recreation in housing projects; manager of specialized recreation areas and facilities; and director of recreation and parks.

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.

The pattern of the lower division is designed to provide an "education for leisure." This program provides a nucleus of educational experience that will enable one to live more satisfactorily in a world which increasingly demands social understanding and rich inner resources of creative expression.

Courses designated Recreation (Group F) are designed especially for those students who are considering the field of recreation as a profession or those who wish to add to their knowledge and experience in leisure time activities. Such students are asked to report to the Students Counseling Bureau for an aptitude rating. The rating is sent to the major adviser in recreation after which a personal interview is arranged.

Course Requirements

Group A: Natural Science—*Fifteen credits required*

Course No.	Title	Credits
Nat.Sci. 1-2-3	Orientation in the Natural Sciences	15

Group B: Psychology and Health—*Eight credits required*

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

Group C: Social Sciences—*Twenty-one to twenty-four credits required*

Soc.Sci. 1-2-3	Introduction to Social Science	12
and		
Hist. 20-21-22	American History	9
	or a minimum of 5 or 6 credits in each of the following fields: Sociology, Political Science, Economics, and American History.	

Group D: English Composition, Literature and Speech—*Fifteen credits required*

Com. 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		9
Sp. 1-2-3 or 5-6	Fundamentals of Speech		6-10

Group E: Skills and Their Appreciation—*Twenty-two credits required*

Required Courses	<i>Music—4 credits</i>	
Mu. 1 and	Ear Training	2
Mu. 31 or 32 or 33	Music Appreciation	2
or		
G.C. 24A-B-C	Music Today	2

Arts and Crafts—9 credits

Art 4, 5 or	General Design	6
Art 43	General Crafts	3
	Courses in Design or Crafts	6

Dramatics—3 credits

Sp. 31	Introduction to the Theatre	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—*Nine credits required*

Required Courses		
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 G: General Electives

To Total—96 credits

* Requirement may not be met by exemption examination.

MAJOR IN RECREATION LEADERSHIP

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 exempt by the major adviser in recreation and the Students' Work Committee.

Requirements for all students desiring to enter or to continue in the recreation leadership major which begins with the junior year are as follows:

1. Ninety college credits, exclusive of required physical education, the courses meeting the general lower division pattern.
2. Minimum of C average over all college work taken.
3. Passing mark in special entrance examination in recreation.
4. Satisfactory health examination.
5. Evidence of leadership qualities as shown by extra-classroom experience during high school and college and *personal interview*.
6. 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. During the fall quarter they will be asked to submit evidence of leadership qualities and will be required to take the entrance examination in recreation. Only those students whose own examination of their lower division work gives them some assurance that they have met the requirements under (1) and (2) of entrance requirements are encouraged to register.

Those University of Minnesota students who wish to enter the major curriculum in their junior year should make application to the major adviser in recreation before the completion of the work of the sophomore year to afford time for their examinations, interviews, and a study of the quality of their university work. 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 minors in an academic subject or in one of the 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, a teaching major is recommended or two teaching minors. No minor is required in this curriculum, although students who plan to teach must meet the above listed requirements.

The curriculum is designed to meet graduation requirements of the College of Education and includes the public health requirement.

JUNIOR AND SENIOR YEARS

*Course Requirements*Education—*Eighteen credits required*

Course No.	Title	Credits
Required Courses		
Ed. 55A-B	Introduction to Secondary School Teaching	10
Ed.C.I. 104	Adult Education	2
Ed.C.I. 105	Visual Aids in Teaching	3
H.Ed. 180	The School and the Social Order	3

Recreation—*Thirty credits required*

Recommended Courses

Soc. 50	Areas of Social Work	4
Phys.Ed. 52	Leadership of Social Activities	2
Phys.Ed. 54 or 79	Camp Leadership	2
Phys.Ed. 56	The Theory of Play	3
Phys.Ed. 57	The Organization and Conduct of Recreation Centers	3
Phys.Ed. 58	Leadership in Community Recreation	3
Phys.Ed. 110	Recreation Surveys	2
Phys.Ed. 111	Recreation Areas and Facilities	3
Phys.Ed. 112	Programming in Recreation	3
Phys.Ed. 78	Scout Leadership	2
Phys.Ed. 116	Community Recreation Resources and Organization	3
Phys.Ed. 121	Principles of Recreation Method	3

Skill Techniques—*Twenty-one credits required*

Recommended Courses

	<i>Music—4 credits</i>	
Mu.Ed. 50A	Teaching Music in the Primary Grades	2
Mu.Ed. 59	Choral Literature and Conducting	2
	<i>Arts—3 credits</i>	
Art 43 or	General Crafts	3
Art 83 or	Sculpture	3
Art 93	Ceramics	3
	<i>Dramatics—6 credits</i>	
Sp. 32-33	Beginning Acting	6
	<i>Nature—4 credits</i>	
Phys.Ed. 64A-B	Leadership in Nature Recreation	4
	<i>Games, Rhythms, and Sports—men—4 credits</i>	
Phys.Ed. 5A-B-C	Physical Education Activities	3
Phys.Ed. 7A-B-C	Recreational Games and Sports	3
	<i>Games, Rhythms, and Sports—women—4 credits</i>	
Phys.Ed. 57A-B	Technique of Teaching Aquatics	4
Phys.Ed. 61A-B-C	Technique of Teaching Team Sports	3
Phys.Ed. 64	Technique of Teaching Gymnastics	1
Phys.Ed. 65A-B	Technique of Teaching Individual and Dual Sports	2
Phys.Ed. 73A-B-C	Technique of Teaching Rhythms	3

Practice and Field Work—*Twelve credits required*

Required 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)	9

Public Health—*Six credits required*

Required Courses

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.

Total—90

* Requirement may not be met by exemption examination.

MINOR IN RECREATION LEADERSHIP

Required Courses			
Phys.Ed. 25	First Aid		1
	Recreation Leadership (Courses to be chosen in consultation with major adviser)		12
	Skill Techniques (To be chosen in consultation with major adviser)		12
Ed.T. 85A-85B-85C	Practice and Field Work in Recreation		3
Controlled Electives. One	course to be selected from the following:		
Psy. 140	Social Psychology		3
Ed.C.I. 104	Adult Education		2
Ed.Psy. 158	Psychology of Adolescence		3
Ed.C.I. 169	Extra-curricular Activities		2
	<hr/>		
Total	.....		30-31

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 CURRICULUM LEADING TO THE MASTER OF EDUCATION DEGREE,
MAJOR IN RECREATION

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 which are 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. In courses comprising the fifth year curriculum, a B average is required—(2 honor points per credit).
4. Students with Bachelor's degrees with a major in physical education, recreation, social work, or other allied fields, from other accredited institutions, may receive the master of education degree with a major in recreation when the following requirements other than herein listed have been fulfilled:
 - a. Ed. 55 A-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.
5. Satisfactory completion of final written and oral examinations.
6. A satisfactory report on health examination within one year prior to obtaining M.Ed. degree.
7. Distribution of credits for the fifth year as follows: Education 6-9, Recreation 24-28, Electives 8-15.

Education—*Six to nine credits required*

To be selected from courses in education numbered above 100 in consultation with major adviser.

Recreation—*Twenty-four to twenty-eight credits required*

Course No.	Title	Credits
Required Courses		
Soc. 106	City Planning	3
Soc. 282	Principles of Group Work	3
For. 143	Forest Recreation	3
Phys.Ed. 131	Industrial Recreation	3
Phys.Ed. 141	Hospital Recreation	3
Phys.Ed. 236	Recent Literature and Research in Health Education, Physical Education and Recreation	3
Phys.Ed. 241	Administration and Supervision of Community Recreation.....	3
Phys.Ed. 242	Community Leadership and Community Organization for Recreation	3
Phys.Ed. 247	Problems in Health Education, Physical Education and Recreation	Ar.
Phys.Ed. 261	Seminar on Contemporary Problems in Recreation	2-6
Ed.C.I. 199E	Internship	8
Electives	To be selected from courses numbered above 100 on advice of major adviser. From 8 to 15 academic credits.	

Plan II. Recreation Activity Leaders Training Course

Major Adviser, Assistant Professor Gerald B. Fitzgerald

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, handcrafts, 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 acceptance or continuance in the curriculum, the student must maintain a C average in all work completed in the University of Minnesota.

Students will be under the direct and careful supervision of a counselor in the Student Personnel division of the College of Education. The acceptance procedure includes an interview with the counselor and an interview with a major adviser in the recreation division of the Department of Physical Education for Men. The course is open to both men and women.

Plan II may also be attractive to recreation activity leaders without degrees, presently employed in recreation agencies in the Twin Cities or elsewhere, as a means of providing them with additional professional training.

Students enrolled in Plan II who meet the specific requirements of Plan I, and who wish to transfer to Plan I, will be considered for transfer on the basis of recommendation by the College of Education counselor and the adviser in recreational leadership.

General College

FRESHMAN AND SOPHOMORE YEARS

Group A: Natural Science—*Eighteen credits required*

Course No.	Title	Credits
Required Courses		
G.C. 7A, B, C, D	Physical Sciences	Up to 15
or		
Nat.Sci. 1-2-3	Orientation in Natural Sciences	15
G.C. 10A-B	Human Biology	6
G.C. 10C	Human Biology	3
or		
P.H. 3	Personal Health	2

Group B: Composition, Literature, Speech—*Seventeen credits required*
(Nine must be in some form of writing)

Required Courses		
G.C. 31A, B, C, D	Writing Laboratory	9
or		
Com. 1, 2, 3	Communication	9
or		
Comp. 4, 5, 6	Freshman Composition	9
G.C. 32A, B, C, D	Oral Communication Speech Laboratory	6
or		
Sp. 1, 2	Fundamentals of Speech	6
or		
Sp. 5	Fundamentals of Speech	5
G.C. 30A, B, C, D, E	Literature Today	3

Group C: Social Sciences—*Twenty-four credits required* 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 Services	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—*Five credits required*

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

Group E: Recreation Theory—*Nine credits required*

Required Courses		
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—Nineteen credits required

Required Courses

G.C. 24A, B, C	Music Today	2 to 6
or		
G.C. 25A, B, C	Music Today	3 to 9
G.C. 22A, B, C	Art Today	3 to 9
G.C. 23A	Art Laboratory	3
G.C. 25X	Music Laboratory	2 to 3
Phys.Ed. 4A, B, C	Fundamentals of Sports (Men)	1 to 3
or		
Phys.Ed. 1, 2, 3	College Program in Physical Education (Women)	1 to 3
Phys.Ed. 25	First Aid	1
Phys.Ed. 6C	Aquatics (Men)	1
Phys.Ed. 11	Aquatics (Women)	1
Total		93

College of Education**JUNIOR AND SENIOR YEARS****Group A: Recreation Theory—Thirty-eight credits required**

Course No.	Title	Credits
Required Courses		
Phys.Ed. 56-57-58	Introduction to Community Recreation	9
Phys.Ed. 52	Leadership of Social Activities	2
Phys.Ed. 78	Scout Leadership	2
Phys.Ed. 54 or		
Phys.Ed. 79	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
	Methods in Recreation Activities	3
Total		38

Group B: Recreational Skills—Twenty-two credits required

Required Courses		
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
Total		22

Physical Education—Men—Ten credits required from the following

Phys.Ed. 5C	Activities (Stunts)	1
Phys.Ed. 7A	Active and Social Games	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—*Ten 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—*Five or six credits* required

Required Courses

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

Group D: General Electives—*Seventeen or eighteen credits*

To be selected from Senior College courses in consultation with major adviser

Total	93
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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 42. However, modifications may be made in individual cases in conference with the major adviser, and many of the courses under A 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**A. Specialization in Rural Life—Forty to forty-five credits*

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

A minimum of 14 credits chosen from the following

H.E. 1 or	Choice and Care of Clothing }	3 or 4
G.C. 15A	Clothing Selection, Purchase, and Care }	
H.E. 30 or	Introduction to Nutrition }	2 or 3
H.E. 31 or	Introduction to Nutrition }	
G.C. 14A	Food Selection and Purchase }	

H.E. 20 or	Introduction to Related Art	}	3 or 5
H.E. 24 or	Problems in Home Planning and Furnishing		
G.C. 16A or	Selecting and Maintaining a Home		
H.E. 50 or	Textiles	}	3
H.E. 2	Introduction to Textiles		
G.C. 17B	Individual and Household Buying	.....	3

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

B. General and Elementary Education

Ed. 71A-B-C	Introduction to Elementary School Teaching	.....	15
Art Ed. 84	The Teaching of Art in the Elementary Grades	.....	3
Mu.Ed. 50B	Teaching Music in the Intermediate Grades	.....	2
Ed.C.I. 60	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
Ed.C.I. 54A-B	Directed Teaching in the Elementary School	.....	8
H.Ed. 180	The School and the Social Order	.....	3

C. Additional courses to complete the total of 186 credits

Required Course

P.H. 59	Health of the School Child	3
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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—*Six 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—*Twenty-four 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 eight credits*

4. Graduate courses in agriculture, horticulture, forestry, home economics, or other subject matter fields—*eight credits*

Minimum total	45
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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

Major adviser, Associate Professor Helen M. Starr

This minor in school health education is open to elementary education majors and as an additional minor for secondary education majors (not to be substituted for any minor requirement now held in the secondary fields).

Requirements for Minor in School Health

Group A: Scientific Background		
G.C. 10A-B	Human Biology	6
G.C. 10C† or	Human Biology	} 7-8
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 Aspects of Public Health	3
Phys.Ed. 25	First Aid	1
Total		20-21
Group B: School Health Education Theory		
Ed.T. 83	Methods and Materials of School Health Education	3
or		
P.E. 117E	Survey of Problems in Method and Curriculum of School Health Instruction	3
Ed.C.I. 114	The School Health Education Program	3
Ed.C.I. 129	Principles and Problems of Teaching Social Hygiene.....	2
Total		8
Group C: Directed Teaching		
Phys.Ed. 90	Student Teaching	2
Total		2

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 (18 credits) is required for teaching history in high school. Those who take a social studies major are strongly urged to gain experience in some extra-curricular activity. A minor in science, a foreign language, or mathematics constitutes a valuable addition to one's preparation in the social studies.

† See Public Health requirement, page 12.

Major—The course requirements for a major in the social studies are prescribed under A and B below:

- A. 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.
 1. Economics, 30 credits including Courses 6-7 and 20 additional credits of which 12 must be in courses numbered above 100.
 2. Geography, 28 credits.
 3. History, 36 credits, 18 of which must be from the Senior College.
 4. Political Science, 30 credits.
 5. Sociology, 30 credits.
- B. In addition to the requirements set forth under A the student must complete courses in other subjects as follows:
 1. With economics, geography, political science, or sociology as the core subject. In addition to the requirements for the core subject the student must secure 18 credits in history and 18 credits in other subjects listed under A. Note the following limitations: Not fewer than 5 credits may be chosen from any one field, and the field selected under A as core subject may not be used to meet the B requirement.
 2. 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 A. 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 the 28-36 credits in the core subject.

For professional and public health requirements, see pages 12 and 22.

Minor—Those who major in some subject or field other than the ones listed under A, may secure a minor in the social studies. The course requirements for a minor in the social studies are 36 credits, 18 in history and 18 divided between at least two other subjects selected from the five listed under A above. No fewer than 5 credits in any one subject will be counted toward the requirement of 18 credits in other subjects.

Five-Year Program in the Social Studies 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 16. For specific requirements for this curriculum confer or correspond with the major adviser. See also the statement concerning work in the Graduate School, pages 16-18.

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 is granted and a B.S. degree. 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.

College of Science, Literature, and the Arts

FRESHMAN AND SOPHOMORE YEARS

Course No.	Title	Credits
Cont. 1-2-3	Communication (or Comp. 4-5-6 or Eng. A-B-C or exemption)	9
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
Human Anat. 3	Elementary Anatomy	4
	Physical Education	3 or 5
	Electives	36-39
Total		96

College of Education

JUNIOR AND SENIOR YEARS

Course No.	Title	Credits
Sp. 61	Personal Development through Speech	3
Sp. 67	Phonetics	3
Sp. 85	Introduction to Speech Correction	3
Sp. 152-153	Problems of Hearing	6
Sp. 155	Lipreading	3
Sp. 162-163	Speech Pathology	6
Psy. 144-145 or 113	Abnormal Psychology	6 or 3
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	15
Ed. 55A-B	Introduction to Secondary School Teaching	10
Ed.C.I. 145	Remedial Reading (optional)	3
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

The C+ average is based on the following courses: Sp. 61, 67, 85, 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 and 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 leading 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, 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.

TEACHERS OF HANDICAPPED CHILDREN

Major adviser, Professor Guy L. Bond

The four-year program, Curriculum I, outlined below is for students without teaching experience who wish to qualify for the elementary and special teaching certificate. Curriculum II is for graduates of teachers colleges or similar institutions, who already hold an elementary school teaching certificate and have had teaching experience.

Students who hold an elementary school certificate, and who have had two years of teaching experience in elementary schools, and who complete a minimum of 20 credits in approved courses of the junior and senior years, will qualify for a special teaching certificate required of teachers of subnormal children, in special classes for which state aid is received. All students who have not had the equivalent previously must take the courses in directed teaching and handwork to qualify them for this special certificate.

Unclassed students with proper prerequisites may pursue courses for which they are qualified in the junior and senior years, on the basis of previous training and experience.

The C+ average is based on Ed. 71A-B-C; Ed.Psy. 142, 184; Ed.T. 53A-B; Ed.C.I. 60, 61, 62, 63, 64, 65, 145; C.W. 80.

Curriculum I. Four-Year Curriculum for Teachers of Handicapped Children

FRESHMAN AND SOPHOMORE YEARS

The program for the freshman and sophomore years follows the general pattern outlined for elementary education. See pages 41-43. Electives should be chosen upon the recommendation of the adviser.

JUNIOR YEAR

Course No.	Title	Credits
Ed.71A-B-C	Introduction to Elementary School Teaching	15
Ed.C.I. 61	The Teaching of the Social Studies in the Elementary School....	3
Ed.Psy. 158	Psychology of Adolescence	3
or		
C.W. 132	Later Childhood and Adolescence	3
Ed.Psy. 182	Education of Handicapped Children	2
Ed.Psy. 184	Education of the Slow Learning Child	2
Soc. 50	Areas of Social Work	3
Soc. 91	Case Method Applied to the Study of Human Problems	3
C.W. 80	Child Psychology	3
Sp. 61	Personal Development through Speech	3
	Electives	8-11
Total		45-48

SENIOR YEAR

Course No.	Title	Credits
Ed.C.I. 60	The Teaching of Reading 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	2
Ed.C.I. 145	Remedial Reading	3
Ed.T. 53A-B	Directed Teaching of Subnormal Children	8
Ed.Psy. 120	Basic Principles of Measurement	3
Ed.Psy. 142	Construction and Use of Individual Aptitude Tests	3
C.W. 141	Behavior Problems in Older Children	2
P.H. 59	Health of the School Child	3
	Electives	10-13
Total		45-48

Curriculum II. Junior and Senior Years

For graduates of the usual two-year advanced normal professional curriculum for elementary teachers in teachers colleges and normal schools, or its equivalent, for which 90 blanket credits (two years' work) are allowed toward graduation.

The curriculum leads to the elementary advanced and special certificates and if or when two years of experience in the elementary schools have been completed toward the Minnesota state principals or supervisors certificate, *provided* student has included necessary courses in administration and supervision in his program.

A. Major in Teaching Handicapped Children—30 credits

1. Required courses—Eighteen credits

Ed.C.I. 119	Elementary School Curriculum	3
Ed.C.I. 145	Remedial Reading	3
Ed.C.I. 150	Supervision and Improvement of Instruction	3
Ed.C.I. 151	Diagnosis and Remedial Instruction	3
Ed.Ad. 115	Elementary School Organization	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	Teaching of Science in the Elementary School	2
Ed.C.I. 103	Teaching of Science in the Elementary School	3
Ed.C.I. 63 or	Children's Literature	2
Ed.C.I. 190	Principles of Selection of Materials for Reading in the Elementary School	3
Ed.C.I. 102	Teaching of Social Studies in the Elementary School	3
Ed.C.I. 143	Teaching of Reading in the Elementary School	3
Ed.C.I. 149	Teaching and Supervision of Arithmetic in the Elementary School	3
Ed.C.I. 153	Supervision and Teaching of English in the Elementary School	3

3. Education electives—three credits—to be chosen from the above or any related courses listed under General Courses or Elementary Education.

NOTE—Students are required to take Directed Teaching, Ed.T. 53A-B, unless evidence of satisfactory experience is presented. This is left to the discretion of the major adviser.

B. Subject Matter and Academic Courses—60 credits

1. Sociology and Child Welfare—required twenty-one credits

Soc. 49	Social Problems	3
Soc. 50	Areas of Social Work	4
Soc. 91	Case Method Applied to the Study of Human Problems	3
C.W. 80	Child Psychology	3
C.W. 132	Later Childhood and Adolescence	3
C.W. 141	Behavior Problems in Older Children	2
C.W. 142	Psychology of Atypical Children	3

2. Related Courses—required twenty-one or twenty-two credits

Ed.Psy. 60	Introduction to Measurement and Statistics	2 or 3
Ed.Psy. 120	Basic Principles of Measurement	3
Ed.Psy. 142	Individual Aptitude Testing	3
Ed.Psy. 182	Education of Handicapped Children	2
Ed.Psy. 184	Education of the Slow Learning Child	2
Sp. 61	Personality Development through Speech	3
	Physiotherapy	6

3. Additional courses to total 186 credits for graduation—fifteen to twenty-four credits

Required Course

P.H. 59	Health of the School Child	3
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Note—The C+ average is based on the 30 credits in the major. Excess quality credits earned in all courses will reduce the general elective credits in academic subjects but cannot be used to meet any specific requirement of the curriculum.

VISITING TEACHERS

Major adviser, Professor Edgar B. Wesley

The work of the visiting teacher is social work in the schools for the 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 sciences 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 41.

Four-Year Curriculum for Visiting Teachers

Junior College, 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)	9
Hist. 1-2-3	Civilization of the Modern World	9
Nat.Sci. 7-8-9 or	General Biology	10
G.C. 10A-B-C	Human Biology	9
Soc. 1	Introduction to Sociology	5
Soc. 2	Individual and Minority Group Adjustment	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 (unless exempted by examination).....	2
P.H. 4	Health Problems of the Community (unless exempted by examination)	2
	Physical Education	3 or 5
	Electives	12-17
Total	.....	96

*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 }	3
Ed. Psy. 159	Personality Adjustment and Mental Hygiene	3
Ed. Psy. 182	Education of Handicapped Children	2
Ed. Psy. 184	Education of the Slow Learning Child	2
Ed. T. 69A-B-C	The Teaching of the Social Studies	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. 132	Juvenile Courts and Probation	3
Econ. 161	Labor Problems and Trade Unionism	3
P.H. 59	Health of the School Child	3
	Electives	26-28
Total		90

DESCRIPTION OF COURSES

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 the course that 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.

GENERAL COURSES

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

Ed.55A.‡ Introduction to Secondary School Teaching. A basic course in secondary education. Treats of the secondary school, its present status, historical development, comparative aspects, 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 spring quarter of the junior year.

Ed.55B.‡ Introduction to Secondary School Teaching. A basic course in educational psychology. It treats of 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 spring quarter of the junior year.

Ed.71A-B-C.‡‡ Introduction to Elementary School Teaching. A basic course required of all students in the four-year curricula in elementary and nursery school, kindergarten and primary education. Ed. 71A, Individual Differences; 71B, Learning and Adjustment; 71C, Curriculum, Methods and Organization. Students should enter the course in the fall.

Ed.W. Professional Preparation for Teaching. Not offered.

Ed.81. 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.

AGRICULTURAL EDUCATION

Agr.Ed.1. Introduction to Agricultural Education. An orientation course for students who are interested in exploring the opportunities for employment and service as teachers of agriculture. Qualifications of teachers and a survey of preparatory offerings.

Agr.Ed.54. 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.

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

- Agr.Ed.56. Rural Youth Leadership. A lecture, demonstration, and laboratory course in co-operation 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.
- Agr.Ed.81. 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.
- Agr.Ed.82.‡ 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.
- Agr.Ed.91.‡ Supervised Practice 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.
- Agr.Ed.101. Adult Education in Agriculture. Instructional programs for rural young men not regularly enrolled in school. Analysis of rural youth situations and placement problems. Courses of instruction for adult farm men and women.
- Agr.Ed.103. Facilities and Materials. A study of the physical arrangement for departments of vocational agriculture. Building facilities, room fixtures, references, equipment, visual aids, illustrative materials.
- Agr.Ed.104. Planning Programs. Long-time and annual plans for departments of vocational agriculture. Schedule of activities, analysis of results.
- Agr.Ed.121. Enterprise Analysis.
- Agr.Ed.154. Rural Education and Community Leadership.
- Agr.Ed.199E.‡§ Internship.
- Agr.Ed.221. Field Problems. Making investigations, gathering data, and formulating plans regarding agricultural education.
- Agr.Ed.232.* 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.
- Agr.Ed.286. 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.
- Agr.Ed.291. Seminar in Agricultural Education.

ART EDUCATION

- ArtEd.14. 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.
- ArtEd.17-18-19. 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

§ 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.

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

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.

ArtEd.56-57-58. 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 art units, accumulating and evaluating appropriate materials, and planning group activities in art as a background for directed teaching.

ArtEd.81A-B. 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.

ArtEd.84‡. 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.

ArtEd.85. Art in Life and Education. (For majors in other secondary teaching fields—not open to art education majors or to those with credit in ArtEd. 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.

ArtEd.86-87-88.‡‡ The 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 co-operating quasi-public educational project which emphasizes educational opportunities and responsibilities for encouraging art education in the community. Related theoretic work includes assignments, classes, discussions, and evaluation of specific experiences and problems illustrating art education as it is and as it might become.

ArtEd.151-152-153. 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.

ArtEd.156. 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

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

and racial conflicts will be considered in the light of specific needs of teacher, community worker, layman.

ArtEd.157. Art Movements of Twentieth-Century Scandinavia.

ArtEd.184.‡ Advanced Course in the Teaching and Supervising of Art in the Elementary School. For teachers in service and advanced students. Analysis of the elementary school as the most critical educational 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 co-operative relationships between room teachers and art education specialists.

ArtEd.185.‡ 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.

ArtEd.189. Application of Esthetic Theory in Education. Examination of contemporary theories of art, their psychological and philosophical foundations as revealed through experimental evidence. Application of tested principles of art education to improving 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.

ArtEd.284. Reading and Research in Art Education. Basically a course for systematic class training in research techniques including construction and use of tests and measurements in art education.

ArtEd.295. 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.

ArtEd.296. Seminar in Art Education. Required without credit for one to three quarters of all M.Ed. and other advanced degree 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.

CHILD WELFARE

C.W.10. Introduction to Child Study. Survey of child development, nursery school, parent education, and mental hygiene approaches to child study.

C.W.40. 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.)

C.W.80. Child Psychology. A survey of child psychology and its applications to education of young children.

C.W.130. Motor, Linguistic, and Intellectual Development of the Child. Analysis and interpretation of the scientific literature. Lectures, readings, and reports.

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

- C.W.131. Personality, Emotional, and Social Development of the Child. Analysis and interpretation of the scientific literature. Lectures, readings, and reports.
- C.W.132. Later Childhood and Adolescence. Growth, social adjustment, emotional, mental, and personality development. Training and guidance in leisure-time activities, educational and vocational interests.
- C.W.133-134-135. Research Methods. Methods used in the study of children. Laboratory exercises and problems.
- C.W.140. 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.
- C.W.141. Behavior Problems in Older Children. Nature and origin of behavior difficulties in older children, with particular reference to readjustment in adolescence.
- C.W.142. 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.
- C.W.143. 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.
- C.W.150-151-152. Childhood Education. Philosophy and methods of early childhood education; materials, equipment, community and home relations.
- C.W.160. Physical Growth and Development. The growth of the human body and its systems from early fetal life to maturity.
- C.W.166. Maturity and Aging: Developmental Changes and Adjustment. Survey of scientific literature of changes in ability and learning that accompany maturity and senescence.
- C.W.170. Parent Education. History and survey of programs, materials, and methods. Administration and organization. Lectures, discussions, and reports.
- C.W.185. Children in a Changing World. The effects of social change and social stress upon children. Some emphasis upon war, depressions, and catastrophes. Problems of reconstruction and rehabilitation.
- C.W.190. 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.
- C.W.220-221-222. Seminar in Current Research. Reports on completed research or research in progress. Discussion of methodology and results.
- C.W.225.* Seminar in Developmental Theory. Consideration of various developmental theories and their efficacy in interpreting developmental material.
- C.W.226. 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.
- C.W.227. 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.
- C.W.230-231-232. Seminar in Recent Literature. Reviews of current literature, discussion of fundamental problems, and reports on research. Meetings in alternate weeks.

- C.W.240-241-242. 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.
- C.W.250. Internship in Professional Work with Children. Experience under qualified supervision open under special conditions to graduate students with consent of department.
- C.W.270-271-272.* 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.
- C.W.274-275. Field Work and Technique in Parent Education. Organization and administration of study groups, lesson plans, observations, and field work.
- C.W.290-291. 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.

CURRICULUM AND INSTRUCTION

NOTE—All courses listed under Curriculum and Instruction carry a fee of \$1.50 per credit.

General Courses

- Ed.C.I.104.‡ 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.
- Ed.C.I.105.‡ Visual Aids in Teaching. A study of the characteristics, advantages, limitations, and practical schoolroom use of visual aids of both non-projection and projection types. Gives specific laboratory practice in operation of usual projection machines. Provides information on sources of materials available for all grade levels and illustrates practical methods of using visual aids in various school subjects.
- Ed.C.I.106.‡ 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, in-service training of teachers, and special problems encountered in both small and large systems.
- Ed.C.I.107.‡ 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. Each 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.
- Ed.C.I.107‡-108.‡ Radio in Education. (Same content as Ed.C.I. 107 but expanded somewhat and offered during two quarters in alternate years.)

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

- Ed.C.I.114.‡ The School Health Education Program. Study of various health organizations in city and state in relation to the school health program; organization of the health education programs with the school; construction of the curriculum in school health; evaluation of the school health education program; preparation and requirements for teaching school health education; health supervision and guidance.
- Ed.C.I.117.‡ Rural Education for Administrators and Teachers.
- Ed.C.I.129.‡ 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 teaching sex education at the elementary and secondary levels and integration of material with the total health curriculum. Intended primarily for teachers.
- Ed.C.I.145.‡ 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.
- Ed.C.I.151.‡ Diagnosis and Remedial Instruction. Objective evaluation of the results of teaching; diagnosis of pupil difficulty; remedial work; tests as aids to teaching; following up a testing program.
- Ed.C.I.171.‡ 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.
- Ed.C.I.174-175-176.‡ 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 Clinic.
- Ed.C.I.205.‡ Problems in Visual Education.
- Ed.C.I.207.*‡ 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.
- Ed.C.I.215.*‡ Problems in the School Health Education Program. For advanced students who wish to pursue independent study and experimentation in school health education.
- Ed.C.I.216.‡ 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.
- Ed.C.I.217.‡ Seminar in the School Health Education Program. Discussion and reports on current problems in school health education.
- Ed.C.I.227.*‡ Problems in Rural Education.
- Ed.C.I.271.*‡ Problems in Curriculum Construction. Special problems in the field of the student's individual choice.
- Ed.C.I.273.*‡ 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.

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

Elementary Education

- Ed.C.I.60.‡ The Teaching of Reading in the Elementary School.
- Ed.C.I.61.‡ The Teaching of the Social Studies in the Elementary School.
- Ed.C.I.62.‡ The Teaching of Arithmetic in the Elementary School. A. The Teaching of Arithmetic in Primary Grades; B. The Teaching of Arithmetic in Intermediate Grades.
- Ed.C.I.63.‡ 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.
- Ed.C.I.64.‡ The Teaching of English in the Elementary School.
- Ed.C.I.65.‡ 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.
- Ed.C.I.102.‡ Teaching the Social Studies in the Elementary School.
- Ed.C.I.103.‡ Teaching of Science in the Elementary School.
- Ed.C.I.119.‡ 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.
- Ed.C.I.121.‡ Physical Education in the Elementary School. This course is concerned with the determination and suggested solutions of outstanding current problems in physical education at the elementary school level. Emphasis is placed upon understanding the child and those of his problems with which this field should be concerned, understanding the role of the classroom teacher, and the common problems in organization, planning, instruction, and evaluation at the elementary level. (Same as Phys.Ed. 113E).
- Ed.C.I.130.‡ Problems of Childhood Education. Lectures and readings on the philosophy and current methods of early childhood education; the needs of children and the means of integrating the school with the home and community.
- Ed.C.I.143.‡ Teaching 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.
- Ed.C.I.144.‡ Teaching of Reading in Junior and Senior High Schools. A study of the teaching procedures, objectives, and materials, with special consideration for the teaching of reading in the various subject-matter fields.
- 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.
- Ed.C.I.147.‡ Workshop in the Language Arts. The first hour will be given over to a series of lectures on methods and curriculum in reading, writing, speaking, and listening, from the kindergarten to college, with different lectures each week. Relationships to child development, to social studies, and the like will be stressed. At the second hour group and individual conferences will be held on

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

- problems pursued by individual teachers in relationship to their own teaching. Lectures may be registered for without credit. Three credits may be obtained by those pursuing problems and turning in reports.
- Ed.C.I.149.‡ 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.
- Ed.C.I.150.‡ 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; class studies.
- 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.
- Ed.C.I.157.‡ Practice in Supervision. Individual research on special supervisory problems; especially intended for supervisors in service.
- 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.
- Ed.C.I.173A.‡ Organizing Units of Instruction in the Elementary School. A consideration of the principles and procedures involved in the organization of units (center of interest units, activity units, experience units, etc.) utilizing natural science and social studies content in the development of reading skills, oral and written composition skills, arithmetic skills, study skills, and desirable social behavior.
- Ed.C.I.181.‡ Foundations of Elementary School Methods. A survey of the current philosophy and research which form the base for improvement of elementary school instruction. Observation in the demonstration school.
- Ed.C.I.190.‡ Principles of Selection of Materials for Reading in the Elementary School. An advanced course in reading and selection of materials suitable for the elementary school with emphasis upon curriculum needs, principles of child development, and scientific determination of reading difficulty.
- Ed.C.I.226.‡ Seminar in Elementary School Problems.
- Ed.C.I.261.*‡ Special Problems in School Supervision. 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.
- Ed.C.I.263.*‡ Research in Arithmetic Instruction. A study of recent research in curriculum, graduated subject-matter, methods, materials, and supervision of arithmetic.
- Ed.C.I.264.*‡ Research in Educational Diagnosis. A study of recent research in the methods of diagnosis in education, and the techniques of preventive and remedial teaching.
- Ed.C.I.265.*‡ Research in Supervision. A study of recent research in supervision, teacher rating, surveys of instruction and school and community.

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

Secondary Education

- Ed.C.I.113.‡ 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.
- Ed.C.I.122.‡ 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.
- Ed.C.I.125.‡ 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.
- 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.
- Ed.C.I.132.‡ Teaching the Basic Business Subjects. Recent trends and developments in teaching junior business training, economic geography, marketing, business law, consumer education, and bookkeeping.
- Ed.C.I.133.‡ Consumer Education in the Secondary Schools. Need for consumer education. Organizing a program in the school. Contribution of various subject-matter areas.
- Ed.C.I.134.‡ 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 protection. Development of teaching units. Emphasis on teaching methods and recent aids and materials.
- Ed.C.I.135.‡ 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.
- Ed.C.I.136.‡ 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 non-reimbursable programs. A basic course for teachers, coordinators, and administrators of distributive education programs.
- Ed.C.I.137.‡ Materials and Methods in Distributive Education Programs. 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.
- Ed.C.I.138.‡ Supervisory Training in Distributive Education. Supervisory training problems and elementary training techniques used in stores and offices designed to improve the on-the-job experience of co-operative part-time students and to enable the coordinator to conduct short unit courses for store and office supervisors.
- Ed.C.I.139.‡ 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.
- Ed.C.I.141.‡ 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.

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

- Ed.C.I.142.‡ Evening School Distributive Education Classes. Selection and training of evening school instructors; planning and promoting evening distributive education classes; sources of teaching materials; teaching methods adapted to evening school programs.
- Ed.C.I.144.‡ Teaching of Reading in the Upper Grades and Junior and Senior High Schools. A study of the teaching procedures, objectives, and materials, with special consideration for the teaching of reading in the various subject-matter fields.
- Ed.C.I.168.‡ Current Developments in the Social Studies. A survey of contemporary literature, curricular trends, and developments in method.
- Ed.C.I.169.‡ Extra-curricular Activities. Types of activities in junior and senior high schools; aims and value; practices in organizing, administering, and supervising; methods of evaluation.
- Ed.C.I.170B.‡ 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.
- Ed.C.I.173B.‡ 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 level.
- Ed.C.I.191.‡ Advanced Course in the Teaching and Supervision of Secondary School Mathematics. Evaluation of the present practices in curriculum materials, content, and administration of junior and senior high school mathematics.
- Ed.C.I.198.‡ Recent Literature in Methods and Curriculum in Secondary School English.
- Ed.C.I.199E.‡ Internship. Directed teaching and practice work at the graduate level for candidates for the master of education degree.
- Ed.C.I.201.*‡ 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.
- Ed.C.I.204.‡ Social Studies Curriculum. A review of the techniques and practices of curriculum-making in the social studies at all grade levels.
- Ed.C.I.222. Seminar—Current Problems in Techniques of High School Instruction.
- Ed.C.I.225.*‡ 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.
- Ed.C.I.238.*‡ Problems in Distributive Education. Investigation of particular problems in the field of distributive education intended for those qualified to make intensive studies.
- Ed.C.I.239.*‡ Problems in Business Education. Special investigations in the field of the student's interest. Consult instructor before registering.
- Ed.C.I.254.‡ Supervision of the Social Studies. Reviews of techniques of supervision as applied to the social studies. Particular attention to curriculum making and measurement.
- Ed.C.I.266.‡ Supervision of Instruction in the Secondary Schools. 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.

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

- Ed.C.I.287.*‡ 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.
- 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.
- Ed.C.I.294.*‡ 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.
- Ed.C.I.296.*‡ Special Problems in Teaching English. Special research problems in the field of the student's individual choice.

Higher Education

- Ed.C.I.184.‡ Supervision of Student Teaching. Primarily for teachers engaged in the direction of student teachers in elementary and secondary education.
- Ed.C.I.228.*‡ 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.
- Ed.C.I.250.‡ 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.
- Ed.C.I.251.‡ 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.
- Ed.C.I.252.‡ 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.
- Ed.C.I.284.*‡ 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.

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

Ed.C.I.285.‡ The Professional Education of Teachers. A basic course for present and future instructors and administrators in departments and colleges of education, 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; research.

EDUCATIONAL ADMINISTRATION

General Courses

- Ed.Ad.124. Public School Administration. The organization, administration, and general support of public schools in states and local school districts.
- Ed.Ad.210.* 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.
- Ed.Ad.225.* 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.
- Ed.Ad.226.* School Plant Planning and Management. Plant program planning and financing, including operation and maintenance of public school buildings.
- Ed.Ad.227.* Teacher and Employee Administration. Employment practices, salary schedules, personnel records and reports, welfare procedures, improvement in service and legal aspects of instructional and non-instructional school employee administration.
- Ed.Ad.228.* 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.
- Ed.Ad.230.* 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.
- Ed.Ad.235. Seminar in Educational Administration. Enrolment limited to candidates for Master's degrees under Plan A and candidates for Ph.D. degrees in educational administration.
- Ed.Ad.280. School Surveys.

Elementary Education

- Ed.Ad.115. 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.

Secondary Education

- Ed.Ad.133. 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.
- Ed.Ad.167. Junior High School. Sources of the movement; purposes, functions, and limitations; types of reorganization; fundamental problems of reorganization; reorganization of subject matter.

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

- Ed.Ad.218. Recent Literature in Secondary Education.
- Ed.Ad.263. Organization of Secondary Education. The organization of secondary school units, types of schools, and internal organization for administration and supervision.
- Ed.Ad.264. Administration of Instructional Activities in the Secondary School. The administration of guidance, provisions for scholarship, curriculum, extra-curricula activities, and school control.
- Ed.Ad.265. Administration of Non-instructional Activities in the Secondary School. Housing, finance, marks, forms, records, reports, and community relationships.
- Ed.Ad.270.* Special Problems in Secondary Education. A course designed for those qualified to undertake research.

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.
- Ed.Ad.274. The Junior College. The present status of the junior college, its development, purposes and functions, organization, curriculum, and probable trends.
- Ed.Ad.290. Financing Higher Education.
- Ed.Ad.291. Public Relations for Colleges and Universities.

EDUCATIONAL PSYCHOLOGY

General Courses

- Ed.Psy.60. 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.
- Ed.Psy.120. 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 opportunity to construct an examination in the field of his major interest.
- Ed.Psy.133. 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.
- Ed.Psy.140. 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.
- Ed.Psy.141. Group Aptitude Testing. A study of group aptitude tests for all school levels with special emphasis on their reliability and validity as instruments for educational and vocational guidance.
- Ed.Psy.142. Individual Aptitude Testing. A study of methods and practice in the administration of individual mental tests.
- Ed.Psy.143. Individual Mental Testing Laboratory. A practice course in the administration of individual mental tests.
- Ed.Psy.150. Psycho-educational Clinic. Conducted in co-operation with existing clinics and agencies in the Twin Cities. Students will receive practice in giving psychological examinations, in case study, and in interpretation of case records.

- Ed.Psy.159. 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 as well as to the conditions under which a teacher or counselor can safely attempt remedy or treatment.
- Ed.Psy.208.* 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.
- Ed.Psy.216-217-218. 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.
- Ed.Psy.216a,217a,218a. 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.
- Ed.Psy.219. 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.
- Ed.Psy.220-221. Advanced Theory of Measurement. An examination of the principles underlying construction and use of psychological and educational measuring instruments, and of the limitations of tests for purposes of measurement in experimentation and in evaluation of students' work.
- Ed.Psy.225,226.* 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 techniques for collecting information regarding a student, the making of a diagnosis, and the techniques of counseling and interviewing. Ed.Psy. 225, Diagnosis; 226, Interviewing and Counseling.
- Ed.Psy.233.* Problems in Guidance and Personnel Work. Investigations of particular problems in the student personnel field on an individual project basis. No class meetings.
- Ed.Psy.240.* Problems in Measurement. Intensive study and individual research in problems of educational and vocational measurement.
- Ed.Psy.243.* 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.
- Ed.Psy.253.* Research Problems.
- Ed.Psy.260. 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.
- Ed.Psy.290-291. Individual Differences. A study of group and individual differences and their relations to educational practice.
- Ed.Psy.292.* Recent Literature in Educational Psychology. Readings and reports on problems in educational psychology.

Ed.Psy.293-294.* Psychology of Learning. 293, a survey of research and a statement of principles in human learning, and their implications for curriculum and instruction; 294, recent literature and research in human learning.

Elementary Education

Ed.Psy.113-114-115. Psychology of Elementary School Subjects. A discussion of the research studies in the field of psychology of elementary school subjects.

Ed.Psy.182. Education of Handicapped Children.

Ed.Psy.183. Psychology of Gifted Children. A study of the abilities and characteristics of intellectually gifted children and adults.

Ed.Psy.184. Education of the Slow Learning Child. A study of the physical and mental traits of intellectually subnormal children and methods of adjusting the school program to their needs.

Secondary Education

Ed.Psy.158. Psychology of Adolescence. A study of changes characterizing the transition from childhood to adult life. Implications for guidance during the period of secondary education.

Ed.Psy.282. 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.

See also Ed.Psy. 182 and 183 above under Elementary Education.

Higher Education

Ed.Psy.250. 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.

Ed.Psy.251. 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 Non-academic Personnel Procedures.

Ed.Psy.254. 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.

Ed.Psy.281. Practice in Personnel Work. Designed to give properly qualified students experience in the use of psychological and related methods in dealing with individuals at college and adult levels.

HISTORY AND PHILOSOPHY OF EDUCATION

General Courses

H.Ed.71. Brief Course in History of Education. Current school problems and educational theories in the light of their history. Emphasis upon 18th and 19th centuries, the work of great educators, and education in the United States.

H.Ed.76. Introduction to the Philosophy of Education. This course is designed to introduce undergraduate students to the basic subject matter of educational philosophy.

H.Ed.101. 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.

- H.Ed.102. History of Modern Secondary and Higher Education. A historical study of the origin, aims, growth of existing types of American and European secondary schools.
- 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.
- H.Ed.110. Intercultural Education. Problems of race, religion, nationality and other group relations in their bearings on and challenge to education.
- H.Ed.131. Comparative Education. This course compares European, Asiatic, and American systems and philosophies of education. Emphasis will be placed on exploring the possibilities of international education.
- H.Ed.141. Critical Issues in Contemporary Education. Primarily intended for graduate students who have a meager background in educational philosophy. Designed to introduce students to the basic subject matter of educational philosophy; centered on problems of teachers and administrators. Not open to students who have completed H.Ed. 176. (Replaces H.Ed. 140 and 176.)
- H.Ed.155. 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.
- H.Ed.178. Education and Problems of American Democracy. A study of the conflicts and tensions in current American life as these affect the program of the public schools and colleges.
- H.Ed.179. Critical Thinking for Teachers. Through the practical examination of typical educational materials, this course aims to increase the ability of prospective teachers to think more logically, to read and listen more critically, and to convey something of this ability to their own students.
- H.Ed.180. The School and the Social Order. This course deals with some of the controversial social issues confronting schools today, such as the relation of education to the state, the influence of pressure groups, etc.
- H.Ed.182. Comparative Philosophies of Education. A study of issues in educational philosophy. The major works of contemporary educational philosophers will be critically reviewed in an attempt to understand conflicting viewpoints.
- H.Ed.241.* Problems in the History and Philosophy of Education. For graduate students interested in research and original work in these areas.
- H.Ed.242. Seminar in Educational Philosophy. For advanced students of educational philosophy; critical study and discussion of special problems in educational philosophy.

Elementary Education

- 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.

Secondary Education

- H.Ed.102. History of Modern Secondary and Higher Education. A historical study of the origin, aims, growth and existing types of American and European secondary schools.

HOME ECONOMICS EDUCATION

- H.E.Ed.90. 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 reports.
- H.E.Ed.91.‡ Observation, Materials, Teaching in Home Economics. The psychological bases for teaching; investigation and collection of facts on teaching situations through observation and participation in school activities; study of teaching materials and method.
- H.E.Ed.92. Teaching Problems in Home Economics. Reports, discussion, conferences on the planning of units, teaching procedures, illustrative materials, and equipment.
- H.E.Ed.93‡-94.‡ Supervised Teaching in Home Economics. Observation, participation, and actual teaching experience under supervision in different home economics situations and on different age levels. The student must have received a grade of C or higher in H.E. 3, 4, 21, 22, 27, 34 (or 170), 40, 41, and must have completed Home Experience in Foods, Clothing, and other phases of home economics. One month full-time field work in the state.
- H.E.Ed.95. Field Experience for Home Demonstration 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.; permission of the head of Home Economics Education and the director of Agricultural Extension is required for registration.)
- H.E.Ed.192. Evaluation in Home Economics Education. 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.
- H.E.Ed.193A. 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.
- H.E.Ed.193B. 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.
- H.E.Ed.194A. Adult Education in Home Economics. An analysis and study of the problems affecting community and family living; methods and techniques used in helping men and women and out-of-school youth meet present situations. Course is planned for teachers and supervisors of adult classes, extension and farm security workers.
- H.E.Ed.194B. Adult Education in Home Economics. Objectives of adult education to meet present needs; planning a community program; teaching procedures; discussion of special problems. Course is planned for teachers and supervisors of adult classes.

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

- H.E.Ed.197.‡ Organization and Methods of Related Art Teaching. Organization of a related art course and methods of teaching art as applied to familiar objects and processes. The course is planned on an individual problem basis. Permission of the instructor is required.
- H.E.Ed.199E.‡ Internship. Directed teaching and practice work at the graduate level for candidates for the master of education degree.
- H.E.Ed.243. 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.
- H.E.Ed.292.* Problems in Evaluation. A continuation of Course 192, with emphasis upon individual problems in the field of evaluation.
- H.E.Ed.293.* Problems in Home Economics Education. Offers opportunity for graduate students to study current educational problems independently on the level of major interest—elementary, secondary, 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.
- H.E.Ed.294.* 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.
- H.E.Ed.295.* Seminar in Home Economics Education. Offers opportunity for group discussion and reports on current problems at the various educational levels.

INDUSTRIAL EDUCATION

Shop and drawing courses—The manipulative courses named following are offered in the Department of Industrial Education, 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. (See bulletins and schedules in Architecture, Art, Art Education, Drawing and Descriptive Geometry, Agricultural Engineering, Mechanical Engineering, etc.) The special curriculum lists some of these courses as required and others may be elected, if prerequisites can be met. 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 45 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 45 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. This department desires to serve other divisions of the University in so far as its shop and drawing facilities will permit.

- Ind.1.‡ Basic Woodwork. An introduction to woodwork with emphasis on the use of common hand tools. Fundamental skills, processes, projects, and related information as applied to the teaching of industrial arts.
- Ind.2.‡ Machine Woodwork. Instruction and manipulative experience, including maintenance of the common woodworking machines; selected projects and jobs.

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

- Ind.3.‡ Shop Finishing. A study of materials and processes used in the finishing of woods, metals and other media; the preparation of display samples in all areas covered.
- Ind.5.‡ 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.
- Ind.6.‡ Applied General Drawing. Orthographic projection, pictorial representation, sheetmetal developments and blueprint reading.
- Ind.7.‡ Building Construction Drawing. Application of the theory of orthographic projection and pictorial representation to building construction. Selection of sites, design, floor plans, front and side elevations, wall sections and architectural symbols. Representation of shapes, sizes, materials, methods of construction, equipments and finishes.
- Ind.10.‡ Basic Electricity. An introduction to electricity as an area of industrial arts. Theories, fundamental skills, processes, projects, and jobs.
- Ind.11.‡ Special-Class Woodwork. For teachers of art, primary work, exceptional classes, etc.; lectures, demonstrations, and shop practice; not open to those with college credit in woodworking.
- Ind.12.‡ 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.
- Ind.15.‡ Basic Graphic Arts. An introduction to the major industry of printing through five fundamental units—type-setting and presswork, silk screen printing, linoleum engraving, photography and general duplicating processes; units planned to permit their use in general or unit shop situations.
- Ind.16.‡ 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; some experience in etching, engraving and book-binding.
- Ind.20.‡ Craft Work—A. Manipulative experiences with a number of media suitable for industrial arts courses, clubs and activities; art metal, silver, leather, etc.
- Ind.21.‡ Craft Work—B. Casting, fabrication and finishing of common plastics, block printing and painting on textiles, the flocking process applied to various other materials.
- Ind.25.‡ Machine Shop. An introduction to machine tool operations; performance, application of processes and solution of related problems as applied in industrial arts.
- Ind.26.‡ Advanced Machine Shop. Continues Ind. 25 with emphasis on fundamental skills, machine set-ups, tool grinding, shop theory and practice.
- Ind.30. Graphic Presentation. Typical methods of the graphic portrayal of data; use of educational and social facts for drill in construction and interpretation.
- Ind.40. Analysis. Necessity for, and types of, instructional analysis; individual work upon selected fields, for course construction purposes.
- Ind.42. Course Organization. Development of techniques for selection and arrangement of instructional materials; both general and vocational classes and groups are considered.
- Ind.44. 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.

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

- Ind.50A-B-C.‡ Directed Teaching. Three quarters or nine credits required. (Consult with adviser or critic teacher.)
- Ind.60. 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.
- Ind.61. Practices in Vocational Education. Plans of organization and control; types of schools and classes; public versus private and corporation training; state and federal aid; teacher preparation; efficiency factors.
- Ind.66. Related Subjects. Theories, practices, and problems of related instruction; special reference to mathematics, drawing, science, safety, and other auxiliary and technical information; group study, unit courses, usable techniques of management.
- Ind.70.‡ The Teaching of Industrial Subjects. Conduct of shop classes, with and without reference to production work; plans, demonstrations, drill, grading, reports, and records. General concepts and techniques of method particularized for school shop situations.
- Ind.80. Introduction to Industrial Arts. Orientation to the teaching of industrial arts; overview of origins, aims, offerings, techniques, schedules, etc.
- Ind.100. 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.
- Ind.101. Tests in Industrial Subjects. Study and application of principles of achievement test construction to shop and drawing subjects; evaluation of results.
- Ind.102. The General Shop. (Not a shop course.) Purpose of the new general shop organization; current practice as to types of shops, equipment, instructional materials and procedures, pupil personnel plans, etc.
- Ind.103. Instructional Aids. Consideration of various instructional aids; preparation and plans for their use.
- Ind.105. Administration of Industrial Education. Chiefly administration and, therefore, open to superintendents, principals, and teachers not specializing in the field named; general and vocational phases considered; objectives, programs and practices; laws, rulings, and standards for aid; significant literature.
- Ind.107. Co-ordination. Province and duties of co-ordinators in trade schools, part-time programs, and cosmopolitan high schools offering training opportunities. Informational for school administrators and in the nature of guidance and training for those having interest in entering this new type of school work.
- 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.
- Ind.109. 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.
- Ind.110. 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.

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

- Ind.115. 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.
- Ind.125. Philosophy and Practice of Industrial Education. History, objectives, development, and current practices of the field. Three phases considered—industrial arts as general education, school preparation and upgrading for trade pursuits, induction and adjustment of workers by employers.
- Ind.135. Industrial Course Construction. Principles and techniques of course construction and unit development; experience in planning, organizing and building a course of study.
- Ind.172. 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.
- Ind.200.* Research Problems. Independent work for the degrees master of arts, Plan B, and master of education, Plan Y. Prerequisite: approval of candidacy for either degree. 3, 6, or 9 credits per enrolment. Individual conferences.
- Ind.250-251. Literature of Industrial Education. Six credits assumed. Survey of printed reports; critical analysis; selection of thesis problems; formulation of work plans; reports of progress; organization and presentation; acquaintance with all types of literature in the field.

LIBRARY SCIENCE

Statement of fees—The fees for Library Science are \$3.50 per credit or \$42 per quarter for residents of Minnesota and \$6.25 per credit or \$75 per quarter for nonresidents.

- Lib.Sci.50. Libraries and Society. History of libraries; types of libraries, library agencies and services; libraries in the modern world; librarianship as a profession.
- Lib.Sci.51. Origins of the Book. Survey of writing and the materials and methods of writing from earliest times through the spread of printing in the fifteenth century.
- Lib.Sci.52. History of Publishing. Publishers and publishing from the sixteenth century to the present.
- Lib.Sci.53. School Library Administration and Practice. The organization and management of libraries in schools.
- Lib.Sci.54. Public Library Administration. Management problems in public libraries; finance, personnel, equipment, extension work, etc.
- Lib.Sci.55. College Library Administration. A survey of administrative problems in libraries of institutions of higher education.
- Lib.Sci.56. Current Issues. Reading in professional library literature on the unsolved problems and current issues of librarianship.
- Lib.Sci.57. School Library Problems. Organization and administration of libraries in large units, relationships of school libraries and public libraries. Professional training of school librarians.
- Lib.Sci.60. Sources of Information about Library Materials. Reviewing media "best" lists, trade bibliographies, etc. Principles of book selection and order work.

- Lib.Sci.61. Library Practice. Practice under supervision, in Minneapolis and St. Paul libraries. The time and character of the practice will be arranged individually to suit student aptitudes and needs, usually in the second and third quarters.
- Lib.Sci.62. Reference I. General reference tools and other sources of information in reference work; theory and practice of reference work.
- Lib.Sci.63. Reference II. Reference work in subject fields; the reference department; practical bibliography.
- Lib.Sci.64. Reference III. Specialized reference tools; government publications; administration of the reference department; special problems in large libraries.
- Lib.Sci.65. National and Regional Bibliography. The most important national and regional bibliographies in English and other languages; their use as aids in book selection and acquisition; the history of bibliography.
- Lib.Sci.66. The Literature and Bibliography of Education. Sources of information in special fields of education.
- Lib.Sci.70. Reading Guidance. The library user, his personality and background; the matching of book and user and the improvement of reading habits.
- Lib.Sci.71. Reading Guidance for Children. The reading interests of children; book selection and reading guidance; the children's room, its organization and administration.
- Lib.Sci.72. Reading Guidance for Adolescents. Book selection and reading guidance for the adolescent; the adolescent in the public library and in the high school library.
- Lib.Sci.73. Reading Guidance for Adults. Factors affecting adult use of the library; reading interests of adults; book selection for adults; biography of the book world.
- Lib.Sci.74. Library Materials in the School's Instructional Program. Sources of information about teaching materials. Methods of cooperation between teachers and librarians.
- Lib.Sci.76. Library Service in Hospitals.
- Lib.Sci.77. Book Selection for Hospital Patients.
- Lib.Sci.78. Reading and the Mental Patient.
- Lib.Sci.79. Medical Reference Work.
- Lib.Sci.80. Hospital Library Practice.
- Lib.Sci.81. Theory of Bibliography. Introduction to the description and arrangement of books in catalogs, bibliographies, and on library shelves.
- Lib.Sci.82. Cataloging and Classification. Methods of dictionary card cataloging and shelf classification, and practice in principles of cataloging and classification especially for small libraries.
- Lib.Sci.84. Subject Cataloging and Classification. Study of the Library of Congress scheme of classification and subject heading.
- Lib.Sci.85. Special Problems. Individual study on library problems for advanced students in Library Science.
- Lib.Sci.126. Subject Bibliography. The bibliography of subject fields; standard works, current lists, and bibliographical manuals.

METHODS AND DIRECTED TEACHING

Honor point average—C+ average (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 directed teaching courses. See page 14.

Statement of fees—For all courses in methods, directed teaching, and special methods and directed teaching combined, a fee of \$1.50 per credit is charged. Taking the psychological examinations and a C+ average in the major are prerequisite to all special methods and student teaching courses. For Clinical Methods and Practice in Speech Pathology see Ed.C.I. 174-175-176. For methods and directed teaching in special subjects see department concerned.

Nursing Education

Ed.T.51A,B.‡ 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.

Recreation Leadership

Ed.T.84A-B-C.‡ Practice and Field Work in Recreation Leadership. To be taken during the junior year.

Ed.T.85A-B-C.‡ 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.

School Health Education

Ed.T.83.‡ 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.

Elementary Education

Ed.T.53A-B.‡ The Teaching of Handicapped Children. Students will have opportunity to observe work with the special classes, and to teach under direction. Conducted in co-operation with the public schools of Minneapolis and St. Paul.

Ed.T.54A-B.‡ Directed Teaching in the Elementary School.

Ed.T.55.‡ Principles of Early Childhood Education. The development, aims, and organization of kindergarten and nursery school education. A consideration of the curriculum and methods.

Ed.T.56.‡ 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.

Ed.T.57.‡ 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.

Ed.T.58.‡ 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.

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

- Ed.T.70.‡ 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 preparing programs, reports.
- Ed.T.77.‡ Teaching in Nursery School. Five half-days each week spent in classroom participation under supervision.
- Ed.T.78.‡ Teaching in the Kindergarten. Five half-days each week spent in classroom participation under supervision in public or private schools.
- Ed.T.79.‡ Teaching in the Primary Grades. Five half-days each week spent in classroom participation under supervision in public or private schools.

Secondary Education

- Ed.T.52.‡ Directed Teaching. Teaching under supervision in the University High School and in the Twin City schools. The course calls for one to four periods daily at the school where the work is assigned. Registration in this course is limited to students who have completed special methods courses or have had teaching experience. Practice teaching in academic subjects is *normally* combined with special methods courses in a one-year teachers' course beginning in the spring quarter. See below.
- Ed.T.61.‡ Teachers' Course in Norwegian.
- Ed.T.62.‡ Teachers' Course in Swedish.
- Ed.T.66A-B-C.‡ The Teaching of English. A one-year course beginning in the spring quarter. This course is required of all students with a major in English.
- Ed.T.66Am.‡ The Teaching of Composition in the Senior High School. Objectives of composition; selection of subject matter and its relation to the problem—project method of assignment; problems of grading composition; problems of teaching grammar, punctuation and spelling, oral composition.
- Ed.T.66Bm.‡ The Teaching of Literature in the Senior High School. Objectives of literature teaching; differentiated method for appreciation and information; methods of handling different types such as fiction, drama, poetry, and essay; survey courses; home reading; illustrative material.
- Ed.T.67A-B-C.‡ The Teaching of Mathematics. A one-year course beginning in the spring quarter required of all students with a major in mathematics.
- Ed.T.67Am-Bm.‡ The Teaching of Secondary School Mathematics. Discussion of procedures in selecting and organizing materials and in teaching secondary school mathematics.
- Ed.T.68A-B-C.‡ The Teaching of Natural Science. A one-year course beginning in the spring quarter required of all students with a major in natural science.
- Ed.T.68Am-Bm.‡ The Teaching of Secondary School Science.
- Ed.T.69A-B-C.‡ The Teaching of the Social Studies. A one-year course beginning in the spring quarter required of all students with a major in the social studies.
- Ed.T.69Am-Bm.‡ The Teaching of the Social Studies in the Secondary School.
- Ed.T.70A-B-C.‡ The Teaching of the Modern Languages. A one-year course beginning in the spring quarter required of all students with a major in a modern language.
- Ed.T.71A-B-C.‡ The Teaching of Latin. A one-year course beginning in the spring quarter required of all students with a major in Latin.
- Ed.T.73A-B-C.‡ Directed Teaching of Business Subjects. A one-year course required of all students majoring in business education.

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

- Ed.T.74.‡ The Teaching of Journalism. A study of methods and techniques of presenting journalism instruction to students of less than college level. Required of all students with a minor in journalism.
- Ed.T.80.‡ The Teaching of Typewriting. Survey of general methods and techniques in teaching typewriting. Demonstration lessons taught by members of the class.
- Ed.T.81.‡ The Teaching of Shorthand. An examination and evaluation of various methods of teaching shorthand. Application of psychological principles to teaching. Opportunity for demonstration lessons.
- Ed.T.82.‡ 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.
- Ed.T.88A-B-C.‡ The Teaching of Speech. A one-year course beginning in the spring quarter required of all speech majors and involving methods and directed teaching in Speech and English. Students must also have additional work in English methods. Consult major adviser in speech or English for appropriate course.

MUSIC EDUCATION

NOTE—For description of courses in Music and statement of fees, see *Bulletin of the College of Science, Literature, and the Arts* or the *Class Schedule*.

- Mu.Ed.4-5-6.‡ 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.
- Mu.Ed.50A.‡ 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.
- Mu.Ed.50B.‡ 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.
- Mu.Ed.53.‡ 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.
- Mu.Ed.59.‡¶ 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.

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

¶ Four credits are required in Mu.Ed. 59. The course should be repeated until all four credits are earned.

- Mu.Ed.60-61-62.‡ 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.
- Mu.Ed.63.‡ Band Conducting. A course designed to give practical experience in conducting recommended band literature of all grades.
- Mu.Ed.64.‡ Band Organization. A course dealing with the organization, promotion, curriculum, administration, equipment, and other problems of the school band.
- Mu.Ed.65.‡ 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.
- Mu.Ed.68. Conducting of Instrumental Music and Survey of Materials. 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.
- Mu.Ed.103E.§ Psychological Foundations of Music Education.
- Mu.Ed.104E.§ 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.
- Mu.Ed.105E.§ Advanced Topics in Instrumental Music Education. Designed for experienced teachers and qualified students, this course deals with special topics in instrumental music education.
- Mu.Ed.224E.§ Seminar and Individual Research Problems in Music Education. A knowledge of elementary statistics is required. Individual projects; guidance; remedial procedures; interrelationships.
- Mu.Ed.225E.‡‡ Advanced Applied Music.

NURSING EDUCATION

- Nurs.Ed.28. Observations in Psychiatric Nursing. A course planned to supplement experience in psychiatric nursing and to meet individual needs. Includes survey of psychiatric nursing; emphasizes scientific care, treatment, diagnosis, prophylaxis, rehabilitation, psychosomatic and social aspects of patient care in hospitals and community agencies. Classes, individual conferences, clinics and observations in areas of psychiatric practice. Open only to a special group of students detailed from Veterans Administration neuropsychiatric hospitals.
- Nurs.Ed.29A,B. 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

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

‡‡ A special fee of \$30 per quarter is charged for 2 credits in applied music.

§ 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.

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.

Nurs.Ed.33A,B. 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.

Nurs.Ed.34A,B. 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 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.

Nurs.Ed.37A,B. 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 students interests, needs, and abilities are recognized in planning content of the course.

Nurs.Ed.40A,B. 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.

Nurs.Ed.46A,B. Advanced Course in Rural Nursing. Organized instruction and clinical experience in rural hospital nursing including: home and hospital deliveries, care of the newborn, obstetric anesthesia, operating room experience, and participation in the local school health program.

Nurs.Ed.47A,B. 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.

- Nurs.Ed.52A,B. Advanced Surgical Nursing. A course providing for guided study of principles, techniques, and problems of surgical nursing. Doctors' and nurses' lectures, conferences, seminars, demonstration, 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.
- Nurs.Ed.55. 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, discussion, and field trips.
- Nurs.Ed.56. Operating Room Administration. A course dealing with the administration and management of an operating room. Taught by lecture, discussion, and field trips.
- Nurs.Ed.57A,B. 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.
- Nurs.Ed.59. 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.
- Nurs.Ed.60. 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.
- Nurs.Ed.61A,B. 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.
- Nurs.Ed.63. 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.
- Nurs.Ed.65. Analysis of Nursing Care. Studies of nursing practice. Each student works on an individual problem with the view to designing an improved nursing procedure.

- Nurs.Ed.66. Introduction to Advanced Clinical Nursing. The present trends in scientific studies and public health 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 organization 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.
- Nurs.Ed.66A. Introduction to Advanced Clinical Nursing. For students enrolled in certificate curriculum in Advanced Rural Nursing. Content selected from content of Nurs.Ed. 66 to meet special need of these students.
- Nurs.Ed.67. Field Practice in Ward Administration. Selected experiences 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 clinical teaching program.
- Nurs.Ed.68. 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.
- Nurs.Ed.69. Survey of Conditions and Trends in Nursing. A study of current problems and issues confronting professional nursing. Lecture and discussion.
- Nurs.Ed.72. Principles of Learning and Methods of Teaching. Study of learning situations in the basic professional program in nursing. Sources, selection, and organization of instructional materials; evaluation of nursing care; content and methods of clinical teaching; measurement of outcomes.
- Nurs.Ed.73. Principles of Economics in Nursing Service Administration. A study of the principles of business administration in their application to hospital organization and management.
- Nurs.Ed.74. 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. Supervised practice as laboratory assistants. This course should preferably be carried during the last quarter of the fifth year, but may not be carried in the same quarter as Ed.T. 51B.
- Nurs.Ed.162. 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 and intelligence in relation to problems in personal, educational and vocational adjustment in nursing. Practice in interpretation of test data and student selection; study of psychological tests, personnel records, orientation periods, remedial programs and counseling interviews in the guidance of student and graduate nurse groups.
- Nurs.Ed.165. 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.
- Nurs.Ed.167. 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.

Nurs.Ed.171. The Curriculum of the School of Nursing. General principles of curriculum making; study of the functions of the graduate nurse in the community as determinants of the clinical and classroom curricula of the professional school. Integration of materials into curricula preparing nurses as community health agents.

Nurs.Ed.190. 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.

Nurs.Ed.271. 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.

PHYSICAL EDUCATION FOR MEN

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

A fee of \$1.50 per credit is charged for all methods and student teaching courses as indicated in the footnotes.

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.4A. Football Fundamentals. Demonstrations and practice in football fundamentals for all positions of a football team.

Phys.Ed.4B. Basketball Fundamentals. Demonstrations and practice in such fundamentals as footwork, passing, dribbling, goal throwing, individual and team defensive tactics.

Phys.Ed.4C. Track Fundamentals. Demonstrations and practice in all track and field events.

Phys.Ed.5A. 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, and fundamental rhythms.

Phys.Ed.5B. 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.

- Phys.Ed.5C. Stunts, Contests, Softball, Baseball. Individual, double and triple stunts; combative stunts; mass contests; weight lifting; softball; baseball fundamentals.
- Phys.Ed.6A. Intramural Sports. Soccer, speedball, and volleyball fundamentals and team play.
- Phys.Ed.6B. Intramural Sports. Ice hockey, handball, and squash rackets.
- Phys.Ed.6C. Aquatics. Advanced swimming, diving, lifesaving, and small crafts.
- Phys.Ed.7A. Games and Relays. Low organized games for gymnasiums, playgrounds, camps, etc.; social games for recreation; progressive game parties; relays.
- Phys.Ed.7B. Boxing and Wrestling.
- Phys.Ed.7C. Recreational Games. Badminton, aerial darts, deck tennis, paddle tennis, table tennis, tether ball, bowling, horseshoes, box hockey, and archery.
- Phys.Ed.8. Tennis and Golf.
- Phys.Ed.9A. Folk Dancing. Folk dances for elementary and secondary schools.
- Phys.Ed.9B. American Country and Ballroom Dancing. Instruction in circle, line, square, and mixer dances; fox trot, waltz, tango, Lindy, rumba, samba, schottische, polka, varsouvienne, and other couple dances.
- Phys.Ed.11A-B. 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.
- Phys.Ed.23A-B-C. 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.
- Phys.Ed.32. Introduction to Physical Education. An orientation course covering briefly the history, vocational aspects, and fundamental principles of physical education.
- Phys.Ed.49. 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 implications 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.
- Phys.Ed.51. Mechanics of Movement. A study of the structure of the body and the principles and mechanics of bodily movements.
- Phys.Ed.52. The Leadership of 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.
- Phys.Ed.55.‡ 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.

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

- Phys.Ed.56. 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.
- Phys.Ed.57. The Operation and Conduct of Play Centers. The second quarter 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.
- Phys.Ed.58. 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.
- Phys.Ed.59. 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.
- Phys.Ed.60. 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.
- Phys.Ed.61. 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.
- Phys.Ed.63. Organization and Administration of Physical Education. Problems of organization, administration, and supervision in required and elective courses, intramural and interschool athletics.
- Phys.Ed.64A-B. 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 acquaintanceship with the common fauna of the Northwest. 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.
- Phys.Ed.65. 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.
- Phys.Ed.66. Officiating Football and Basketball. Qualifications of officials, officiating ethics, discussion of rules and officiating techniques. Three hours per week in officiating practice under supervision.
- Phys.Ed.67. 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.
- Phys.Ed.68. Basketball Coaching. A study of the theory, styles of offense and defense, the conditioning and handling of players in coaching basketball teams.
- Phys.Ed.69. 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.
- Phys.Ed.72. 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.

- Phys.Ed.73,74,75.‡ 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.
- Phys.Ed.78. Scout Leadership. An orientation course for students who are interested in the Boy Scout program.
- Phys.Ed.79. Camp Leadership. Introduction to the field of organized camping. Development of an understanding of the significance of outdoor education.
- Phys.Ed.101. Principles of Physical Education. A study of the aims, scope, and biological aspects of physical education with special treatment of its place in education.
- Phys.Ed.103. Physical Examination. The responsibility of the physical education instructor in the examination of pupils, assisting the physician, follow-up procedures, and keeping of records.
- Phys.Ed.110E.§ 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.
- Phys.Ed.111E.§ Recreation Areas and Facilities. Presentation of the latest material on recreation facilities and areas. Classification, lay-out, design and standards for recreation buildings and areas including the following: the pre-school 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.
- Phys.Ed.112E.§ Programming in Recreation. A study of principles of program planning for an organized offering of recreation opportunities.
- Phys.Ed.116E.§ 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.
- Phys.Ed.121E.§ 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.
- Phys.Ed.131E.§ 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.
- Phys.Ed.135. 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.

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

§ The designation "E" after a course number over 100 signifies that the course is of graduate level in the College of Education but does not carry credit for Plans A and B in the Graduate School.

- Phys.Ed.141E. § 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.
- Phys.Ed.173E. Internship in Physical Education. (1) For inexperienced teachers: Teaching under the supervision of a master teacher, supervision by the principal and/or superintendent as well as the master teacher, participation in school and community activities other than teaching, individual and group conferences. (2) For experienced teachers: Internship equivalent of a practicum nature including one or more of the following: a concentrated experience, a combination of experiences to add more meaning to theoretical courses, a systematic service or field study, observation of teaching, supervision, facilities, etc.
- Phys.Ed.233. Special Administrative Problems in Physical Education in Secondary Schools. Staff organization; supervision; current required and adapted physical education programs; interscholastic athletic problems; legal aspects; professional and public relations.
- Phys.Ed.234. 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 for a specific situation.
- Phys.Ed.236. 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.
- Phys.Ed.238. 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.
- Phys.Ed.241. 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.
- Phys.Ed.242. 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.
- Phys.Ed.247.* Problems in Health Education, 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.
- Phys.Ed.250. 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.

§ 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.

Phys.Ed.261. Seminar in Contemporary Problems in Physical Education and Recreation. Presentation of problems by class members; suggestions presented by local and national leaders in the field; assigned readings and discussions; problems selected for individual study.

PHYSICAL EDUCATION FOR WOMEN

Statement of fees—All activity courses for which registration is required, \$1.75 per quarter. Maximum physical education fee (for activity courses) per student \$3.50.

A fee of \$1.50 per credit is charged for all methods and student teaching courses as indicated in the footnotes. A laboratory fee of \$2 is charged for Phys.Ed. 51.

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
Functional Swimming, American Red Cross
Lifesaving, American Red Cross Senior Course
Water Safety, American Red Cross, Preliminary Water Safety Instructors' Review and Water Safety Instructors' Course

Rhythms

Country Dance
Folk Dance
Modern Dance, Elementary, Intermediate, Advanced, and Composition
Social Dance

Body Building

Individual Body Building
Posture and Conditioning Exercises

Individual Sports

Archery, Elementary and Intermediate
Badminton, Elementary and Intermediate
Bowling
Fencing
Golf, Elementary, Intermediate, Advanced
Horseback Riding, Intermediate, Advanced
Rifle Marksmanship
Skating, Plain and Figure
Tennis, Elementary, Intermediate, Advanced
Social Games and Mixers
Skiing

Team Sports

Basketball
Recreational Games
Softball
Speedball
Volleyball

Team Sports Officiating

Volleyball
Basketball
Softball

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

Rifle Marksmanship
Riding
Swimming
Tennis
Volleyball

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

PROFESSIONAL COURSES FOR UNDERGRADUATE MAJORS

- Phys.Ed.21A-B-C.‡‡‡§ Elementary Physical Education. Fall—Badminton, speedball, soccer, fieldball, fundamentals of rhythm, orientation. Winter—Skating, basketball, folk dancing for elementary and secondary schools, posture and daily life skills. Spring—Tennis, golf, aquatics, ballroom and country dance.
- Phys.Ed.25. 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.
- Phys.Ed.26. 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.
- Phys.Ed.27. 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.
- Phys.Ed.41A-B-C.‡‡‡§ Intermediate Physical Education. Fall—Volleyball, hockey, aquatics, modern dance, tumbling and stunts, apparatus, recreational laboratory. Winter—Basketball, gymnastics, archery, bowling. Spring—Track and field, softball, aquatics, modern dance, advanced tennis.
- Phys.Ed.51.‡‡ Mechanics of Movement. Lectures on the principles of mechanics of movement with laboratory studies involving the kinesiological analysis of sport techniques.
- Phys.Ed.54. Camp Leadership. Practical work in campcraft, organization, and administration of the camp program; responsibilities and duties of a counselor; experience in leadership in camp activities.
- Phys.Ed.56. 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.
- Phys.Ed.57A-B.‡ Technique of Teaching Aquatics. Description of strokes, diving, stunts, and water safety techniques, methods of teaching swimming, student teaching in class, organization and management of competitive and recreational aquatic activities, essentials of pool control and sanitation, the testing program in aquatic skills.
- Phys.Ed.60. 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.
- Phys.Ed.61A-B-C.‡ Technique of Teaching Team Sports. Special techniques for each sport and methods of teaching. Organization of extra-curricular activities. Practice in skills and student teaching within the group.
- Phys.Ed.62. Techniques of Teaching 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 the junior-senior high school program.

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

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

‡‡‡ The \$3.50 per quarter maximum physical education fee (for activity courses) is charged for this course.

§ Students must supply their own tennis and their own golf equipment if possible and pay 50 cents for a tennis permit.

- Phys.Ed.64.‡ Technique of Teaching Group Gymnastics. A study is made of the principles of progression and methods of teaching gymnastics. Student teaching is done within the group.
- Phys.Ed.65A-B.‡ Technique of Teaching Individual and Dual Sports. Special techniques for each sport and method of teaching. Student teaching within the group. Organization of recreational activities.
- Phys.Ed.66. Advanced Physical Education. This course deals with fundamentals in physical education as applied in the elementary school.
- Phys.Ed.71. Applied Physiology. Lectures and laboratory problems demonstrating the physiological bases for objectives and content of the physical education program.
- Phys.Ed.73A.‡ Technique of Teaching Folk Dancing. The racial characteristics and folk arts of people are studied as a background for folk dances. Practice in teaching within the group.
- Phys.Ed.73B.‡ Technique of Teaching Rhythm. A study of methods of teaching all types of rhythmic activities and of teaching any other activity through rhythm. Some consideration is given programs of rhythmic work. Student teaching within the group and also at nearby schools.
- Phys.Ed.73C.‡ Technique of Teaching Modern Dance. Teaching methods in modern dance with emphasis on approaches to creative rhythm work for high school girls. Organization and production of dance programs and demonstrations. Teaching within the group.
- 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 City physiotherapy departments.
- Phys.Ed.80. 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.
- Phys.Ed.82. Principles of Physical Education. Philosophy of physical education and principles underlying curriculum building, methods of teaching, measurement, and outcomes.
- Phys.Ed.83.‡ School Health Education. Method and content. See Ed.T. 83.
- Phys.Ed.84. Problems in Physical Education. 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.
- Phys.Ed.85. 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.
- Phys.Ed.86. Aspects of School Health Appraisal. Content and organization of the school health services. Emphasis on techniques used in detecting atypical body mechanics.
- Phys.Ed.87. 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.

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

- Phys.Ed.88. 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.
- Phys.Ed.89. 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 stage craft and costuming will be included in the course.
- Phys.Ed.90A-B-C.‡ Student Teaching. Student teaching in team and individual sports, orthopedic and remedial work, health, fundamentals of movement and rhythm in Minneapolis elementary and high schools and in university classes.
- Phys.Ed.95. Administration of Physical Education. The study of the professional responsibilities of physical education teachers; the organization of the class and extra-curricular program in the school and community setting; appraisal of activities; protection and classification of students; standards for the operation of the physical education plant.

Courses for Undergraduate and Graduate Men and Women Students

- Phys.Ed.111E.§ 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 method problems in the various activities as well as those peculiar to each activity and possible solutions for conspicuous instructional problems today.
- Phys.Ed.112E.§ 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.
- Phys.Ed.113E.§ 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.
- Phys.Ed.114E.§ Administration of School Health Education. See Ed.C.I. 114.
- Phys.Ed.116E.§ Problems in Physical Fitness. Analysis of current physical fitness problems in the elementary, secondary, and college levels in relation to health, physical education, recreation, and education. Undergraduates with sufficient background in physical education may register for the course. The number of credits allowed will depend upon the type of individual problem studied.
- Phys.Ed.117E.§ Survey of Problems in Method and Instruction of Health Education. This is a course for M.Ed. students who are interested in problems relating to the school health instruction programs. Included are discussions of present trends in the area, reviews of studies relating to methods and curricula, and standards of conduct of programs.

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

§ The designation "E" after a course number over 100 signifies that the course is of graduate level in the College of Education but does not carry credit for Plans A and B in the Graduate School. For courses in Physical Education giving credit in the Graduate School, consult adviser.

Phys.Ed.118E.§ 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.

SCHOOL OF PUBLIC HEALTH

Courses for Undergraduate Students

- P.H.3.†† Personal Health. Elementary principles of normal body function; predisposing and actual causes of disease; ways in which disease may be avoided.
- P.H.4.§†† 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.
- P.H.50.§†† Public and Personal Health. Causes of diseases and of physical defects, fundamental principles and working methods of health conservation and disease prevention. Lectures, discussions, and directed readings.
- P.H.51.§†† Community Hygiene. Elementary concepts of development, spread, and prevention of disease; community programs for disease control.
- P.H.52.§†† Health Care of the Family. (See *Bulletin of the College of Agriculture, Forestry, and Home Economics.*)
- P.H.55. 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 discussions.
- P.H.56. First Aid and Safety for Nurses. (Public health nurses only.) Principles of first aid in home, industry, and community; prevention of accidents; organization of community programs in first aid and safety; professional and legal responsibilities of nurses in administering first aid.
- P.H.57.†† 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.
- P.H.58. Maternal and Child Hygiene. (For nurses only.) The maternal welfare program; importance of breast feeding; conduct of infant welfare clinics in cities and rural communities; consideration of child of preschool and school age as to malnutrition, physical defects, cardiac and nervous disorders.
- P.H.59. 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.

§ 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. For courses in Physical Education giving credit in the Graduate School, consult adviser.

¶ 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.

†† No credit granted for this course in major sequence in public health nursing.

- P.H.60. Tuberculosis and Its Control. History of tuberculosis movement and campaign in the United States; early diagnosis and sanatorium treatments; tuberculosis in children; psychology of tuberculosis; supervision of returned sanatoria patients, state program for eradication of tuberculosis; legislation.
- P.H.62. Principles of Public Health Nursing I. Trends, principles and techniques in public health nursing service including family health guidance.
- P.H.63. Principles of Public Health Nursing II. Organization of public health nursing services; program planning; evaluation; professional problems in public health nursing.
- P.H.65.‡ Field Practice in School Nursing. (For public health nurses only.) 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.
- P.H.66.‡ Field Practice in County Nursing. (For public health nurses only.) The student accompanies the rural nurse on her round 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.
- P.H.67.‡ Field Practice with Family Health Agency. (For public health nurses only.) 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 promotion of physical and mental health and recognition of social problems.
- P.H.70. Practice Teaching in Home Nursing for Public Health Nurses. Includes practice in planning instruction and in teaching adults. Enrolment limited.
- P.H.91. Principles of Human Function. Primarily for students in Phys.Ed. and Public Health. Tissues, physicochemical forces, metabolism, digestion, respiration, neuromuscular functions, circulation.
- P.H.92. Principles of Human Function. Primarily for students in Phys.Ed. and Public Health. Endocrines, excretion, reproduction, special senses, central nervous system, growth and senescence.
- P.H.95. Principles of Human Nutrition (with 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.
- P.H.100. Elements of Preventive Medicine and Public Health. (For nurses and students in medical social work.) 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.
- P.H.102. 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.
- P.H.106. Public Health Administration. Structure, basic functions, and activities of public health agencies; public health laws and regulations; administrative procedures in public health practice; relationship to other governmental and social activities.

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

- P.H.125. The Community Health Education Program. A course intended primarily for those preparing for leadership in community health education to include organization, administration, and evaluation of community health education programs, and the selection, preparation, and use of media commonly employed in health education.
- P.H.141. Social and Economic Aspects of Medical Care. A survey of social and economic forces affecting administration and financing of medical care; the need for sickness insurance, group hospitalization; the concern of government in the provision of prepaid medical care.
- P.H.194. Human Factors in Industry. Primarily for students in the Schools of Business Administration, Public Health, and the Institute of Technology. Job requirements, physiological cost of work, industrial fatigue, industrial hazards, environment, accidents, absenteeism.

Courses in Biostatistics

- P.H.110. Biometric Principles. Introduction to statistical analysis with emphasis on basic principles of statistical reasoning. The description of univariate distributions, normal correlations, simple tests of significance, and goodness of fit.
- P.H.111.‡ Biostatistics Laboratory. Practical training in machine calculation and statistical techniques. To be taken concurrently with Course 110.
- P.H.120. Correlation Analysis. Total, partial, and multiple correlation and regression; correlation ratio; contingency; biserial methods; tetrachoric correlation; rank-order correlation; the symmetrical table and intraclass correlation. Course 121 to be taken concurrently.
- P.H.121.‡ Correlation Laboratory. Practical training in the above techniques of correlation analysis. To be taken concurrently with Course 120.
- P.H.130. Random Sampling Distributions. A 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 should be taken concurrently.
- P.H.131.‡ Sampling Laboratory. Study of the distributions of statistics derived from small samples by practical test. To be taken concurrently with Course 130.

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*.

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

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The Bulletin of the
UNIVERSITY *of* MINNESOTA

The College of Education Announcement
of Late Afternoon and Saturday Morning Classes
1948-1949



Volume LI, Number 38

August 25, 1948

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UNIVERSITY CALENDAR, 1948-49

1948

Fall Quarter

August 2 -September 24			Entrance Tests. ¹ Fall Registration ² : Dates for the various colleges will be announced in the press and in mailed instructions. Students who can do so are urged to register early. It is expected that all students who can do so will register before September 1
September	13	Monday	Extension registration, first semester, begins
September	16	Thursday	Fall quarter fees due for students registered through September 10
September	20-24		New student week; program of orientation. Details will be announced in instructions issued at registration. All new students are expected to attend
September	24	Friday	Last day for registration ² and payment of fees for the undergraduate colleges
September	25	Saturday	Last day for extension registration
September	27	Monday	Fall quarter classes begin 8:00 a.m. ³ First semester extension classes begin ⁴
September	30	Thursday	Opening convocation, 11:00 a.m. New students excused from IV hour classes to attend
October	1	Friday	Last day for registration and payment of fees for the Graduate School, and for teachers in service
October	12	Tuesday	Columbus Day; holiday (except extension)
October	30	Saturday	Homecoming Day
November	6	Saturday	Dads Day
November	11	Thursday	Armistice Day; holiday (except extension)
November	18	Thursday	Senate meeting, 3:00 p.m.
November	25	Thursday	Thanksgiving Day; holiday
December	10-11 and 13-16		Final examination period
December	16	Thursday	Commencement, 8:00 p.m.
December	18	Saturday	Fall quarter closes ⁵

Winter Quarter

December	23	Thursday	Winter quarter fees due for students in residence fall quarter in undergraduate colleges
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1949

January	3, 4	Monday, Tuesday	Entrance tests. ¹ Registration ² for all new students not already registered. Registration and payment of fees for new students in all undergraduate colleges closes
January	4	Tuesday	Winter quarter classes begin 8:00 a.m. ³
January	7	Friday	Last day for registration and payment of fees for the Graduate School, and for teachers in service
January	24	Monday	Extension registration, second semester begins
February	4	Friday	First semester extension classes close
February	5	Saturday	Last day for extension registration
February	7	Monday	Second semester extension classes begin ⁴

February	12	Saturday	Lincoln's Birthday; holiday
February	13-19		University of Minnesota Week
February	17	Thursday	Charter Day. Senate meeting, 3:00 p.m.
February	22	Tuesday	Washington's Birthday; holiday (except extension)
March 11-12 and 14-17			Final examination period
March	17	Thursday	Spring quarter fees due for students in residence winter quarter in undergraduate colleges. Commencement, 8:00 p.m.
March	19	Saturday	Winter quarter closes

Spring Quarter

March	25, 28	Friday, Monday	Entrance tests. ¹ Registration ² for new students not already registered Registration and payment of fees for new students in all undergraduate colleges close
March	28	Monday	Spring quarter classes begin 8:00 a.m. ³
April	1	Friday	Last day for registration and payment of fees for the Graduate School, and for teachers in service
April	15	Friday	Good Friday; holiday (except extension)
May	12	Thursday	Cap and Gown Day Convocation, 11:00 a.m. Graduating students excused from IV hour classes to attend
May	14	Saturday	Mothers Day
May	19	Thursday	Senate meeting, 3:00 p.m.
May	30	Monday	Memorial Day; holiday (except extension)
June	3	Friday	Second semester extension classes close
June	5	Sunday	Baccalaureate service, 11:00 a.m.
June 4 and 6-10			Final examination period
June	11	Saturday	Spring quarter closes. Commencement, 8:00 p.m.

Summer Session

June	13, 14	Monday, Tuesday	Registration ² for new students not already registered. First term fees due for students in all colleges
June	15	Wednesday	First term Summer Session classes begin 8:00 a.m. ³
July	4	Monday	Independence Day; holiday
July	21	Thursday	Commencement, 8:00 p.m.
July	23	Saturday	First term closes
July	25	Monday	Registration ² for new students not already registered. Second term fees due for students in all colleges
July	26	Tuesday	Second term classes begin 8:00 a.m. ³
August	25	Thursday	Commencement, 8:00 p.m.
August	27	Saturday	Second term closes

¹ Applicants are urged to take entrance tests one to two months in advance of the quarter for which admission is desired. Tests may be taken at the Student Counseling Bureau, 101 Eddy Hall.

² Registration subsequent to the date specified will necessitate the approval of the college concerned. See privilege fees for late registration or late payment of fees, page 42 in *General Information Bulletin* and in *Summer Session Bulletin*.

³ First hour classes begin at 7:45 a.m. at St. Paul Campus.

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

⁵ Extension classes resume Monday, January 3.

DIRECTORY OF ADMINISTRATIVE OFFICERS

(University of Minnesota Telephone—Main 8177)

	Room
W. E. Peik, Dean of the College of Education	204aBu
Marcia Edwards, Assistant Dean of the College of Education	202bBu
Willis Dugan, Director of Student Personnel	206aBu
Jean H. Alexander, Chairman, Students' Work Committee	206dBu
Paul R. Grim, Director of Student Teaching	206fBu
Clifford P. Archer, Director of Bureau of Recommendations	210cBu

See list of major advisers on pages 14-15.

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 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*.

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.

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. If four and one-half or more credits are taken, an incidental fee of \$11.45 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 8177, College of Education.

SPECIAL REQUIREMENTS

Psychological Examinations

The psychological examinations, which are general examinations designed to show a student's capacity to pursue professional curricula in education, are required of both classified and unclassified undergraduate students of education, and are

considered a prerequisite to graduation. Dates when they are given will be announced at the beginning of fall, winter, and spring quarters. Special arrangements can be made for teachers in service and others who are unable to attend during the week. Graduate students in education should take the examinations scheduled for this group during the first quarter in residence.

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, please make a formal request to the dean of 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 City area. See Graduate School bulletins 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 from one of the university book stores the bulletin entitled *Class Schedule for 1948-49*, price 35 cents.

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 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

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

No.	Title	Hour	Day	Bldg.	Instructor
ArtEd.151f-152w-153s	Advanced General Design: Industrial design and the consumer (3 cred.; jr., sr., grad.; prereq. permission of instructor)	I-IV	S	109J	Lien
ArtEd.156w	Intercultural Education through Art (3 cred.; jr., sr., grad.)	IX-XI	M		Lien
ArtEd.157s	Art Movements of Twentieth-Century Scandinavia (3 cred.; prereq. permission of instructor)	IX-XI	M		Lien
ArtEd.185f‡	Advanced Course in the Teaching of Art in the Secondary School (3 cred.; grad. and teachers in service; prereq. permission of instructor)	IX-X-XI	M	109J	Lien
ArtEd.296f,w,s	Seminar in Art Education (No cred.; required of degree candidates in art education; elective for others interested)	IX	Th	109J	Gayne and staff

NOTE—Nine credits of art history is required of art education majors and they are encouraged to take additional courses in that field. Art history courses are available in the History of Arts Department (formerly Fine Arts), the department of art history and criticism on the campus.

CURRICULUM AND INSTRUCTION

All courses under *Curriculum and Instruction* carry a fee of \$1.50 per credit.

Ed.C.I.63Tf‡	Children's Literature (2 cred.; for teachers in service)	IX-X	M	110UHS	D. Smith
Ed.C.I.105f,s‡	Visual Aids in Teaching (3 cred.; jr., sr., grad.)	f IX-X s III-IV	T S		Wendt Wendt
Ed.C.I.106w‡	Coordinating a Visual Education Program (3 cred.; jr., sr., grad.; prereq. 105 or permission of instructor)	III-IV	S		Wendt
Ed.C.I.107f,w‡	Radio in Education (4 cred.; jr., sr., grad.; prereq. 9 cred. in ed.)	f IX-X and 1 hr. ar w IX-X and 1 hr. ar	Th W	302MurH	Tyler
Ed.C.I.113f,w‡	High School Curriculum (3 cred.; sr., grad.; prereq. 10 hrs. in ed. including Ed. 51A-B-C or Ed. 55A-B)	f III-IV w I-II and 1 hr. ar	S S	5ShH	Bossing Bossing
Ed.C.I.117s‡	Rural Education for Administrators and Teachers (3 cred.; sr., grad.; prereq. consult instructor)	I-II	S		Archer

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

No.	Title	Hour	Day	Bldg.	Instructor
Ed.C.I.119w‡	Elementary School Curriculum (3 cred.; sr., grad.; prereq. Ed. 61C or equiv.)	III-IV and 1 hr. ar	S		Cook
Ed.C.I.122s‡	Literature for Adolescents (2 cred.; jr., sr., grad.; prereq. Ed. 51C or junior-senior teaching experience)	I-II	S		D. Smith
Ed.C.I.125f,w,s‡	Occupational Information Laboratory (1 cred.; sr., grad.; class limit of ten and permission of instructor)	Ar	Ar		Dugan
Ed.C.I.132f‡	Teaching the Basic Business Subjects (3 cred.)	IX-X	Th	221Bu	Price
Ed.C.I.133w‡	Consumer Education in the Schools (3 cred.)	III-IV	S	Ar	Price
Ed.C.I.134s‡	Materials and Methods in Consumer Education (3 cred.)	III-IV	S		Price
Ed.C.I.135s‡	Teaching of Occupations and Group Guidance (2 or 3 cred.; sr., grad.; prereq. Ed.Psy. 133 or permission of instructor)	III-IV	S		Dugan
Ed.C.I.136w‡	Organization and Supervision of Distributive Education Programs (3 cred.; prereq. consent of instructor)	IX-X and 1 hr. ar	W		Meyer
Ed.C.I.137f‡	Materials and Methods in Distributive Education Programs (3 cred.; prereq. consent of instructor)	IX-X	Th	112Bu	Meyer
Ed.C.I.139s‡	Coordination Techniques in Business Education (3 cred.; prereq. consent of instructor)	IX-X	W		Meyer
Ed.C.I.141f‡	Cooperative Part-time Distributive Education Classes (3 cred.; sr., grad.)	IX-X	W	115Psy	Meyer
Ed.C.I.143f‡	Teaching and Supervision of Reading in the Elementary School (3 cred.; jr., sr., grad.; prereq. 9 hrs. in ed. including Ed. 51A or 71A or equivalent)	4:30-6:30 and 1 hr. ar	W	100NH	Bond
Ed.C.I.144w‡	Teaching of Reading in Junior and Senior High Schools (3 cred.; sr., grad.; prereq. 9 hrs. in ed. including Ed. 55A or equivalent)	I-II and 1 hr. ar	S		Bond
Ed.C.I.145s‡	Remedial Reading (3 cred.; prereq. Ed.C.I. 143 or 144 or 159)	I-II and 1 hr. ar	S		Bond
Ed.C.I.149w‡	The Teaching and Supervision of Arithmetic in the Elementary School (2 cred.; sr., grad.; prereq. Ed. 71A-B-C or equiv.)	III-IV	S		Brueckner
Ed.C.I.153w‡	Supervision and Teaching of English in the Elementary Schools (3 cred.; sr., grad.; prereq. Ed. 71C or equiv.)	I-II and 1 hr. ar	S		Archer
Ed.C.I.157f,w,s‡	Practice in Supervision (3 cred. a qtr.; sr., grad.; prereq. consent of instructor)	Ar	Ar	Ar	Brueckner
Ed.C.I.168w‡	Current Developments in the Social Studies (2 cred.)	III-IV	S		Wesley
Ed.C.I.170Bs‡	Curriculum and Course of Study Construction at the Secondary School Level (3 cred.; sr., grad.; prereq. 113 or 119 and 170 or consent of instructor)	I-II and 1 hr. ar	S		Bossing

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

No.	Title	Hour	Day	Bldg.	Instructor
Ed.C.I.171f,w,s†	Curriculum Laboratory Practice (2 to 6 cred.; sr., grad.; prereq. 170 or consent of instructor)	Ar	Ar	Ar	Bossing, Cook, Archer
Ed.C.I.173A,Bs‡	Organizing Units of Instruction in the Elementary School (3 cred.; sr., grad.; prereq. 119 or teaching experience)	As Bs	III-IV III-IV and 1 hr. ar	S S	Cook Bossing
Ed.C.I.181w‡	Foundation of Elementary School Methods (3 cred.; sr., grad.; prereq. 9 hrs. in ed.)	IX-X and 1 hr. ar	M		Brueckner
Ed.C.I.184f‡	Supervision of Student Teaching (2 cred.; sr., grad.)	I-II	S	109Psy	Grim
Ed.C.I.191s‡	Advanced Course in the Teaching and Supervision of Secondary School Mathematics (2 cred.; prereq. Ed. 51C or permission of instructor)	I-II	S		D. Johnson
Ed.C.I.199Ef,w,s‡	Internship (Cred. ar.; grad.)	Ar	Ar	Ar	Grim
Ed.C.I.201f,w,s*‡	Problems in Teaching the Social Studies (3 cred. a qtr.; grad.; prereq. consent of instructor)	IX-X	T	221Bu	Wesley
Ed.C.I.204f‡	Social Studies Curriculum (2 cred.; prereq. grad. only)	III-IV	S	115Psy	Wesley
Ed.C.I.205f,w,s*‡	Problems in Visual Education (Cred. ar.)	Ar	Ar	Ar	Wendt
Ed.C.I.207f,w,s*‡	Problems in Radio Education (1 to 3 cred. per qtr.)	Ar	Ar	Ar	Tyler
Ed.C.I.215f,w,s*‡	Problems in the School Health Education Program (Cred. ar.; prereq. permission of instructor)	Ar	Ar	Ar	Grout
Ed.C.I.216f,w,s‡	Field Work in the School Health Education Program (Cred. ar.; prereq. permission of instructor)	Ar	Ar	Ar	Grout
Ed.C.I.217f,w,s‡	Seminar in the School Health Education Program (Cred. ar.; consult instructor)	Ar	Ar	Ar	Grout
Ed.C.I.222f,w,s‡	Seminar—Current Problems in Technique of High School Instruction (With or without credit; prereq. Ed. 51B and Ed.C.I. 113)	IX-X	W	5ShH	Bossing, P. Johnson, D. Smith, Wesley
Ed.C.I.225f,w,s*‡	Special Problems in Supervision of Instruction in Secondary Schools (Cred. ar.)	Ar	Ar	218Bu	Boardman
Ed.C.I.226f,w,s‡	Seminar in Elementary School Problems	IX-X	Th	5ShH	Bond, Brueckner, Cook, Archer
Ed.C.I.227f,w,s*‡	Problems in Rural Education (Cred. ar.)	Ar	Ar	Ar	Archer
Ed.C.I.228f,w,s*‡	Problems of Higher Education and Teacher Training (Cred. ar.)	Ar	Ar	Ar	Mr. Peik and others

* This course may be taken for independent study under Plan B for the Master's degree.
† A fee of \$1.50 per credit is charged for this course.

No.	Title	Hour	Day	Bldg.	Instructor
Ed.C.I.238f,w,s*‡	Problems in Distributive Education (3, 6, or 9 cred. a qtr.; total of 9 cred.; grad. only) Conference periods arranged				
	f	IX	Th	5ShH	Meyer
	w,s	IX	T	Ar	Meyer
Ed.C.I.239f,w,s*‡	Problems in Business Education (Cred. ar.)				
	f	IX	F	213TNUH	Price
	w	IX	F	Ar	Price
	s	IX	F	Ar	Price
Ed.C.I.250f‡	Higher Education in the United States (3 cred.; prereq. 18 hrs. in ed. or consent of instructor)				
	I-II		S	109F	Eckert
	and 1 hr. ar				
Ed.C.I.252w‡	Effective College Teaching (3 cred.; prereq. 18 hrs. in ed. or consent of instructor)				
	I-II		S		Eckert
	and 1 hr. ar				
Ed.C.I.261f,w,s*‡	Special Problems in School Supervision (3 cred.; prereq. 10 hrs. in ed. including Ed. 51A or equiv.)				
	Ar		Ar	220Bu	Brueckner
Ed.C.I.263s*‡	Research in Arithmetic Instruction (3 cred.; prereq. Ed.C.I. 148 or 149 or equiv.)				
	III-IV		S		Brueckner
Ed.C.I.264f*‡	Research in Educational Diagnosis (3 cred.; prereq. Ed.C.I. 151 or equiv.)				
	III-IV		S	107F	Brueckner
Ed.C.I.271f,w,s*‡	Problems in Curriculum Construction (2 or 3 cred. a qtr. with a maximum of 6; prereq. completion or current enrolment in one of the following: Ed.C.I. 113 or 119 and 170 or consent of instructor)				
	Ar		Ar	Ar	Bossing, Cook, Archer
Ed.C.I.273f,w,s*‡	Problems in Reading (2 to 9 cred.; prereq. previous training in reading such as Ed.C.I. 143 or 144 or equiv.)				
	Ar		Ar	Ar	Bond
Ed.C.I.284f,w,s‡	Problems in Student Teaching				
	Ar		Ar	Ar	Grim
Ed.C.I.285f‡	Professional Education of Teachers (2 cred.; prereq. 15 hrs. in ed.)				
	III-IV		S	105F	Anderson
Ed.C.I.287f‡	Advanced Course in the Teaching of Science (2 cred.; sr., grad.; prereq. Ed. 51C)				
	III-IV		S	4F	P. Johnson
Ed.C.I.293s*‡	Foundations of Secondary School Methods (3 cred.)				
	IX-X		F		P. Johnson
	and 1 hr. ar				
Ed.C.I.294f*‡	Advanced Course in Methods of Teaching English (2 cred.; prereq. Ed.T. 66A-B-C or equiv.)				
	III-IV		S	9TNM	D. Smith
Ed.C.I.296f,w,s*‡	Special Problems in Teaching English (Cred. ar.; grad.)				
	Spring—Units of Literature				
	Ar		Ar	Ar	D. Smith

EDUCATIONAL ADMINISTRATION

Ed.Ad.115w	Organization of the Elementary School (3 cred.; jr., sr., grad.; prereq. 10 hrs. in ed.)				
	I-II		S	Ar	
	and 1 hr. ar				
Ed.Ad.133f	Guidance in Secondary Schools (3 cred.; sr., grad.; prereq. 9 hrs. in ed.)				
	III-IV		S	Ar	Dugan
	and 1 hr. ar				

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

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

No.	Title	Hour	Day	Bldg.	Instructor
Ed.Ad.167f	Junior High School (3 cred.; sr., grad.; prereq. 10 hrs. in ed. including Ed. 51)	I-II and 1 hr. ar	S	107UHS	Bossing
Ed.Ad.218f,w,s	Recent Literature in Secondary Education (Cred. ar.)	IX-X	W	101NH	Boardman, Bossing
Ed.Ad.225f	Pupil Personnel Administration (3 cred.)	I-II	S	106UHS	Domian
Ed.Ad.228f,w,s*	Special Problems in Educational Administration (1 or 3 cred.; prereq. 124, 125)	Ar	Ar	224Bu	Neale
Ed.Ad.230f	Public Relations for Schools (3 cred.)	III-IV	S	109Psy	Domian
Ed.Ad.235f,w,s	Seminar in Educational Administration	Ar	Ar	224Bu	Neale
Ed.Ad.250w	School Surveys (Cred. ar.)	I-II	S	Ar	Neale
Ed.Ad.270f,w,s*	Special Problems in Secondary Education (Cred. ar.; maximum 9 cred.)	Ar	Ar	Ar	Boardman, Bossing

EDUCATIONAL PSYCHOLOGY

Ed.Psy.113f-114w-115s	Psychology of Elementary School Subjects (2 cred. per qtr.; jr., sr., grad.; prereq. 10 cred. in psy. and ed.)	IX-X	W	109Psy	Van Wagenen
Ed.Psy.133f	Guidance in Secondary Schools (3 cred.; sr., grad.; prereq. 9 hrs. in ed.)	III-IV	S	112Bu	Dugan
Ed.Psy.142w	Individual Aptitude Testing (3 cred.; sr., grad.; prereq. 120 or equiv.)	IX-X	T		Delp
Ed.Psy.143s	Individual Mental Testing Laboratory (2 cred.; prereq. Ed.Psy. 142)	IX-X	T	Ar	Delp
Ed.Psy.150f,w,s	Psycho-educational Clinic (3 to 6 cred.; sr., grad.; prereq. Ed.Psy. 120, 140, 141 or 142 and consent of instructor)	Ar	Ar	Ar	Bond, Delp
Ed.Psy.182f	Education of Handicapped Children (2 cred.)	I-II	S	200Pt	Delp
Ed.Psy.183f	Education of Gifted Children (3 cred.; jr., sr., grad.; prereq. Ed. 55A or equiv.)	III-IV	S	200Pt	Bond
Ed.Psy.184s	Education of the Slow-Learning Child (2 cred.)	I-II	S	Ar	Delp
Ed.Psy.216af,217aw,218as	Statistical Methods in Education Laboratory (2 cred. per quarter; grad.)	Ar	Ar	Ar	Ar
Ed.Psy.219f	Design and Analysis of Statistical Investigations (3 cred.; prereq. Ed.Psy. 218 or consent of instructor; grad.)	Ar	Ar	Ar	Ar
Ed.Psy.220w-221s	Advanced Theory of Measurement (2 cred. a qtr.; prereq. Ed.Psy. 60 or 120 and 216 or equiv.)	IX-X	T	Ar	Van Wagenen
Ed.Psy.233f,w,s	Problems in Guidance and Personnel Work (Cred. ar.; prereq. consent of instructor) (Two-hour weekly seminar) Fall, College Student Activities. Winter, College Placement. Spring, Personnel Procedures in Nonacademic Agencies)	Ar	Ar	Ar	Edwards, Wrenn, Dugan

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

No.	Title	Hour	Day	Bldg.	Instructor
Ed.Psy.240f,w,s*	Problems in Measurement (2 cred. a qtr.)	Ar	Ar	Ar	P. Johnson
Ed.Psy.243f,w,s	Problems in Statistics for Students in Education and Psychology (With or without credit. Cred. ar.)	Ar	Ar	Ar	P. Johnson
Ed.Psy.253f,w,s*	Research Problems (Ar.; prereq. consult instructor) (See also Ed.Psy. 233 and Ed.Psy. 240)	Ar	Ar	Ar	Bond, Miller, Cook. Anderson, Van Wagenen
Ed.Psy.254s	Measurement and Evaluation in Higher Education (3 cred.; 15 hrs. in ed.) III-IV and 1 hr. ar		S	Ar	P. Johnson
Ed.Psy.260	Educational Psychology Seminar (No cred.; required of all Ph.D. majors in educational psychology)	Ar	Ar		Staff
Ed.Psy.281f,w,s	Practice in Personnel Work (2-3 cred. Maximum 9 cred.; prereq. Ed.Psy. 225, 226 or to be taken concurrently, and consent of instructor)	Ar	Ar	Ar	Edwards, Wrenn, Dugan, Hagenah
Ed.Psy.282s	Practice in High School Personnel Work (3 cred.)	Ar	Ar		Dugan

HISTORY AND PHILOSOPHY OF EDUCATION

H.Ed.110w,s	Intercultural Education (3 cred.; jr., sr., grad.; prereq. 9 cred. in ed. or consent of instructor)	w s	I-II IX-X	S T	Cary Cary
H.Ed.131w	Comparative Education (3 cred.)		IX-X	W	Beck
H.Ed.141f	Critical Issues in Contemporary Education (3 cred. Not open to students who have completed H.Ed. 176) (Replaces H.Ed. 140 and 176)		IX-X	W 111Bu	Cary, Beck
H.Ed.178w	Education and Problems of American Democracy (3 cred. jr., sr., grad.; prereq. 6 cred. in soc. sci.)		IX-X	T	Cary
H.Ed.182s	Comparative Philosophies of Education (3 cred.; sr., grad.; prereq. H.Ed. 76 or H.Ed. 141.)		IX-X	W	Beck
H.Ed.241f,w,s	Problems in the History and Philosophy of Education (Cred. ar.; prereq. permission of instructor)	Ar		Ar 226Bu 215Bu 206Bu	Wesley Cary, Beck Alexander
H.Ed.242s	Seminar in Educational Philosophy (3 cred.; grad.; prereq. consent of instructor)		IX-X	M	Cary, Beck

HOME ECONOMICS EDUCATION

H.E.Ed.193As	Home Economics Curriculum (2 or 3 cred.: sr., grad.; prereq. permission of instructor) Secondary school level		IX-X	W	Army, Rose
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* This course may be taken for independent study under Plan B for the Master's degree.

No.	Title	Hour	Day	Bldg.	Instructor
H.E.Ed.194Bs	Adult Education in Home Economics (3 cred. a qtr.; jr., sr., grad.; prereq. H.E.Ed. 91, 93 or parallel)	IX	MF		Ford
H.E.Ed.197f,w,s†	Organization and Methods for Related Art Teaching (1 to 3 cred.; sr.; prereq. H.E.Ed. 91; H.E. 180 or parallel)	Ar	Ar		H. Goldstein
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. permission of instructor)	III-IV	S	114HE	Rose
H.E.Ed.293f,w,s*	Problems in Home Economics Education (1 to 9 cred.; prereq. H.E.Ed. 294 recommended, permission of instructor)	Ar	Ar	Ar	H. Goldstein
H.E.Ed.295f,w,s*	Seminar in Home Economics Education (1-3 cred.)	IX	Th	114HE	Army, Rose, H. Goldstein

INDUSTRIAL EDUCATION

Ind.11f,w,s,†¶	Special-Class Woodwork (2 cred.; no prereq.) (Limited to 24)	I-IV	S	6Pt	La Berge
Ind.40f	Analysis (2 cred.; no prereq.)	IX-X	F	202TNUH	Micheels
Ind.42w	Course Organization (2 cred.; prereq. Ind. 40)	IX-X	F	Ar	Micheels
	and 1 hr. ar				
Ind.44s	Equipment and Management (2 cred.; prereq. 40, 42)	IX-X	M	Ar	Widdowson
Ind.60f	Philosophy of Vocational Education (2 cred.; no prereq.)	IX-X	M		Widdowson
	and 1 hr. ar				
Ind.61w	Practices in Vocational Education (2 cred.; prereq. Ind. 60)	IX-X	M	Ar	Widdowson
Ind.70f†	Methods in Shop Subjects (3 cred.; prereq. Ind. 40, 42)	III-IV	S	213TNUH	Micheels
	and 1 hr. ar				
Ind.80f	General Industrial Training (2 cred.; no prereq.) (Not a shop course)	IX-X	W	202TNUH	Micheels
Ind.102s¶	The General Shop (2 cred.; jr., sr.; prereq. Ind. 80) (Not a shop course)	IX-X	W	Ar	Micheels
Ind.107f¶	Coordination (2 cred.; jr., sr., grad.; prereq. Ind. 60, 61, or 105, or consent of instructor)	I-II	S	213TNUH	Widdowson
Ind.109w¶	Conference Leading for Industry (2 cred.; prereq. consent of instructor)	IX-X	T	Ar	Widdowson
Ind.110w	Guidance in the Schools (3 cred.; jr., sr., grad.; prereq. Ed. 55A. (See Ed.Psy. 133)	IX	MWF		H. Smith
Ind.125s	Philosophy and Practice of Industrial Education (3 cred.; jr., sr., grad.; others with consent of instructor)	III-IV	S		Widdowson
	and 1 hr. ar				
Ind.172s¶	Part-time Education (3 cred.; prereq. Ind. 170, 171; others with consent of instructor)	I-II	S		H. Smith
	and 1 hr. ar				

Off-Campus Courses and Services—Mr. Widdowson.

Dunwoody Shop and Drawing Course—arranged. (Special blank must be used.)

* Students must sign up in the Office of Admissions and Records at St. Paul Campus at least two quarters prior to registration in this course.

† A fee of \$1.50 per credit is charged for this course.

¶ Not a part of the four-year curriculum.

MUSIC EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
MuEd.224Ef,w,s	Seminar and Individual Research Problems in Music Education. (2 to 6 cred.)	Ar	Ar	Ar	Winslow and others
Mu.Ed.225Ef,w,s††	Advanced Applied Music (2 to 4 cred.; prereq. entrance exam.)	Ar	Ar	Ar	Ar

PHYSICAL EDUCATION FOR MEN

Phys.Ed.64Aw-Bs	Leadership in Nature Recreation (2 cred. per qtr.; jr.; prereq. 15 cred. in nat. sci.)	IX-X	F		Thompson
Phys.Ed.199Ef,w,s†§	Internship in Recreational Leadership (Cred. ar.)	Ar	Ar	Ar	Ar
Phys.Ed.261Ef,w,s	Seminar in Contemporary Problems in Recreation and Physical Education (Cred. ar.)	Ar	Ar	Ar	Nordly, Haislet

† 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.

§ 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.

MAJOR ADVISERS

1948-49

Subject	Name of Instructor	Room
General Advisers	Jean H. Alexander, Chairman	
	Students' Work Committee.....	206dBu
New Extension Courses	Willis E. Dugan, Director Student Personnel	206aBu
	J. M. Nolte	152NH
 EDUCATIONAL FIELDS		
Adult Education		
Agricultural Education	Milo J. Peterson	205Hort(UF)
Art Education	Clifton Gayne	106J
	Marie Lien	106J
Business Education (Distributive and Office)	Ray G. Price	109TWP
	Warren G. Meyer	107TWP
Curriculum and Instruction	C. W. Boardman (Secondary)	218Bu
	N. L. Bossing (Secondary).....	222Bu
	L. J. Brueckner (Elementary)	220Bu
	W. W. Cook (Elementary)	207Bu
	Ruth E. Eckert (Higher)	203Bu
	W. E. Peik (Teacher Training)	204aBu
	Dora V. Smith (English)	201Bu
Educational Administration	C. W. Boardman (Secondary)	218Bu
	N. L. Bossing (Secondary).....	222Bu
	M. G. Neale (General)	224Bu
Educational Psychology	G. Lester Anderson	205Bu
	W. W. Cook	207Bu
	Willis E. Dugan	206aBu
	Guy L. Bond	212Bu
	P. O. Johnson	216Bu
	Marcia Edwards	202bBu
	M. J. Van Wagenen	351Psy
	C. Gilbert Wrenn	113aPsy
	Ruth Grout	121MH
	Helen Starr	108NGW
Elementary Education	Jean H. Alexander	206dBu
	C. P. Archer	210cBu
	Guy L. Bond	212Bu
	L. J. Brueckner	220Bu
	W. W. Cook	207Bu
History and Philosophy of Education	Jean H. Alexander (History)	206dBu
	Robert Beck (Philosophy)	215Bu
	Miles E. Cary (Philosophy)	215Bu
	Edgar B. Wesley (Educational Sociology)	226Bu
	Clara Brown Army	101HE(UF)
Home Economics Education	Wylle B. McNeal	215HE(UF)
	Ella J. Rose	111HE(UF)
	William J. Micheels	105TWP
Industrial Education	Homer J. Smith	101TWP
	Irene Hayner	6Lib
Library Training	Errett W. McDiarmid	107Lib
	Paul R. Grim	206fBu
Methods and Directed Teaching	Paul M. Oberg	106ScH
Music Education	Robert W. Winslow	214ScH
	Paul Ivory	214ScH

Subject	Name of Instructor	Room
Nursery School and Kindergarten Education	John Anderson	101Pt
	Mary Meechem Fuller	1CW1
Nursing Education	Katharine J. Densford	125MeS
Physical Education for Men	Louis F. Keller	110CH
	Carl L. Nordly	217CH
	Ralph Piper	220bCH
Physical Education for Women	Gertrude Baker	101NGW
Public Health Nursing	Margaret S. Taylor	121MH
Radio Education	T. F. Tyler	111NMA
Recreational Leadership	G. B. Fitzgerald	219CH
Visual Education	Paul Wendt	3WeH

SUBJECT-MATTER FIELDS

Botany	William S. Cooper	212Bo
Chemistry	P. O. Johnson	216Bu
Economics	E. A. Heilman	313VH
English	Harold B. Allen	317F
	Dora V. Smith	201Bu
Geography		101bBu
German	O. C. Burkhard	210aF
History	A. C. Krey	102Bu
	Edgar B. Wesley	226Bu
Journalism	Fred L. Kildow	106MurH
Latin	J. L. Heller	112F
Mathematics	William L. Hart	100F
Natural Science	P. O. Johnson	216Bu
Physics	J. W. Buchta	148Ph
Political Science	E. M. Kirkpatrick	NH
Public Health	Ruth Boynton	HS
Romance Languages	F. B. Barton	200bF
	H. E. Clefton	200aF
	Walter T. Pattison	319F
Scandinavian	Alrik Gustafson	13F
Social Studies	Edgar B. Wesley	226Bu
Sociology	C. Kirkpatrick	12J
Speech	Howard Gilkinson	309bF
	F. M. Whiting	10ScH
Speech Pathology	B. Bryngelson	411F
Zoology	J. E. Wodsedalek	308Z

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.151 Ed.C.I.184 Ed.C.I.250 Ed.Ad.167 Ed.Ad.225 Ed.Psy.182 Ind.11 Ind.107	ArtEd.151 Ed.C.I.204 Ed.C.I.264 Ed.C.I.285 Ed.C.I.287 Ed.C.I.294 Ed.Ad.133 Ed.Ad.230 Ed.Psy.133 Ed.Psy.183 H.E.Ed.243 Ind.11 Ind.70	ArtEd.185* Ed.C.I.63T Ind.60	Ed.C.I.105 Ed.C.I.201	Ed.C.I.141 Ed.C.I.143§ Ed.C.I.222 Ed.Ad.218 Ed.Psy.113 H.Ed.141 Ind.80	ArtEd.296† Ed.C.I.107 Ed.C.I.132 Ed.C.I.137 Ed.C.I.226 Ed.C.I.238† H.E.Ed.295†	Ed.C.I.239† Ind.40
WINTER						
ArtEd.152 Ed.C.I.113 Ed.C.I.144 Ed.C.I.153 Ed.C.I.252 Ed.Ad.115 Ed.Ad.250 H.Ed.110 Ind.11	ArtEd.152 Ed.C.I.106 Ed.C.I.119 Ed.C.I.133 Ed.C.I.149 Ed.C.I.168 H.E.Ed.243 Ind.11	ArtEd.156* Ed.C.I.181 Ind.61 Ind.110†	Ed.C.I.201 Ed.C.I.238† Ed.Psy.142 Ed.Psy.220 H.Ed.178 Ind.109	Ed.C.I.107 Ed.C.I.136 Ed.C.I.222 Ed.Ad.218 Ed.Psy.114 H.Ed.131 Ind.110†	ArtEd.296† Ed.C.I.226 H.E.Ed.295†	Ed.C.I.239† Ind.42 Ind.110† Phys.Ed.64A
SPRING						
ArtEd.153 Ed.C.I.117 Ed.C.I.122 Ed.C.I.145 Ed.C.I.170B Ed.C.I.191 Ed.Psy.184 Ind.11 Ind.172	ArtEd.153 Ed.C.I.105 Ed.C.I.134 Ed.C.I.135 Ed.C.I.173A Ed.C.I.173B Ed.C.I.263 Ed.Psy.254 H.E.Ed.243 Ind.11 Ind.125	ArtEd.157* H.Ed.242 H.E.Ed.194B† Ind.44	Ed.C.I.201 Ed.C.I.238† Ed.Psy.143 Ed.Psy.221 H.Ed.110	Ed.C.I.139 Ed.C.I.222 Ed.Ad.218 Ed.Psy.115 H.Ed.182 H.E.Ed.193A Ind.102	ArtEd.296† Ed.C.I.226 H.E.Ed.295†	Ed.C.I.239† Ed.C.I.293 H.E.Ed.194B† Phys.Ed.64B

* IX-XI hours.

† IX hour only.

§ 4:30-6:30.