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1944-1946



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 Velma Denny, M.A., Demonstration Teacher—Grade 2
 Eva Dratz, B.S., Demonstration Teacher—Grade 6
 Priscilla Hawn, B.S., Kindergarten Teacher
 Tillie Idler, B.S., Demonstration Teacher—Grade 1
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 Florence Pederson, B.S., Demonstration Teacher—Grade 2
 Adele K. Solheim, B.S., Demonstration Teacher—Grade 5
 Norma Verbeck, M.A., Demonstration Teacher—Grade 4

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 *James E. Curtis, M.A., Instructor and Assistant Director of the University High School
 Edgar B. Wesley, Ph.D., Professor of Education and Head of the Department of Social Studies, University High School
 Bertha Handlan, M.A., Assistant Professor of Education and Head of the Department of English, University High School
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Marie Bestul, B.S., Nurse
Jean G. Smith, B.A., B.S., Librarian

MEMBERS OF OTHER FACULTIES GIVING INSTRUCTION IN
THE COLLEGE OF EDUCATION

For a complete list of members of other faculties giving instruction in the College of Education, see the following bulletins:

College of Science, Literature, and the Arts
College of Agriculture, Forestry, and Home Economics
Medical School
Institute of Technology
School of Business Administration
Division of Library Instruction
Institute of Child Welfare
General College

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 education, natural science, and physical education.

Work is also offered in the fields of library service, recreational leadership, school health work, teaching of subnormal 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.

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, 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 which he or she intends to teach; and (3) professional orientation and training. These cannot be arbitrarily separated, 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

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

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 degree. Attainment of each of these goals will normally be sought through a variety of courses and 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 commercial 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, 208 Burton Hall. Students who have majors in broad fields are more easily placed than those with one-subject majors and minors in unrelated subjects. Experience in student activities on the campus is a decided asset in securing a position and such participation is highly recommended to prospective teachers. 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.

ADMISSION

Admission as regular students—Admission to regular standing in the College of Education may be effected in one of the following ways:

a. Completion of the requirements for admission to the College of Education in the junior year as outlined below, or to the junior year of the College of Agriculture, Forestry, and Home Economics. This preparation involves the earning of 93 credits and 93 honor points for men and 95 credits and 95 honor points for women and represents two years of work in a junior college. Students enter the College of Education as juniors and can usually complete the work for the B.S. degree in two years. Students who have completed a minimum of 85 credits and 85 honor points may register in the College of Education and complete the work after entrance.

b. Graduation from the regular two-year course of the Minnesota state teachers colleges or of other fully accredited teachers colleges. The College of Education grants 90 credits to such graduates.

c. Registration in one of the following four- or five-year specialized curricula in the freshman year, provided the requirements for admission to the University have been completed:

Art Education	Music Education
Elementary Education	Physical Education for Men
Industrial Education	Physical Education for Women
Kindergarten and Primary Education	Recreational Leadership

In all other cases of four- or five-year curricula as outlined in this bulletin, the prescribed work of the first two years is to be taken prior to the student's entrance to the College of Education.

ENTRANCE REQUIREMENTS

All students who desire to prepare for teaching and who have not enrolled as freshmen in one of the four- or five-year curricula must register in the College of Education beginning with the junior year. They should enroll as pre-education students in the Junior College and consult an adviser in the College of Education as early in their course as possible.

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. At the time of entrance to the College of Education the student will be given a general examination designed to show his capacity to pursue professional curricula in education.
3. Any student entering the College of Education after the first quarter of the freshman year must have a scholarship average of C or one honor point per credit on all work taken prior to entrance.
4. All students entering the College of Education must have the required physical education work.

STUDENTS IN SPECIALIZED CURRICULA

Students who are following one of the specialized curricula (pages 33-38) 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 93 credits for men and 95 credits for women 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, altho 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, entrance to the College of Education will be conditioned upon meeting the general and specific requirements outlined on page 11.

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 will be 183 for men and 185 for women. 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 14.

3. A minimum of 93 credits for men and 95 credits for women 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. The remaining 90 credits shall be earned in the following groups of college courses:

- Group A English
- Group B Foreign languages: Classics, German, Romance Languages, Scandinavian
- Group C Social sciences: Anthropology, Economics, Geography, History, Political Science, Sociology
- Group D Natural sciences: Astronomy, Botany, Chemistry, Geology and Mineralogy, Physiology, Physics, Psychology, Zoology
- Group E Mathematics
- Group F Journalism, Philosophy, Speech, Fine Arts, or such courses in other colleges or departments of the University as are approved by the College of Education

4. Within the general requirements listed above, the student during his high school and Junior College years must have completed the required work indicated under A, B, C, and D below, and at least 20 credits in Groups B, C, and D must be completed in college.

SUBJECT	IN HIGH SCHOOL	IN COLLEGE
A. English	3 years	and 9 credits in composition
B. Language	No language	20 credits in one language
	3 years in one language	5 credits in the same language
	or 2 years in one language	and 9 or 10 credits in same language
C. Social sciences	or 1 year in one language	and 15 credits in same language
	2 years	or 9 or 10 credits in one department
D. Natural sciences	2 years	or 9 or 10 credits in one department

NOTE—In lieu of the specific course requirements indicated in the language group a student may elect a comprehensive examination in a chosen language to be conducted by a committee appointed by the dean of the College of Education.

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 are lacking certain entrance requirements, such as science, language, or psychology, may be admitted to the College of Education and will make up all deficiencies after enrolment in the College of Education. Such students should consult the chairman of the Students' Work Committee.

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 R.O.T.C. courses. (See pages 20-21.)

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 11). 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.

New Students' Committee—The faculty of the College of Education maintains a New Students' Committee, the duties of which are to assist students transferring from other colleges with advanced standing. Students in the special fields may secure help from the heads of their own departments in Physical Education, Art Education, Music Education, and Child Welfare. All academic majors in such fields as social studies, English, languages, or science, should communicate with Miss Dora V. Smith, chairman of the committee, or with Miss Jean H. Alexander, chairman of the Students' Work Committee, both at 206 Burton Hall. Instructions for Freshman Week and information concerning registration procedures and the location of major advisers will be mailed to advanced standing students on request. A transfer students' booth for the purpose of giving information during Freshman Week is maintained by upper classmen in the upstairs rotunda of Burton Hall.

Admission on probation—Students with advanced standing who wish to enter the College of Education are 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.

Students with a B.A. degree—Students already holding a B.A. or B.S. degree may in some cases register for the course Professional Training of Teachers. (See page 13.)

Prerequisites for senior work—Students who transfer with three years of college work approximating 135 credits, must have had courses equivalent to Ed. 51A-B-C, Introduction to Secondary School Teaching, and courses in their major prerequisite to practice teaching in order to complete the work for a degree in one school year. For prerequisites for practice teaching see page 14.

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 62-69.

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 may 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 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 shall 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 may receive credit for any part of their work in so far 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, Comp. 4-5-6 or Eng. A-B-C or Psy. 1-2, General Psychology. Graduates of state teachers colleges should not take Ed. 51A or Ed. 61A-B-C without special permission.

STUDENTS WITH A BACHELOR'S DEGREE

Provision is made for a selected group of students who already have earned a Bachelor's degree in some other college and desire to complete their preparation for teaching and qualify for a teacher's certificate to do so in the shortest possible time by registering in the course Ed.W, Professional Preparation for Teaching. To be admitted to Ed.W, students must have a 1.7 average and the consent of the adviser for the course. Such students plan their complete program in conference with the adviser and must earn a minimum of 45 credits. All requirements of the curriculum chosen must be completed and all units of the course, totaling 45 credits, must be completed. Students who complete the course receive the bachelor of science degree and are entitled to certification by the Minnesota State Department of Education.

RESIDENCE REQUIREMENTS

Courses of study in the College of Education are outlined for two years and for four years. The minimum term of residence is two years beginning as soon as the entrance requirements have been fulfilled.

Students may shorten the two years or four years of residence only 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 the junior 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.

A minimum of 45 credits in residence is required for graduation. 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 must, as a rule, enter in the fall and must be able to pass the required examinations and must have completed all requirements for practice teaching, in order to graduate in three quarters. In order to receive a certificate for teaching a student must be a graduate of the College of Education.

Acceleration—During the war, plans have been put in operation whereby students may complete their work in less time than the regular two or four calendar years. This is usually done by earlier entrance, extra Summer Session work, and by carrying extra courses. Such programs are made for the individual student, and those interested in accelerating their work should consult the assistant dean, the chairman of the Students' Work Committee, or their major adviser.

HEALTH EDUCATION

All students in the College of Education 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 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.
- b. P.H. 4, Health Problems of Adult Life, 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.

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

Because of the emergency during the war some of these requirements may be waived on the recommendation of the director of student teaching and the Students' Work Committee. Registration for directed teaching in the senior year of the College of Education 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; (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 requirements 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.

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 cancelled 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 ratio of honor points earned divided by the credits earned plus credits of removed and unremoved failures.

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 through 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 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) 183 credits† if a man or 185 credits† if a woman, including the required courses in physical education, or a smaller number of credits determined as follows: For every 5 honor points in excess of one honor point per credit the number 183 or 185 is diminished by one, 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) $1\frac{1}{2}$ 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 credits are regarded as the usual load. Students who register for more than 17 hours should have a record of $1\frac{1}{2}$ 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 one 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 $1\frac{1}{2}$ honor points per credit in his major subject to be admitted to practice teaching in his senior year.

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.

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 one honor point for each credit for which he is registered and $1\frac{1}{2}$ honor points for each credit earned in his major subject.

* For requirements in Education see pages 24-25.

† In some of the specialized curricula the number of credits required is more than 183 or 185.

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 one 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 four-year curricula of the College of Education will receive the degree of bachelor of science. A total of 183 credits and 183 honor points for men and 185 credits and 185 honor points for women 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 16. Candidates may major in any department listed on page 23.

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, 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, 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 225 credits (exclusive of the general required freshman and sophomore physical education courses) is required for this degree, together with the completion of all requirements of the curriculum. See below.

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, Home Economics Education, Industrial Education, Music Education, Physical Education for Men, and Physical Education for Women. Five-year curricula in other fields are under development. Students register in the curricula named above at the beginning of the freshman

* 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 F (fail). See page 15.

year. In most cases 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.

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) 35 quarter credits in education including one quarter of internship under a master teacher. The total number of quarter credits is from 225 to 230, 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.

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.

Graduate courses may be pursued during the Summer Session. The work for the Master's degree may ordinarily be completed in three or four 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.61A-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 a 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.

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 86 to 117) under the following groupings:

Doctor's Degree

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

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

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 Administration
Educational Psychology

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

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	Educational Psychology
Curriculum and Instruction	History and Philosophy of Education
Education	Home Economics Education
Educational Administration	Industrial Education

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 attain 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	Educational Psychology
Curriculum and Instruction	History and Philosophy of Education
Education (in special cases)	Home Economics Education
Educational Administration	Industrial Education

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 is 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 in starred courses.

MILITARY SCIENCE AND TACTICS*

Credit for advanced courses in military science—A graduate of a Basic Course, R.O.T.C., who expects to remain in the University at least two more years, may be selected by the professor of military science and tactics to pursue an Advanced Course, provided he signs a contract with the University and the government by which he agrees to complete the Advanced Course, R.O.T.C., in this or any other institution where such course is given, to devote five hours per week to the military training prescribed, and to attend one summer training camp.

In any course of study (given entirely within this college) leading to the degree of bachelor of science, the total number of credits required for graduation will be reduced by eighteen for any student who completes the work of a two-year Advanced Course, R.O.T.C.

A student enrolled in an Advanced Course, R.O.T.C., is provided with a regulation officer's uniform and receives from the government a fixed monetary allowance while enrolled in this course, except during the period of summer training camp, when he is paid at the rate prescribed for the seventh grade in the Army.

All students who complete the Advanced Courses, R.O.T.C., if recommended by the professor of military science and tactics and the president of the University, will be commissioned in the Officers' Reserve Corps, Army of the United States.

NAVAL SCIENCE AND TACTICS*

The Naval Officers' Training Corps of the University of Minnesota provides a four-year course to selected, physically qualified male students. A student who completes this course is eligible for a commission as ensign, United States Naval Reserve, or as second lieutenant, United States Marine Corps Reserve, provided he applies for the commission, obtains a degree from the University, is recommended by the professor of naval science and tactics, and passes the prescribed physical examination. If the graduate is commissioned as ensign, U.S.N.R., he may, upon graduation, apply for one year of active duty at sea, upon completion of which he may be permitted to take an examination for a commission as an ensign in the regular line of the Navy, provided he is recommended by his commanding officer and is less than 26 years of age on June 30 of that year.

Cruises on board battleships, cruisers, and destroyers are held in the Atlantic and Pacific during the summer months of each year. As a prerequisite to a commission, a cruise is required of all students upon completion of the third year of the course, but all Naval R.O.T.C. students are eligible for a cruise each summer.

The course is divided into two groups, Navigation and Naval Science, the latter being further divided into two parts: (1) the Basic Course consisting of the work of the

* This statement applies to the period before the war.

first two years and requiring one hour of drill and two hours of classroom work per week; and (2) the Advanced Course consisting of the work of the last two years and requiring one hour of drill and three hours of classroom work per week, except that only two hours of classroom work is required of students registered as engineering majors.

The Navigation Course requires three hours of classroom work per week. It is covered in three quarters at the convenience of the student but should be completed during the Basic Course.

Credits for the summer cruises are given in the amount of $\frac{3}{4}$ credit for each two weeks of cruise work. These credits are in excess of degree requirements and do not reduce the number of credits required for a degree in the student's major.

Naval Science and Navigation credits are accepted as fulfilling the requirements for a degree. For the Basic Course $1\frac{1}{2}$ credits per quarter are allowed, a total of $4\frac{1}{2}$ credits for each of the two years. For the Advanced Course 3 credits per quarter are allowed, except that students with an engineering major who take only two hours of classroom work per week are allowed only 2 credits, a total of 9 credits for each of the two years (6 credits for an engineering major).

For Navigation Course, 3 credits per quarter are allowed, a total of 9 credits for the course.

Uniforms and equipment are furnished to students by the government without charge. All textbooks used are loaned to the student. All Naval R.O.T.C. students attending cruises are furnished transportation and subsistence. Students enrolled in the Advanced Course are paid monthly commutation of subsistence by the Navy Department, and cruise pay on the Advanced Course cruise. The total pay received from the government amounts to about one hundred ninety dollars (\$190) for the two years in the Advanced Course.

All prospective candidates for the Naval R.O.T.C. *must* apply in person to the professor of naval science and tactics, University of Minnesota, before registering for the course, as enrolments are limited by law and a prescribed physical examination must be taken before the candidate can be considered.

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 practice teaching in the University High School. G. Lester Anderson, principal of the school, is the director of student teaching.

The demonstration school affiliated with the College of Education for work in elementary education is Tuttle School, Minneapolis, W. W. Staudenmaier, principal.

BUREAUS OF RECOMMENDATIONS AND RESEARCH

Bureau of Recommendations—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. Senior students on the Minneapolis campus should register with the Bureau of Recommendations, 208 Burton Hall. The fee is \$4.50 and entitles the student to one year of placement service. 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.

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 per credit hour. All courses listed under Curriculum and Instruction and Methods and Directed Teaching carry a fee of \$1 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 Combined Class Schedule. For a statement of tuition and other fees see the 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.

CONFERENCES FOR STUDENT TEACHERS

Conferences for student teachers are 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 Education
Art Education	Nursing Education
Botany	Physical Education for Men
Chemistry	Physical Education for Women
Commercial Education	Physics
Elementary Education	Political Science
Elementary School Supervision	Public Health
English	Public Health Nursing
French	Recreational Leadership
Geography	Scandinavian
German	School Health
History	Social Studies
Home Economics	Sociology
Industrial Education	Spanish
Junior High School Education	Speech
Latin	Speech Pathology
Library Methods	Teaching Subnormal Children
Mathematics	Visiting Teachers
Music Education	Zoology
Natural Science	

Students who desire certification upon graduation from the University of Minnesota shall be registrants in the College of Education beginning with the junior year. 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.

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 academic minors.

Majors and minors must be selected from the subjects commonly taught in high schools. Students should elect 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. See also pages 26-32.

C. Professional courses totaling not less than 26 credits.

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

1. Required course—General—Ed.51A-B-C. Introduction to Secondary School Teaching. (9 cred.; prereq., Psy. 1-2.)

This course consists of work in educational psychology, the technique of high school instruction, and the high school; and is usually taken in the order 51C-A-B.

2. Methods and practice teaching—In addition, the student must complete a *Special Methods and Directed Teaching Course* (9 cred.; prereq., Ed.51A-B-C) in his major field and a course in Special Methods in his minor field (3 or 4 cred.; prereq., Ed.51A-B-C).†

3. Education electives—To complete the professional requirement of at least 26 quarter credits required for this 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, Guidance in the Schools. 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 86-117.

DIRECTED TEACHING†

Because of the emergency during the war some of the requirements for directed teaching may be waived and the time may be shortened on the recommendation of the director of student teaching and the Students' Work Committee.

Special methods and student teaching are normally combined into a one-year course extending throughout the senior year. Failure to register for such course for the fall

* 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, page 14.

quarter of the senior year will probably result in delay in graduation. All courses prerequisite to special methods and practice teaching should have been completed by the beginning of the senior 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 beginning of his senior 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 at the close of the junior year and before the student registers for other courses. In the academic subjects arrangements should be made through Mr. G. Lester Anderson, director of student teaching, and in the special subjects through the major advisers.

MAJORS AND MINORS IN ACADEMIC SUBJECTS

BOTANY

Major adviser—Professor F. K. Butters.

For curriculum in natural science, see pages 61-62.

Botany as a major subject:

Course No.	Title	Credits
Bot. 1-2-3	General Botany	9
or		
Bot. 4-5	General Botany	10
Bot. 10	Minnesota Plant Life	3
Bot. 12	Plants Useful to Man	3
Bot. 50	General Plant Ecology	3
Bot. 51	General Plant Physiology	3
Bot. 52	Elementary Taxonomy	3
Bot. 53	Morphology of Thallophytes and Bryophytes	3
Bot. 54	Morphology of Pteridophytes and Spermatophytes	3
Total credits		30 or 31

Botany as a minor subject:

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

CHEMISTRY

Major adviser—Professor Palmer O. Johnson.

For curriculum in natural science, see pages 61-62.

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. 54-55, 57-58	Elementary Organic Chemistry	10
Additional credits		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, 8 instead of 9-10.

ENGLISH

Major advisers—Professors Tremaine McDowell, Dora V. Smith.

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
Comp. 27-28	Advanced Writing	6
Speech 1-2	Fundamentals of Speech	6
Additional credits, all of which must be secured in courses numbered 100 or above		6
Total credits		40

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

Major adviser—Professor D. H. Davis.

For curriculum in social studies, see pages 81-82.

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. 110	Geography of South America	3
Geog. 111	Cartography and Graphic Representation	3
Geog. 120	Geography of Asia	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 (Dynamic and Historical)	6
Geol. 1-3	General Geology (Dynamic and Economic)	6
Geol. 8	Introductory Geology	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, 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	3
Ger. 56-57	Essay Writing	6
Ger. 58	German Pronunciation	2
Ger. 68	Introductory Survey of German Literature	3
Additional credits in courses numbered 50 or above		15
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 81-82.

History as a major subject:

Total number of credits	45
At least 18 credits must be in Senior College courses. In the senior year students, if they have maintained to the end of the junior year an honor point average of 1.5 in all work and an average of 2.0 in courses in history taken after the freshman year, may take at least one course numbered above 150; all other majors will take an additional survey course in the senior year, but will not take a course numbered above 150.	

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. 13	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—Assistant Professor J. L. Heller.

Latin as a major subject:

Eighteen credits including:

Course No.	Title	Credits
Lat. 73-74-75	Prose Composition	3
Lat. 111-112-113	Advanced Prose Composition	3

Additional courses in Latin including two with numbers between 50 and 100 and two with numbers above 100.

Latin as a minor subject:

Nine credits including Lat. 73-74-75 and any two courses with numbers above 50.

Sequence of courses in Latin—Students who have had no Latin in high school will take Courses 1, 2, 3, 11, 12, and any course numbered between 50 and 100. Students entering the University with one year of high school Latin will take Courses 3, 11, 12, and any course numbered between 50 and 100. Students entering with two years of Latin will take 11, 12, and any course numbered between 50 and 100. Students entering with three years of Latin will take 12, and any course numbered between 50 and 100. Students with four years of high school Latin will take 73-74-75 and any two courses numbered between 50 and 100.

MATHEMATICS

Major adviser—Associate Professor A. L. Underhill.

Mathematics as a major subject:

Prerequisite courses: Solid Geometry (entrance credit or its equivalent);† Higher Algebra taken either in high school or college. Mathematics 20 (The Mathematics of Investment) is strongly recommended as an elective. With the permission of the major adviser Math. 15-16, Elementary Mathematical Analysis (10 credits) may be accepted instead of 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.

Course No.	Title	Credits
Math. 6	Trigonometry	5
Math. 7	College Algebra	5
Math. 30	Analytic Geometry	5
Math. 50	Calculus I	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 61-62.

Physics as a major subject:

Prerequisite: Math. 16-17, 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. 52	Laboratory Arts	} 9
Phys. 110-112	Modern Experimental Physics (3 or 4 cred. per qtr.)	
Phys. 124	Pyrometry (3 cred.)	
Phys. 134	Experimental Optics (3 or 4 cred.)	
Phys. 136	Spectrum Analysis (3 or 4 cred.)	
Phys. 144	Electricity Measurement (3 cred.)	
Total credits		33

Physics as a minor subject:

Phys. 7-8-9	General Physics	15
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† 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.

Additional credits selected from the following:

Course No.	Title	Credits
Phys. 52	Laboratory Arts (3 cred.)	} 6
Phys. 107-109-111	Modern Physics (3 cred. per qtr.)	
Phys. 134	Experimental Optics (3 or 4 cred.)	
Phys. 136	Spectrum Analysis (3 or 4 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 81-82.

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 10 or 15 or 25 and 12 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 10 or 15 or 25. At least 3 credits must be in Senior College courses.

PUBLIC HEALTH

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		
Physiol. 51	Human Physiology	6
Total credits		23 or 25

ROMANCE LANGUAGES

Major advisers—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 Spanish Literature	9
or		
Span. 68-69	Survey of Spanish Literature	10
or		
Span. 74-75-76	Survey of Spanish-American Literature	9
Span. 50	Spanish Pronunciation	3
Span. 53	Spanish Composition }	6
Span. 54	Spanish Conversation }	
or		
Span. 20	Oral and Written Spanish	5
Span. 55	Spanish Conversation	3
Span. 60	Advanced Spanish Composition	3
Span. 70-71	Latin-American Culture	6

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 81-82.

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	Individual and Group Adjustment	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 F. M. Rarig, Bryng Bryngelson, C. Lowell Lees, Assistant Professor Howard Gilkinson.

For curriculum in speech pathology, see pages 82-83.

Speech as a major subject:*

Course No.	Title	Credits
Speech 1-2	Fundamentals of Speech	6
or		
Speech 5-6	Fundamentals of Speech	10
Speech 31	Introduction to the Theater	3
Speech 32	Beginning Acting	3
Speech 61	Speech Hygiene	3
Speech 67	Phonetics	3
Speech 81-82	Interpretative Reading	6
Speech 101-102	Argumentation and Persuasion	6
Speech 111-112	Stage Direction	6
Speech 121	Advanced Speech Problems	3

Total 39 or 43

* 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 fifteen 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.

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. Speech majors are required to have two minors.

Because of the close relation between English and speech in the high schools in Minnesota, students majoring in Speech must have one of their minors in English.

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 the Senior High School, 2 credits, as well as for Ed.T. 88A-B-C, Methods and Directed Teaching in Speech, 9 credits.

ZOOLOGY

Major adviser—Professor J. E. Wodsedalek.

For curriculum in natural science, see pages 61-62.

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—Professor A. M. Field.

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., 26; Agr.Eng., 18; Agron., 15; An. and Poul. Husb., 20; Bact., 5; Bot., 6; Chem., 8; D.Husb., 8; Ed., 3; Ent., 5; Hort., 6; Math., 5; Orientation, 1; Pl.Path., 5; Public Health, 5; Rhet., 15; Rural Soc., 3; Soils, 3; 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. 4, 12, 13, 40, and two elected courses; Agron. 21, 23, 31; An.Husb. 56, 57, or D.Husb. 103, 112 or 113; Poul. Husb. 1 and an elected course; D.Husb. 1 and two elected courses; Ent. 5; Hort. 6 and an elected course; Pl.Path. 1; Soils 4; 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. 13	Gas Engines and Tractors	3
Agr.Eng. 23	General Physics (not required of students who present a year of high school physics)	5
Agr.Eng. 40	Mechanical Training	3
Agron. 1*	General Farm Crops	3
An.Husb. 1	Livestock Production	4
Bot. 1, 2, 3, or Bot. 4, 5†	General Botany	6
Dy.Husb. 1	Elements of Dairying	3
Hort. 6	Fruit Growing	3
Inorg.Chem. 1-2	General Inorganic Chemistry }	8
Inorg.Chem. 4.5	or General Inorganic Chemistry }	

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

† Pl.Path. 8, Weeds, may be substituted for Bot. 3.

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

SOPHOMORE YEAR

Course No.	Title	Credits
Agr. Biochem. 4	Introduction to Organic and Biochemistry	5
Agr. Econ. 1,2	Principles of Economics I, II	8
Agr. Eng. 4†	General Woodworking	3
Agron. 31	Principles of Genetics	4
Bact. 53	General Bacteriology	5
Ent. 52	Introductory Entomology	5
or	Economic Entomology	
Ent. 5	Poultry Production	4
Poult. Husb. 1	Personal Health	2
P.H. 3	Community Hygiene	3
P.H. 50	Health of the School Child	3
P.H. 59	Soils	3
Soils 4	Soil Management	3
Soils 5	General Zoology	6
Zool. 14-15		

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

Course No.	Title	Credits
1. Freshman-sophomore courses not completed. See Bulletin of College of Agriculture, Forestry, and Home Economics for requirements for classification in the junior class.		
2. Rhet. 51	Exposition	3
3. Social science requirement.		
4. Education courses:		
Ed. 51A	Introduction to Secondary School Teaching	3
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
Agron. 21	Grain Crops	4
An. Husb. 56	Livestock Feeding	3
An. Husb. 57	Livestock Feeding	3
or	Dairy Stock Feeding	
Dy. Husb. 103	Plant Pathology	5
Pl. Path. 1	Public Speaking	3
Rhet. 22	Anatomy, Physiology, and Hygiene of Domestic Animals	3
Vet. Med. 52		

† Another course in agricultural engineering may be substituted for students with previous training in woodwork.

§ 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.

Senior Year

Course No.	Title	Credits
1. Education courses:		
Agr.Ed. 82	Methods in Teaching Agriculture	3
Agr.Ed. 83	Methods in Teaching Agriculture	2
Agr.Ed. 90	Observation and Participation	2
Agr.Ed. 91	Supervised Teaching Experience	3
Agr.Ed. 101	Part-time School Instruction	2
Agr.Ed. 102	Evening School Instruction	3
Agr.Ed. 103	Facilities and Materials	3
Agr.Ed. 104	Planning Programs	2
2. Agricultural courses:		
Agr.Eng. 12	Agricultural Machinery	3
Agron. 23	Forage Crops	4
An.Husb. 112	Animal Breeding	3
or		
An.Husb. 113	Livestock Management	3
Soc. 14	Rural Sociology	

RECOMMENDED ELECTIVES

ELECTIVES RECOMMENDED TO MEET AREA REQUIREMENTS FOR GRADUATION

Agricultural Economics—3 credits. Suggested courses: 8, 40, 50, 80, 144.

Agricultural Engineering—6 credits. Suggested courses: 3, 7, 31, 37, 41.

Animal and Poultry Husbandry—3 credits. Suggested courses:

Poult.Husb. 2, 51.

An.Husb. 3, 4, 51, 112 or 113.

Dairy Husbandry—5 credits. Suggested courses: 3, 101, 103, 104.

Horticulture—3 credits. Suggested courses: 21, 22, 32, 135.

FREE ELECTIVES RECOMMENDED

Agr.Biochem. 5 or 6	Ed.Psy. 120, 133	Pub. and Rural Jour. 53
Agr.Ed. 56	H.Ed. 74	Rhet. 11, 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, or II in Elementary Education (pages 43-48).

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. 6 or	Fruit Growing	} 3
56 or	Plant Propagation	
32	Vegetable Growing	
Dy. Husb. 1	Elements of Dairying	3
For. 10	Farm Forestry	3

ART EDUCATION

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

The College of Education offers a course of training in art education which students may enter at the beginning of the freshman year.

The curriculum in Art Education is based upon the assumption that "art is a way of life" appropriate to everybody and to all areas of living. All registrants should select courses to make a balance of types of experiences, some of them to develop ability to enjoy understandingly and discriminatingly the products of the creativeness of others, some to develop the creativeness, organizing ability, and art skills in the student himself.

"Design" (purposive activity to bring elements into harmonious relations) is the core of all the sequences, whatever their appreciation background, for whatever practical purpose the products are planned, or whatever the medium of expression. The three sections of introductory design experiences (ArtEd. 1-2-3) imply three emphases: (1) toward teaching art, (2) toward art production specialized for commerce or industry, (3) toward the use of art activities for social service especially in those fields of rehabilitation and recreation which war needs are now making important. The *sequences* suggested for these three emphases are indicated in the recommended program on pages 38-39.

RECOGNITION

Successful completion of the four-year curriculum leads to the B.S. degree and makes the graduate eligible for the Minnesota "high school standard special" certificate for teaching art in elementary and high schools. At least one teaching minor is required.

Five college years devoted to art education offer opportunity for more general academic education and more adequate preparation for the teaching and supervision of art from grades one through twelve than can be included in a four-year program.

The completion of a fifth year of study gives an advantage for placement and when the work has met the requirements listed on pages 39-40, including the examination and quality standard, it is recognized with the professional degree M.Ed.

The fifth year includes additional work in the academic minor, in technical courses in design and representation, in educational psychology, in curriculum construction, and in supervision.

Opportunity in the fifth year will be given for a quarter of combined internship and seminar. Opportunities will also be extended for the study of special problems which have developed in the field. The program is somewhat flexible and should meet needs of

student groups whose major interest is one of the following: (1) art teaching at selected levels, (2) art supervision, (3) research in one or more aspects of the problem of art education.

MINIMUM REQUIREMENTS FOR THE BACHELOR OF SCIENCE DEGREE
WITH A MAJOR IN ART

1. Art courses to maintain a balance of experience:
 - Group A—Design, at least 15 credits emphasizing original organizing.
 - Group B—Handcraft, at least 12 credits spent in experience with using handcraft material and processes.
 - Group C—Representation, 15 credits in drawing, painting, print processes, or modeling.
 - Group D—Appreciation, at least 9 credits giving theory and practice in evaluating, and background for evaluating and enjoying art.
 - Group E—Professional Courses, for teaching art; 3 credits to develop an art teaching philosophy; 12 credits in student teaching and special methods.
2. A teaching minor chosen from one of the academic departments and fulfilling the credit requirements as designated by that department. (See pages 26-32.)
3. Professional education courses:

Course No.	Title	Credits
61A-B-C	Introduction to Elementary School Teaching	} 9
or		
51A-B-C	Introduction to Secondary School Teaching	} 4
	Special methods in the academic minor	
	Education electives (see page 24)	

4. Required supporting courses:

Comp. A-B-C	Freshman English	} 18
or		
Comp. 4-5-6	Freshman Composition (or exemption)	} 12
	Additional English courses	
Hist. 1-2-3*	European Civilization 5
Soc. 1	Introduction to Sociology 6
Psy. 1-2	General Psychology 9
Fine Arts 1-2-3	Introduction to Art 3 or 5
	Physical Education 6 to 9
P.H. 59	Health of the School Child (and prereq. courses) 6 to 9

Additional academic electives selected from: science, languages, speech, English, 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 upon concerts, exhibitions, and plays is urged as 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.

5. Quality standard: C average outside of major; C+ or honor point average of 1.5 in the major.

REQUIREMENTS FOR A MINOR IN ART

Twenty-seven credits, in a balanced distribution which provides typical experiences in the five groups:

Suggested Courses

Group	Course No.	Title
A	ArtEd. 17-18-19†	Art for Elementary Teachers
	ArtEd. 1-2-3	Fundamental Experiences in Design Sec. 1 (for those interested in teaching at the secondary level)
	ArtEd. 14A-15A-16A	Introduction to Art Education Laboratory
	ArtEd. 54-55-56	Fundamental Experiences in Art (for administrators)
B	ArtEd. 31-32	Orientation in Handcraft Processes
C	ArtEd. 4-6-8	} See sections in drawing, painting, and print processes
	ArtEd. 24-26-28	
	ArtEd. 29, 30	

* If European history was not taken in high school.

† Required for elementary, kindergarten, and nursery school teachers.

Group	Course No.	Title
D	ArtEd. 14-15-16	Introduction to Art Education
	ArtEd. 14A-15A-16A	Introduction to Art Education Laboratory (See Group A)
E	ArtEd. 84†	Teaching of Art in Elementary Grades
	ArtEd. 86-87-88	Special Methods and Practice Teaching
	ArtEd. 185	Types of Art Instruction

A RECOMMENDED PROGRAM

FOR THE FIRST FOUR YEARS OF THE FIVE-YEAR CURRICULUM
OR FOR THE B.S. DEGREE

Freshman and Sophomore Years

Course No.	Title	Credits
Eng. A-B-C or 4-5-6	Freshman English	15 or 9
	Freshman Composition	
Hist. 1-2-3*	European Civilization	12
Soc. 1	Introduction to Sociology	5
Psy. 1-2	General Psychology	6
Phys.Ed.	Physical Education	3 or 5
	English‡	3 or 9
	Electives‡	

Art—30 credits balanced from Groups A, B, C, and D. Selection depending upon sequence emphasis.
See sections 1, 2, 3 of ArtEd. 1-2-3. Select from:

Group	Course No.	Title	Credits
A	ArtEd. 1-2-3	Fundamental Experiences in Design	9
	ArtEd. 20-21-22	Fundamental Experiences in Design II	3 to 9
B	ArtEd. 31-32	Orientation in Handcraft Processes	3 to 6
C	Studio Practice Courses.	Course number depends upon student proficiency	2 to 6
D	ArtEd. 14-15-16	Introduction to Art Education	3 to 9

Junior and Senior Years

Academic Courses—30 credits. To supplement or continue high school and Junior College preparation, and to complete the requirements in an academic teaching minor.

Art—42 credits selected from Groups A, B, C, D, E. Choice depending upon sequence emphasis.

Group	Course No.	Title	Credits
A	ArtEd. 150-151	Understanding Contemporary Design	3-6
	ArtEd. 153-154	Art and Society—153 The Home, 154 Costume	3-6
B	ArtEd. 73	Ceramic Materials and Processes	3
	ArtEd. 74, 75	Ceramic Processes	3-6
	ArtEd. 75B	Bookbinding Processes	3
	ArtEd. 75M	Metal Work	3
	ArtEd. 76	Textile Materials and Processes	3
	ArtEd. 77	Textile Processes Advanced	3
C	ArtEd. 78	Printing Processes for Textiles	3
	ArtEd. 81A-B	Techniques of Puppetry	2-4
	ArtEd. 61,62,63	Studio Practice	2-6
D	ArtEd. 66,67,68	Studio Practice	2-6
	ArtEd. 150-151	Understanding Contemporary Design (with emphasis on reading and research)	2-6
E	ArtEd. 153-154-155	Art and Society (with emphasis on reading and research)	3-9
	ArtEd. 183	Philosophy of Art Education	3
	ArtEd. 86-87-88	Special Methods and Student Teaching in Art	12

* If European history was not taken in high school.

† Required for elementary, kindergarten, and nursery school teachers.

‡ To total 18 credits in English in freshman and sophomore years. Freshman English cannot be included in the English minor, the requirements for which are listed on page 27.

§ Electives should be selected to meet the requirements of a teaching minor. Additional electives may be selected from science, languages, speech, social studies, etc.

Courses in Fine Arts and other departments.

Education—18 credits

Course No.	Title	Credits
Ed. 51A-B-C	Introduction to Secondary School Teaching	9
	Special Methods in academic teaching minor	4
	Educational electives (see page 24)	5
Total Senior College credits		90-93

FIFTH YEAR LEADING TO THE MASTER OF EDUCATION DEGREE

GENERAL REQUIREMENTS

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. Forty-five of these credits must be in courses numbered above 100.
6. A 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

	Credits
1. Academic electives in minor or related fields	12
2. Art education major	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 comprehensive in the education courses taken; (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.	

SUGGESTED COURSES FOR THE FIFTH YEAR

Course No.	Title	Credits
Academic electives in minor or related field		
	Courses numbered over 100*	12
Art Education major—24 credits chosen from the following:		
ArtEd. 124-125-126	Advanced Painting	2-6
ArtEd. 150E,151E	Advanced Design	3-9
ArtEd. 153-154-155	Art in Society	3-9
ArtEd. 156	Intercultural Education through Art	3
ArtEd. 183	Philosophy of Art Education	3
ArtEd. 185	Types of Art Instruction	3
ArtEd. 189	Application of Esthetic Theory to Public Education	3
ArtEd. 284E	Reading and Research in Art Education	3
ArtEd. 290-291-292-295	Special Problems in Art Education	2-6
Fine Arts 151, 152,153*	Medieval, Romanesque, and Gothic Art (3 cred. each)	3-9
Fine Arts 201-202-203*	Seminar—Special Problems in American Art	9
Arch. DP-IV	Drawing and Painting, Grade IV (Formerly 121, 122, 123)	2-6
Arch. DP-V	Drawing and Painting, Grade V (Formerly 221, 222, 223)	2-6
Arch. M-III	Modeling (Graduate level)	2-6
H.E. 120	Art History and Appreciation	3
H.E. 125	Advanced Costume Design	3
H.E. 180	Home Planning and Furnishing	5

* It may be necessary for the student to take prerequisite courses at the undergraduate level.

Education—9 credits. Suggestions:

Course No.	Title	Credits
Ed.C.I. 119 or	Elementary School Curriculum	3
Ed.C.I. 113	Secondary School Curriculum	3
Ed.C.I. 170	Curriculum and Course of Study Construction	3
Ed.C.I. 171	Curriculum Laboratory Practice	2-6
Ed.C.I. 150	Supervision and Improvement of Instruction }	3
or 266	Supervision of High School Instruction }	
Ed.Psy. 293-294	Psychology of Learning	6 or 3
Ed.Psy. 291	Individual Differences	3
Ed.Psy. 120	Basic Principles of Measurement	3

BUSINESS EDUCATION

Major adviser—Phyllis Vanderschaegen.

The curriculum in education is designed to prepare teachers of commercial subjects in secondary schools. It is purposely made much broader in its scope than the present program of the typical high school commercial department, with the idea of paving the way for meeting more effectively than at present the needs of high school students who enter business. Completion of this curriculum leads to the bachelor of science degree and provides the training necessary for the Minnesota "high school standard special" certificate for teaching commercial subjects. By a careful selection of electives it is possible to secure also one or two minors in academic subjects.

The first two years' work, taken in the Junior College, College of Science, Literature, and the Arts, consists of the regular academic requirements of that college, with the foreign language requirement omitted and foundation courses in psychology, economics, statistics, accounting, and secretarial training added.

Students who enter the College of Education from other institutions must substitute for some of their electives such of the Junior College requirements as they have not fulfilled. Graduates from the two-year course in state teachers colleges and transfer students who have not had typing and shorthand may find it necessary to attend an extra Summer Session or an extra year in order to meet all requirements.

Students who have had a high school course or experience in bookkeeping may be exempt from Econ. 20 and admitted to Econ. 25 by passing a placement test. Students who have had one year of high school typewriting are admitted to Econ. 33; those who have had two years of high school typewriting are admitted to Econ. 34. Students who have had two years of high school shorthand are admitted to Econ. 40 and are exempt from Econ. 37-38-39.

For the professional requirement in this curriculum, see pages 24-25.

FOUR-YEAR CURRICULUM IN COMMERCIAL EDUCATION

JUNIOR COLLEGE, COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS

Course No.	Title	Credits
Comp. 4-5-6	Freshman Composition (or Eng. A-B-C or exemption)	9
	Natural science (Exemption on the basis of two years of science in high school. G.C. 10A-B-C, Human Biology, or Natural Science Orientation is recommended)	9 or 10
Geog. 41	Geography of Commercial Production	5
	Additional social science, other than economics	10 or 12
Econ. 3	Elements of Money and Banking	5
Econ. 5	Elements of Statistics	5
Econ. 6-7	Principles of Economics	10
Econ. 20	Elements of Accounting	3
Econ. 25-26	Principles of Accounting	6

Course No.	Title	Credits
Econ. 32-33	Secretarial Training: Typewriting	2
Econ. 37-38-39	Secretarial Training: Shorthand	9
Psy. 1-2	General Psychology	6
	Physical Education	3 or 5
	Electives, for which the following are especially recommended: continuation of a language begun in high school, speech, philosophy, additional social science. The number of electives depends on entrance credit in shorthand, typing, accounting, and science.	
	Total	95

COLLEGE OF EDUCATION

Junior Year

B.A. 51-53	Business Law	6
B.A. 77	Survey in Marketing	3
B.A. 86	Office Management	3
B.A. 91	Tabulating Equipment Laboratory	1
B.A. 96	Business Equipment Laboratory	1
Econ. 40-41	Secretarial Procedure	6
Econ. 43	Advanced Shorthand Theory	3
Ed. 51A-B-C	Introduction to Secondary School Teaching	9
	Electives	14

Senior Year

Ed.T. 73A-B-C	Methods and Directed Teaching in Business Subjects	9
Econ. 161	Labor Problems and Trade Unionism	3
Econ. 175	Government Regulation of Business	3
Econ. 178	Economics of Consumption	3
B.A. 93	Accounting Laboratory	1
B.A. 180-181	Senior Topics Courses: Secretarial Practice	6
	Electives	23

For purposes of computing the C+ average (1.5 honor points per credit) the following are considered the major courses: Econ. 6-7, 20, 25, 26, 34, 40-41, 43, 178; B.A. 86, 180.

CURRICULUM AND INSTRUCTION

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

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.

English teachers may secure a Master's degree with a major in education or curriculum and instruction and a supporting minor in English under Plan A or Plan B. Courses applicable to the teaching of English from which the student may profitably choose are as follows: Ed.C.I. 113, 122, 133, 169, 293, 294, 296; Ed.Psy. 158, 208. The

seminar, Ed.C.I. 222, is required without credit for all students with a major or minor in theory and practice of teaching under Plan A. Programs should be arranged in consultation with a major adviser in the department.

FIFTH YEAR FOR TEACHERS OF SOCIAL STUDIES

Major adviser—Professor Edgar B. Wesley.

Social studies teachers may secure a Master's degree 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 in theory and practice of teaching under Plan A. Programs should be arranged in consultation with the major adviser in social studies.

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.

The student who wishes to specialize in administration or administration and supervision for any one of the following fields, superintendent of schools, elementary principal and supervisor, secondary school principal and supervisor, or other administrative position, must satisfactorily complete the requirements for the Master's degree. (See Bulletin of the Graduate School.)

The candidate for the Master's 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 approval of major adviser.

EDUCATIONAL PSYCHOLOGY

Major advisers—Professors Walter W. Cook, Palmer O. Johnson, W. S. Miller, C. Gilbert Wrenn; Associate Professors Guy L. Bond, 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's 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's 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 INSTRUCTION

CURRICULA IN ELEMENTARY EDUCATION FOR TEACHING, SUPERVISION,
OR ELEMENTARY SCHOOL PRINCIPALSHIPS

Major advisers—Elementary Education, Supervision, or Teaching: Professor L. J. Brueckner; Associate Professor Guy L. Bond; Assistant Professor Jean H. Alexander.

Nursery School, Kindergarten-Primary, and Parental Education: Professor J. E. Anderson.

Curriculum IA, Curriculum IB, Curriculum IC, and Curriculum II are for four different groups of students.

Curriculum IA and Curriculum II 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.

Curriculum IB prepares for nursery school, kindergarten-primary teaching and entitles the graduate to the Minnesota special *kindergarten-primary* certificate.

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

The three 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, parental education, and for instructors of elementary education in teachers colleges and other institutions.

CURRICULUM 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 kindergarten-primary certificate by continuing in Curriculum IB for the junior and senior years.

General Minimum Requirements for Curriculum IA and Curriculum IB

Course No.	Title	Credits
Comp. 4-5-6	Freshman Composition (or Eng. A-B-C or exemption).....	9
Geog. 11	Human Geography	5
Science	Biological sciences (General Botany, General Zoology, or both, or orientation course) total minimum required.....	10
Sp. 1-2	Fundamentals of Speech	6
Soc. 1	Introduction to Sociology	5
Soc. 49	Social Pathology	3
Social Studies	General Social Studies (history, political science, geography, sociology, economics, or orientation course).....	9
ArtEd. 17-18-19	Art for Elementary School Teachers	9

Course No.	Title	Credits
Ind. 11	Special-Class Woodwork	2
Mu. 1T	Music Theory	2
Mu. 31 or 32 or 33	Music Appreciation	2
Mu.Ed. 50A	Primary Methods	2
Psy. 1-2	General Psychology	6
H.E. 30	Introduction to Nutrition	2
Phys.Ed. 1-4	General Course in Physical Education	6
Phys.Ed. 60	Principles of Play	2
P.H. 3	Personal Health	2
	Electives	7-13
	Total	95

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 will not be held for the Junior College requirements in Comp. 4-5-6, Social Studies, Geog. 11, Sci. (10 credits), Sp. 1-2, Psy. 1-2; but they will be held for the other Junior College requirements for Curriculum IA and IB.

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 schools. 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 26-32) 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 44 or 45 credits.

1. Required of all—39 or 40 credits.

Course No.	Title	Credits
Ed. 61A-B-C	Introduction to Elementary School Teaching	9
Ed.Psy. 60	Introduction to Measurement and Statistics	2 or 3
ArtEd. 84	Teaching of Art in the Elementary Grades	3
Mu.Ed. 50B	Intermediate Methods	2
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.....	2
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.....	2
Ed.C.I. 63	Children's Literature.....	2
Ed.C.I. 64	The Teaching of English in the Elementary School.....	3
Ed.C.I. 65	The Teaching of Science in the Elementary School.....	3
Ed.T. 54A-B	Directed Teaching in the Elementary School.....	8

2. Five or six credits chosen from the following courses :

Ed.C.I. 105	Visual Aids in Teaching.....	2
Ed.C.I. 119	Elementary School Curriculum.....	3
Ed.C.I. 145	Remedial Reading.....	2
Ed.C.I. 150	Supervision and Improvement of Instruction.....	3
Ed.C.I. 181	Foundations of Elementary School Method.....	3
Ed.Psy. 120	Basic Principles of Measurement.....	3
Ed.Psy. 183	Education of Gifted Children.....	2
	Other electives by permission.....	2

Total 44 or 45

The C+ average is based on the 44 to 45 credits in elementary education.

Special examinations—Students should consult the advisers early in their course about the specific comprehensive examinations which may be required for directed teaching and for graduation. These vary somewhat for those desiring junior high school endorsement.

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 26-32 and minors in the special departments.
2. The course Ed.Ad. 167, Junior High School, which is to be substituted for Ed. 61C.
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 or experience in grades 7, 8, or 9.

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. 61A-B-C	Introduction to Elementary School Teaching.....	9
C.W. 80	Child Psychology.....	3
Ed.T. 55	Principles of Early Childhood Education.....	3
Ed.T. 56	Permanent Play Materials.....	2
Ed.T. 57	Plastic Materials.....	3
Ed.T. 59	Story Telling for Young Children.....	2
Ed.T. 76A-B-C	Methods and Observation.....	6
Ed.Psy. 60	Introduction to Measurement and Statistics }.....	2 or 3
or 120	Basic Principles of Measurement }.....	2 or 3
P.H. 57	Health of Infant and Preschool Child }.....	2 or 3
or 59	Health of the School Child }.....	2 or 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.....	2
Ed.C.I. 62	The Teaching of Arithmetic in the Elementary School.....	2
Ed.C.I. 63	Children's Literature.....	2
Ed.C.I. 64	The Teaching of English in the Elementary School.....	3

Course No.	Title	Credits
Ed.C.I. 65	The Teaching of Science in the Elementary School	3
Ed.T. 77A*	Directed Teaching in the Nursery School	4
Ed.T. 77B*	Directed Teaching in the Primary Grades	4
Ed.T. 77C*	Directed Teaching in the Kindergarten	4
C.W. 170	Parent Education	3
	Electives	26-28
Total		90

The C+ average is based on the following courses: C.W. 80, 170; Ed.T. 55, 56, 57, 59, 76A-B-C, 77A-B-C; Ed.C.I. 60, 61, 62, 63, 64, 65.

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. 61A-B-C	Introduction to Elementary School Teaching	9
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	2
Ed.C.I. 62	The Teaching of Arithmetic in the Elementary School	2
Ed.C.I. 63	Children's Literature	2
Ed.C.I. 64	The Teaching of English in the Elementary School	3
Ed.C.I. 65	The Teaching of Science in the Elementary School	3
C.W. 80	Child Psychology	3
C.W. 170	Parent Education	3
Ed.T. 55	Principles of Early Childhood Education	3
Ed.T. 56	Permanent Play Materials	2
Ed.T. 57	Plastic Materials	3
Ed.T. 59	Story Telling for Young Children	2
Ed.T. 76A-B-C	Methods and Observation	6
Ed.T. 77A*	Directed Teaching in the Nursery School	4
Ed.T. 77B*	Directed Teaching in the Primary Grades	4
Ed.T. 77C*	Directed Teaching in the Kindergarten	4
H.E. 30	Introduction to Nutrition	2
Mu.Ed. 50A	Primary Methods	2

CURRICULUM II (JUNIOR AND SENIOR YEARS)

COLLEGE OF EDUCATION

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:

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 elective courses in the junior high school field the certificate is made legal also for junior high school teaching.

* 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.

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

1. Required of all—11 or 12 credits.

Course No.	Title	Credits
Ed.Psy. 60	Introduction to Statistical Methods.....	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

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	}	3
	Problems in the Teaching of Elementary School Science		
Ed.C.I. 63 or 190	Children's Literature	}	2 or 3
	Principles of Selection of Materials for Reading in the Elementary School		
Ed.C.I. 102	The Teaching of the Social Studies in the Elementary School		3
Ed.C.I. 143 or 144	The Teaching of Reading in the Elementary School	}	2
	The Teaching of Reading in the Upper Grades and Junior and Senior High Schools		
Ed.C.I. 148 or 149	The Teaching of Primary Grade Arithmetic	}	2
	The Teaching of Intermediate Grade Arithmetic		
Ed.C.I. 153	Supervision and Teaching of English in the Elementary Schools		2
	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—9 or 10 credits.

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.

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

1. A regular minor as listed on pages 26 to 32 or in one of the special fields listed under the specialized curricula. Requirements for minors vary usually from 18 to 36 credits.

2. 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 26-32 and Combined Class Schedule). 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	Physical Education
(other than history or geography)	Others by special permission

3. Academic electives—12-24 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.

Special examinations—Students should consult an adviser early in their course about special examinations which may be required for graduation.

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 towards 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, usually four credits, is to be included in the nine credits in methods required under A. Taking the psychological examinations and C+ average (1.5 honor points per credits) 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.

FIFTH YEAR IN THE GRADUATE SCHOOL

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

It is recommended that as a rule students without any teaching experience teach a year or two before taking graduate work. Students will select their advisers according to their specialization, interests, and needs. For the list of advisers see the introductory statement (page 43). For a statement of the general plan of graduate work in the College of Education, see the Bulletin of the Graduate School.

HIGHER EDUCATION

Major advisers—Dean W. E. Peik; Professor T. R. McConnell; Associate Professor Ruth E. Eckert.

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—Curriculum and Instruction; Ed.Ad. 253, Administration in Higher Education; Ed.Psy. 252, Student Personnel Work in College and University; 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 for 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 University Committee on 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 Professor Theodore Brameld.

Work in the history and philosophy of education is available at the graduate level. 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 M. McNeal, Clara M. Brown, 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 psychological and other 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 (1) 1½ honor points per credit in 40 credits of home economics work in the curriculum for General Home Economics Teaching, (2) 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

GENERAL HOME ECONOMICS TEACHING*

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

Course No.	Title	Credits
	<i>Freshman Courses</i>	
H.E. 1	Freshman Assembly	1
	Choice and Care of Clothing	4

* 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.

COLLEGE OF EDUCATION

Course No.	Title	Credits
H.E. 3	Clothing Construction A	3
H.E. 10	Introduction to Home Economics	2
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
Rhet. 1,2,3	Rhetoric I, II, III (or exemption)	9
Rhet. 34	Books and Reading	1
Zool. 14-15 and Physiol. 4 or G.C. 10A-B Dy.Husb. 20	General Zoology } Human Physiology } Human Biology }	6-10
Chem. 1-2 or 4-5 or 6-7 or G.C. 37B G.C. 37A or Agr.Eng. 35	Household Microbiology (or Bact. 53)	4
Soc. 1 Phys.Ed. §	General Inorganic Chemistry } Physical Science II: The Nature of Chemistry } Physical Science I: Energy and Matter } Household Physics }	5-10
	Introduction to Sociology	3-5
	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. 40	Food Preparation	5
H.E. 41	Food Management and Marketing	5
C.W. 40 or H.E.Ed. 90	Child Training	3
Rhet. 22	Public Speaking	3
Rhet. 31 or 32 or 33	Survey of English Literature I or II (or Rhet. 60)	3 or 5
Bact. 53	American Life in American Literature	3
Agr.Biochem. 4	General Bacteriology (or Dy.Husb. 20)	4 or 5
Agr.Econ. 3 or Econ. 6-7 Psy. A or Psy. 1-2	Introduction to Organic and Biochemistry	5
	Principles of Economics } Principles of Economics } Elementary Psychology }	5 or 10
	General Psychology	5 or 6

Junior and Senior Courses

H.E. 50	Textiles	3
H.E. 53*	Advanced Clothing	3
H.E. 85	Home Management: Operation and Maintenance, Lectures	4
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. 52	Health Care of the Family	3
Rhet. 51	Exposition (unless exempted from the course)	3

* 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.

Course No.	Title	Credits
Rhet. 60	Contemporary Literature (or Rhet. 31 or 32 or 33)	3
Ed. 51A-C	Introduction to Secondary School Teaching	6
Agr.Econ. 126	Economics of Consumption	3
H.E.Ed. 90	Child Training (or C.W. 40)	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	6
H.E.Ed. 192	Evaluation in Home Economics	2

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, political science, philosophy, or sociology. See All-College Requirements in the Bulletin of the College of Agriculture, Forestry, and Home Economics.

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, 37A-B, 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. 75	Dietetics Laboratory	2
H.E. 142	Experimental Cookery	3
H.E. 173	Nutrition in Disease	3
H.E. 179	Readings in Nutrition	2

Home Economics Extension

Those who wish to go into home economics extension teaching should fulfill the requirements of the general teachers' curriculum and add:

Course No.	Title	Credits
H.E.Ed. 194A.B	Adult Education in Home Economics	3-6

Teaching Related Art

Those interested in teaching Related Art should:

- a. Select the minimum credit requirement in science when there is an option.
- b. Omit Agr. Econ. 126.
- c. 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 from the following Art Education or Architectural Drawing:

ArtEd. 4-6-8 or Arch. DP-I	Drawing from Still Life and Pose	2 a qtr.
	Drawing and Painting, Grade I	2 a qtr.

**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, will be 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 would qualify a person for high school teaching and for some college positions. The attainment of added training should facilitate professional promotion.

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

Satisfaction of part of the education requirement may be made through internship in a home economics department in a secondary school. The internship will include full time work for one quarter in a home economics department in a secondary school off the campus. The intern will work under the supervision of her adviser at the University and will return to the campus regularly for Saturday morning conferences which will deal with classroom, 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. 100	Social Psychology	3
Soc. 101	Social Organization	3
Soc. 104	City Planning	3
Soc. 110	Rural Community Organization	3
Soc. 112,	Problems in Rural Social Research	2
Soc. 114	Rural Social Institutions	3
Soc. 119	The Family	3
Soc. 120	Social Life and Culture Change	3
Soc. 161	Social Aspects of Housing and Standards of Living	3
B.A. 101-102	Advanced General Economics	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

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	Credits arranged
H.E.Ed. 194A	Adult Education	3
H.E.Ed. 194B	Adult Education	3
H.E.Ed. 292	Problems in Evaluation	3
H.E.Ed. 294	Research Methods	3-6
Ed.Psy. 146-147	Child Guidance	4
Ed.Psy. 158	Psychology of Adolescence	3
Ed.Psy. 159	Personality Adjustments in Education	2 or 3
Ed.Psy. 225	Diagnosis and Counseling in Guidance	3
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

Course No.	Title	Credits
Ed. C.I. 285	Professional Education of Teachers	2
Ed.C.I. 250	Higher Education	3
Ed.Ad. 133	Guidance in Secondary Schools	2
H.E. 101	Historical Foundations of Modern Education	3
H.E. 176	Conflicting Issues in Modern Education	2
H.E. 177	Philosophic Foundations of Modern Education	3
H.E. 178	Education and Problems of American Democracy	3
Ind. 110	Guidance in the Schools	3
C.W. 170	Parent Education	2

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 Verne C. Fryklund.

The following curriculum has been designed for young men who desire to prepare for teaching, administrative, and supervisory positions in the fields of industrial arts and trade education. 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-Deen 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. General industrial 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 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 adviser, 200 Eddy Hall, 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 with the adviser as to status and program.

In the four-year program curriculum shown following (leading to the B.S. degree), courses numbered 101 and 110 carry graduate credit for students who have not presented them earlier as undergraduate earnings. The department offers many other professional courses of advanced type. See pages of course descriptions near the close of this bulletin.

FOUR-YEAR CURRICULUM IN INDUSTRIAL EDUCATION

Freshman Year

Course No.	Title	Credits
Comp. 4-5-6	Freshman Composition (or A-B-C or exemption)	9
Math. 1	Higher Algebra	5
Pol.Sci. 1-2	American Government and Politics	6
Geog. 11	Human Geography	5
M.E. 1	Elementary Woodworking	2
M.E. 2	Machine Woodworking	2
M.E. 3	Wood Finishing	2
Drawing	Engineering Draw. 1-2 (or Technical Draw. 41-42-43)	6
Ind. 30	Graphic Presentation	3
Ind. 80	General Industrial Training (not a shop course)	2
Phys.Ed. 1-2-3	Sports Education	3-45

Sophomore Year

Course No.	Title	Credits
Soc. 1	Introduction to Sociology	5
Phys. 1-2-3	Introduction to Physical Science	9
Psy. 1-2	General Psychology	6
M.E. 8	Foundry Practice	3
M.E. 12	General Metal Work	2
M.E. 19	Machine Shop Practice	2
Ind. 40	Analysis	2
Ind. 42	Course Organization	2
Ind. 44	Equipment and Management	2
Ind. 60	Philosophy of Vocational Education	2
Ind. 61	Practices in Vocational Education	2
Ind. 66	Related Subjects	2
ArtEd.	(To be specified)	3
Elective	(Academic)	3-45

Junior Year

Course No.	Title	Credits
Econ. 6-7	Principles of Economics	10
Chem. 1-2	General Inorganic Chemistry	8
Ed. 51A-B-C	Introduction to Secondary School Teaching	9
Agr.Eng. 40	Mechanical Training	3
Agr.Eng. 41	Metal Work	3
Agr.Eng. 42	Art Metal Work	3
Ind. 70	Methods in Shop Subjects	2
Ind. 75	Methods in Drawing	2
Ind. 101	Tests in Industrial Subjects	3
Ind. 110	Guidance in the Schools	3-46

Senior Year

Course No.	Title	Credits
Hist. 80-81-82	Introduction to Economic History	9
Ind. 50A-B-C†	Directed Teaching	6
Dunwoody	Building Construction Drafting	3
Dunwoody	Electricity	3
Elective	Shopwork or Drawing	11
Elective	Academic	15-47

Total 183

† Senior status, taking the psychological examinations, and a C+ average (1.5 honor points per credit) are prerequisite to this course; also Ind. 80 and either 70 or 75.

A degree candidate is privileged to complete his work under the curriculum form which was current when he entered.

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.

The required 25 credits in shopwork and 9 credits in drawing (34 total) are increased by election to a maximum of 45 credits. All such courses should be selected under advice and may be either extensive or intensive in resultant preparation for teaching. Credits in excess of 45 will be recorded but will not be counted toward the graduation requirements.

Requirements above are classified as follows: 90 credits in academic subjects, 15 in education, 27 in industrial education, 45 in shopwork and drawing, and 6 in directed teaching. Total credit requirement, 183.

GRADUATE COURSES AVAILABLE

Ind. 102	The General Shop (not a shop course)
Ind. 103	Instructional Aids
Ind. 104	Defense Training
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. 170	Day Industrial Schools
Ind. 171	Evening Industrial Schools
Ind. 172	Part-Time Education
Ind. 200	Research Problems
Ind. 250-251	Industrial Education Literature

FIFTH YEAR LEADING TO THE MASTER OF EDUCATION DEGREE

The College of Education awards the master of education degree (M.Ed.) to those 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 adviser. See statement above.

LIBRARY METHODS*

Major advisers—Professor Errett W. McDiarmid; Associate Professor Lura C. Hutchinson.

The following curricula have been arranged in co-operation with the Division of Library Instruction to offer professional library training to persons who desire to do library work in connection with the public schools.

Successful completion of one of the four-year curricula will entitle the student to the degree of bachelor of science. Curriculum A will also entitle the student to receive the Minnesota high school general certificate for teaching academic subjects in junior and senior high schools.

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

The tuition fees for full-time students who are enrolled in this specialized curriculum are \$42 per quarter for residents of Minnesota and \$54 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 \$3.25 per credit for residents and \$4.50 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.

Students qualify for a secondary school certificate by completing requirements for a teaching major or two teaching minors in subjects commonly taught in Minnesota high schools. It will usually be wisest to choose majors and minors in the fields of English, history, and the social studies. Such students are required to take special methods and directed teaching in the teaching major or in one of the minors. They are also required to take five credits in education electives. (See page 24.)

Students registered in the College of Education are expected to do part of their practice work in the University High School library and part in another approved school library or public library branch doing school library work.

Graduates of the College of Education who already have an elementary or secondary school certificate and who complete an additional year of library training (45 credits) as registered students in the college, will be granted an official certificate on satisfactory completion of a year's work (45 credits) in library methods.

Students who have completed the four-year course in a teachers college and already hold a Bachelor's degree and a teaching certificate *must consult the dean* of the College of Education *at the time of entrance* if they expect to become candidates for a degree.

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

FOUR-YEAR CURRICULUM FOR SCHOOL LIBRARIANS WITH A
TEACHER'S CERTIFICATE

JUNIOR COLLEGE, COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS

Freshman Year

Course No.	Title	Credits
Eng. A-B-C	Freshman English	15
or		
Comp. 4-5-6	Freshman Composition (or exemption from the requirement)	9
Hist. 1-2-3	European Civilization	12
	Language	15
Phys.Ed. 1-2-3	General Course in Physical Education	3
	Electives†	3-9
	Total	48

Sophomore Year

Psy. 1-2	General Psychology	6
	Natural Science	10
	Language	5
Phys.Ed. 4-7	General Course in Physical Education	2
	Electives†	24
	Total	47

COLLEGE OF EDUCATION

Junior Year

Lib.Meth. 52	Cataloging	3	
Lib.Meth. 54	Classification	3	
Lib.Meth. 62	Reference	3	
Lib.Meth. 57	} Secondary School Libraries	} any two	
Lib.Meth. 58			Public Library Administration
Lib.Meth. 64			Selection of Books for Adolescents
Lib.Meth. 71	Library Work with Children	3	
Ed. 51A-B-C	Introduction to Secondary School Teaching	9	
	Continuation of required elective academic courses†	18	
	Total	45	

† Electives should be selected to meet the requirements of one teaching major or two teaching minors. Electives should also include five credits in education courses (see page 24).

Senior Year

Course No.	Title	Credits
	Special Methods and Directed Teaching§	9
	Completion of academic requirements	
	Library courses	27
	Electives in education†	5
	General electives‡	4
	Total	45

Minor in Library Training

Students who complete 18 credits selected from Courses 52, 54, 57, 58, 62, 64, 71, and 72 will satisfy the requirement for a minor in library training. For a state endorsement a minimum of nine credits must be selected from this list.

MUSIC EDUCATION

Major advisers—Professor Paul M. Oberg; Assistant Professor Hazel B. Nohavec.

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, women students must earn 185 credits and 185 honor points and men students must earn 183 credits and 183 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 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, 54, 55, 56, 65, 68; Mu. 60, 63.

Following are the specific regulations and requirements applying to this course:

† Electives should be selected to meet the requirements of one teaching major or two teaching minors. Electives should also include five credits in education courses (see page 24).

‡ Taking the psychological examinations and a C+ average (1.5 honor points per credit) in the major are prerequisites 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 Combined Class Schedule Bulletin.

FOUR-YEAR CURRICULUM IN MUSIC EDUCATION

Freshman and Sophomore Years

Course No.	Title	Credits
Comp. 4-5-6	Freshman Composition	9
Mu. 1T,2T,3T,4T	Music Theory	13
Mu.Ed. 1	Music Orientation	0
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	12
Soc. 1	Introduction to Sociology.....	5
	Physical Education	3 or 5
	Academic electives (minor).....	14-19
	Total	93 or 95

Junior and Senior Years

Mu.Ed. 50A	Primary Methods	2
Mu.Ed. 50B	Intermediate Methods	2
Mu.Ed. 52	Technique of Teaching Appreciation.....	1
Mu.Ed. 53	High School Methods.....	3
Mu.Ed. 54	Public Performance and Operetta Production.....	3
Mu.Ed. 65	Instrumentation	3
Mu.Ed. 70	Accompanying and Sight Reading.....	2
Mu.Ed. 59	Choral Literature and Conducting.....	3
Mu. 60 or 61 or 62	Instrumental Ensemble }	2
or 63	Vocal Ensemble	
Mu. 59	Technique of Voice	2
Mu. 76	Form and Analysis	3

Course No.	Title	Credits
Mu. 40-41-42	Orchestra	3
or 43-44-45	University Chorus	
or 46-47-48	Concert Band†	
Ed. 51A-B-C	Introduction to Secondary School Teaching	9
Mu.Ed. 68	Conducting of Instrumental Music and Survey of Materials	4
Mu.Ed. 55	Survey and Evaluation of Vocal Materials and Methods	4
Mu.Ed. 60-61-62	Music Supervision and Student Teaching	9
	Special Methods (Academic minor)	4
	Practical Music	6-12
	Electives in education	5
	Academic electives (minor)	9-18
	Total	90

**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 15) 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 M.Ed. Degree

I. **Electives in academic major or minor** (or closely related field)—15 to 17 credits. Courses must be numbered 100 or above.

II. **Music major**—12 credits elected from the following:

Course No.	Title	Credits
Mu. 209-210-211	Advanced Topics of Musical Analysis	3, 6, or 9
Mu. 225	Advanced Applied Music	6-8
Mu. 200-201-202	Basis of Musical Expression	3, 6, or 9
Mu. 205-206-207	Composition in Larger Forms	3, 6, or 9

III. **Music Education**—10 credits elected from the following:

Mu.Ed. 101	Tests and Measurements in Music Education	2
Mu.Ed. 220E	Survey and Evaluation of Recent Research in Music Education	3
Mu.Ed. 224E	Seminar and Individual Research Problems in Music Education	2-6
	Optional Internship and Seminar	8

† Music Education majors will be allowed a maximum of 6 credits in Concert Band.

IV. Education—6 credits elected from the following:

Course No.	Title	Credits
Ed.Psy. 293	Psychology of Learning	3
Ed.C.I. 113	High School Curriculum	3 or 4
Ed.C.I. 119	Elementary School Curriculum	3
Ed.C.I. 150	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.		
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	Primary Methods	2
or 50B	Intermediate Methods	2
or 53	High School Methods	3
Mu.Ed. 54	Public Performance and Operetta Production	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 F. K. Butters.

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, 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. 51A-B-C, Ed.T. 68A-B-C, and 8 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 51-52.
- 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 meet the requirement in 1. In addition 9 credits in geology, or 5 credits in geology and 5 credits in astronomy, are required.

NURSERY SCHOOL AND KINDERGARTEN EDUCATION

See Elementary Education Curriculum I B, pages 43-46.

NURSING EDUCATION AND PUBLIC HEALTH NURSING

Major adviser—Nursing Education: Professor Katharine J. Densford.
Public Health Nursing: Assistant Professor Ruth Freeman.

The following courses are arranged so as to indicate the minimum requirements for students wishing to secure a bachelor of science degree with a major in nursing. They are planned to prepare the student for such public health nursing positions as visiting nursing, school nursing, health teaching, infant welfare, rural and industrial nursing; for administrative, supervising, and teaching positions in schools of nursing and hospitals; and for combined positions in secondary schools involving both nursing and teaching. In the case of those who choose proper subjects and qualify for a teaching minor in the College of Education it entitles the graduates to receive a *high school teacher's certificate*.

I. FIVE-YEAR CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF SCIENCE AND GRADUATE IN NURSING

The course is open to high school graduates who meet the entrance requirements of the College of Science, Literature, and the Arts. It is divided into:

Part I. Five quarters in the College of Science, Literature, and the Arts.

Part II. Ten quarters in the School of Nursing (first quarter on the campus, nine quarters in clinical divisions).

Part III. Three quarters in the College of Education or in the School of Public Health.

PART I. COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS

During the first five quarters of the course the student is registered in the College of Science, Literature, and the Arts, during which time she must complete required subjects, as listed below and must earn a scholarship average of one honor point per credit.

A. Required courses.

Course No.	Title	Credits
Comp. 4-5-6	Freshman Composition (or Eng. A-B-C or exemption).....	9
Soc. 1	Introduction to Sociology.....	5
Soc. 49	Social Pathology.....	3
Psy. 1-2	General Psychology.....	6
C.W. 40 or H.E.Ed. 90	Child Training.....	3
Anat. 3	Elementary Anatomy.....	3
Physiol. 2 or Physiol. 4 or Physiol. 60*	Elements of Physiology } Human Physiology } Human Physiology }.....	4-6
Physiol. 1 or Physiol. 50*	Elements of Physiological Chemistry } Physiological Chemistry }.....	4
Bact. 1 or Bact. 53* or Bact. 101	Elements of Bacteriology } General Bacteriology } Medical Bacteriology }.....	4-5
H.E. 30 or 31	Introduction to Nutrition (or Nu. 10).....	1-3
	Physical Education.....	5

B. Elective courses (to make a total of 75 credits for five quarters or 90 credits for six quarters).

Chem. 1-2 or 4-5 or 6-7	General Inorganic Chemistry.....	8-10
Zool. 1-2-3	General Zoology.....	10
Zool. 22	Comparative Anatomy.....	5
Hist. 1-2-3	European Civilization.....	12
Pol.Sci. 1-2,3	American Government and Politics.....	6 or 9
	Other Social Science	
Phil. 3	Ethics.....	5
Anthrop. 41	Introduction to Anthropology—Culture Areas and Culture Traits.....	5
	Other electives as desired.	

Before registering each quarter students should have their programs checked by their adviser in the School of Nursing.

PART II. SCHOOL OF NURSING

During the next ten quarters the student is registered in the School of Nursing, taking required subjects and nursing practice as listed in the School of Nursing Bulletin, including Educational Psychology, Ed. 51A, 3 credits, and Social Pathology, Soc. 49, 3 credits. Sixty credits are granted for the practical work taken in the University of Minnesota School of Nursing for Part II.

* Preferred courses.

PART III. COLLEGE OF EDUCATION

During the last three quarters 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.

All students must spend three full quarters in this portion of the curriculum regardless of additional academic work previously carried.

A. Nursing Education

Nursing Education has, in addition to the primary pattern, five variants: Ward Administration, Teaching of Sciences, Child Care, Nutrition, and Physical Therapy. For any one of these the student registers in the College of Education.

Primary pattern—Prepares students for nursing in institutions, for administration, or for teaching in hospitals and schools of nursing.

Course No.	Title	Credits
Ed. 51A-B	Introduction to Secondary School Teaching	6
Ed.T. 51A	Special Methods of Teaching in Schools of Nursing	3
Ed.T. 51B†	Special Methods of Teaching and Directed Teaching in Schools of Nursing	5
Nurs. 60	Ward Administration	4
Nurs. 69	Survey of Conditions and Trends in Nursing	3
Nurs. 71	Curriculum Making in School of Nursing	3
	Electives	18
	Education electives approved by adviser	3
Total		45

Variant for those interested in Ward Administration: Prepares the student for the position of head nurse in hospitals.

Nursing Courses

Course No.	Title	Credits
Nurs. 60	Ward Administration	4
Nurs. 65	Comparative Nursing Procedures	4
Nurs. 67*	Field Practice in Ward Administration	6
Nurs. 69	Survey of Conditions and Trends in Nursing	3
Nurs. 71	Curriculum Making in Schools of Nursing	3
Nurs. 73	Principles of Economics in Nursing Service Administration	1

Education Courses

Course No.	Title	Credits
Ed. 51A-B	Introduction to Secondary School Teaching	6
Ed. T. 51A	Special Methods of Teaching in Schools of Nursing	3
Ed.T. 51B†	Special Methods of Teaching and Directed Teaching in Schools of Nursing	5
	Electives in History and Philosophy of Education	3
Other requirements		
	Electives	7
Total		45

Variant for those interested in the Teaching of Sciences in schools of nursing—Prepares the student to teach basic sciences and clinical courses in schools of nursing. The purpose is to build a broad knowledge and deep understanding of such medical sciences

*Enrolment is limited. Permission of major adviser required.

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

1. A passing grade in Ed. 51A-B.
2. Taking the psychological examinations in the College of Education.
3. Attainment of a scholastic average of 1.5 in the field in which the practice teaching is to be done. A major portion of the work in the teaching field should be completed.
4. The recommendation of the subject-matter department in the major field.
5. Passing of the required speech test.

If possible, Ed. 51B should be completed before beginning Ed.T. 51A.

By careful selection of electives and with an additional quarter the public health nursing certificate may be earned. See the Bulletin of Preventive Medicine and Public Health.

as are included in the nursing curriculum and to study the problems involved in the teaching of these sciences.

Any student who shows special aptitude and interest in the science courses during her first year and who is interested in choosing this variant is urged to consult an adviser in the School of Nursing for assistance in planning her preclinical courses since many of the required science courses must be completed prior to assignments to clinical experience.

Nursing Courses

Course No.	Title	Credits
Nurs. 60	Ward Administration	4
Nurs. 69	Survey of Conditions and Trends in Nursing	3
Nurs. 71	Curriculum Making in Schools of Nursing	3
Nurs. 74	Sciences in a School of Nursing Curriculum	5

Education Courses

Ed. 51A-B	Introduction to Secondary School Teaching	6
Ed.T. 51A	Special Methods of Teaching in Schools of Nursing	3
Ed.T. 51B†	Special Methods of Teaching and Directed Teaching in Schools of Nursing	5
	Electives in education	3

Science Courses

Physiology 50 and Physiology 60 are required in addition to the following courses and should be taken in the second year of prenursing program. If they have not been taken previously, it will probably take more than three quarters to complete this variant.

Bact. 53 or 101	General Bacteriology or Medical Bacteriology	5
Bact. 102	Medical Bacteriology	4
Zool. 149-150 or Zool. 21	Histology and Organology }	5 or 6
Zool. 22 or Anat. 59	Histology } Comparative Anatomy } Systematic Anatomy }	
	Total	46 to 48

Variant for those interested in Child Care—Prepares the student for work in pediatric wards or clinics, work with both well and sick children, and serves as an excellent background for nurses who may later seek additional preparation for public health work with children.

Nursing Courses

Course No.	Title	Credits
Nurs. 60	Ward Administration	4
Nurs. 69	Survey of Conditions and Trends in Nursing	3
Nurs. 71	Curriculum Making in Schools of Nursing	3

Education Courses

Ed.T. 51A	Special Methods of Teaching in Schools of Nursing	3
Ed. 61A-B or Ed. 51A-B	Introduction to Elementary School Teaching } Introduction to Secondary School Teaching }	6

Child Welfare and Nursery School Courses

C.W. 80	Child Psychology	3
C.W. 170	Parent Education	3
Ed.T. 55	Principles of Early Childhood Education	3
Ed.T. 57	Plastic Materials	3
Ed.T. 59	Story Telling for Young Children	2
Ed.T. 75	Directed Teaching in the Nursery School	4
Ed.T. 76A-C	Methods and Observation	4
Mu.Ed. 50A	Primary Methods	2
	Electives approved by major adviser	2

Total

45

† See † footnote on page 66.

Variant for those interested in Nutrition—Prepares the student for any position in which more than ordinary mastery in this field is desirable, as for example, in medical nursing. Students taking this curriculum must have completed Home Economics 30, Introduction to Nutrition, 2 credits, before entering the School of Nursing.

Nursing Courses

Course No.	Title	Credits
Nurs. 60	Ward Administration	4
Nurs. 69	Survey of Conditions in Nursing, including War Nursing	3
Nurs. 71	Curriculum Making in Schools of Nursing	3

Education Courses

Ed. 51A-B	Introduction to Secondary School Teaching	6
Ed.T. 51A	Special Methods of Teaching in Schools of Nursing	3
Ed.T. 51B†	Special Methods of Teaching and Directed Teaching in Schools of Nursing Electives in education approved by adviser	5 6

Home Economics Courses

Agr.Biochem. 4*	Introduction to Organic and Biochemistry	5
H.E. 34	Nutrition Problems	4
H.E. 170	Nutrition of the Family	3
H.E. 173	Nutrition in Disease	3
Total		45

Variant for those interested in Physical Therapy—Prepares the student for positions of physical therapist as well as for supervisory or teaching positions in clinical specialties in which physical therapy is an important form of treatment.

An individual program may be worked out with the director of physical therapy. This variant may require extra time. The minimum requirements for completion of the course are listed below.

Nursing Courses

Course No.	Title	Credits
Nurs. 60	Ward Administration	4
Nurs. 69	Survey of Conditions and Trends in Nursing, including War Nursing	3
Nurs. 71	Curriculum Making in Schools of Nursing	3

Education Courses

Ed. 51A-B	Introduction to Secondary School Teaching	6
Ed.T. 51A-B†	Special Methods of Teaching in Schools of Nursing and Directed Teaching in Schools of Nursing	8

Physical Therapy Courses

Subject	Hours§
Anatomy	210
Clinical practice	400
Electrotherapy	75
Ethics and administration	5
Hydrotherapy	20
Massage	60
Pathology	30
Physiology	75

* If student has not had organic chemistry.

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

1. A passing grade in Ed. 51A-B.
2. Taking the psychological examinations in the College of Education.
3. Attainment of a scholastic average of 1.5 in the field in which the practice teaching is to be done. A major portion of the work in the teaching field should be completed.
4. The recommendation of the subject-matter department in the major field.
5. Passing of the required speech test.

If possible, Ed. 51B should be completed before beginning Ed.T. 51A.

By careful selection of electives and with an additional quarter the public health nursing certificate may be earned. See the Bulletin of the School of Public Health.

§ Requirements in hours, not credits.

Subject	Hours§
Principles of physical therapy applied to:	
Medicine	45
Neurology	25
Orthopedics	45
Surgery	45
Psychology	15
Therapeutic exercises	105
Electives	45
Total physical therapy hours	1,200

B. Public Health Nursing

This curriculum leads to the bachelor of science degree with a major in public health nursing. By careful selection of courses the student may also qualify for the state high school teacher's certificate. Students who wish to register during these quarters in the School of Public Health should consult the bulletin of that school.

The following courses are required in addition to the requirements listed under Part I.

Social Science Courses

Course No.	Title	Credits
Soc. 49	Social Pathology	3
Soc. 90	Survey of Social Work	5
or 129	Principles of Social Case Work	3
	Elective in sociology or child welfare	3
	Social science other than sociology	9

Natural Science Courses

Bact. 53	General Bacteriology	5
or 101	Medical Bacteriology	5
	Science courses (including courses listed in Part I)	15

Public Health Courses

P.H. 53	Elements of Preventive Medicine	5
P.H. 62-63	Principles of Public Health Nursing	6
P.H. 65,66,67	Field Practice in Public Health Nursing	15-23
P.H. 81	Introduction to Health Education	3
P.H. 133	Mental Hygiene Aspects of Public Health Nursing (or P.H. 61)	3
P.H.	Electives, minimum	8
	General electives, any department	8

Education Courses

Ed. 51A-B	Introduction to Secondary School Teaching	6
Ed.T. 50A*	Special Methods and Directed Teaching in Public Health Education for Public Health Nurses	6
	Electives in education	14

The C+ average is based on all the public health courses.

II. CURRICULA FOR STUDENTS WHO ARE GRADUATES OF ACCREDITED SCHOOLS OF NURSING

Open to those who present evidence of graduation from an accredited high school and an accredited school of nursing. Advanced credit for the professional nursing courses will be determined by the Committee on Evaluation of Nursing Credentials which will indicate any additional hospital services to be completed before credit is granted. Forty-five credits represent approximately the average advanced standing granted for a satisfactory course of study in a hospital school of nursing; fifty-three in a hospital school having its pre-

* Taking the psychological examinations in the College of Education is prerequisite to this course.
§ Requirements in hours, not credits.

nursing sciences taught in the University of Minnesota; fifty-five in other university schools; and sixty in the University of Minnesota School of Nursing.

Candidates must conform to the College of Education regulation relative to total credits and honor points, and are entitled to privilege of quality credit rule. Candidates must also meet the physical education requirements of the College of Education.

To secure a degree in the College of Education students must earn 185 credits and 185 honor points, and in addition 1½ honor points for each credit in a major field.

The amount and type of college courses to be required of each candidate are to be decided by her major adviser after consideration of a candidate's general education and experience. All programs must also be approved by the Students' Work Committee and the dean of the College of Education. As a rule the following curricula meet the needs of most students. Substitutions may be made by petition upon the recommendation of the major adviser and the Students' Work Committee of the College of Education.

A. Nursing Education

Major adviser—Professor Katharine J. Densford.

Courses to be included in this program will be found in Part I and Part III A of the five-year curriculum (pages 63-64) and sufficient electives as recommended by the major adviser to fulfill the total credit and honor point requirement.

A suggested sequence for the graduate nurse follows. (Chemistry and Zoology are highly recommended as electives and prerequisites to Physiology 60 but are not required. Physiology 2 may be substituted for Physiology 60.)

First Year

Course No.	Title	Credits
Comp. 4-5-6	Freshman Composition (or Eng. A-B-C or exemption).....	9
Chem. 1-2 or 4-5 or 6-7	General Inorganic Chemistry.....	8-10
Zool. 1-2-3	General Zoology	10
Soc. 1	Introduction to Sociology.....	5
	Physical Education	5
	Electives to total approximately 50 credits	

Second Year

Psy. 1-2	General Psychology	6
Physiol. 2 or Physiol. 60	Elements of Physiology }	4-6
C.W. 80	Human Physiology }	
Soc. 49	Child Psychology (or C.W. 40)	3
Ed. 51A	Social Pathology	3
Nurs. 60	Introduction to Secondary School Teaching	3
	Ward Administration	4
	Electives to total 45 credits	

Third Year

Ed. 51B	Introduction to Secondary School Teaching	3
Ed.T. 51A-B†	Special Methods of Teaching and Directed Teaching in Schools of Nursing	8
Nurs. 69	Survey of Conditions and Trends in Nursing	3
Nurs. 71	Curriculum Making in Schools of Nursing	3
	Electives in education	3
	General electives to total 45 credits	

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

1. A passing grade in Ed. 51A-B.
2. Taking the psychological examinations in the College of Education.
3. Attainment of a scholastic average of 1.5 in the field in which the practice teaching is to be done. A major portion of the work in the teaching field should be completed.
4. The recommendation of the subject-matter department in the major field.
5. Passing of the required speech test.

If possible, Ed. 51B should be completed before beginning Ed.T. 51A.

By careful selection of electives and with an additional quarter the public health nursing certificate may be earned. See the Bulletin of the School of Public Health.

B. Public Health Nursing

Courses will correspond in general to Part I and Part III B of the five-year curriculum together with such electives, recommended by the major adviser, as may be needed to fulfill the total credit and honor point requirements. See Bulletin of School of Public Health.

PHYSICAL EDUCATION FOR MEN

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

Physical Education 1, 2, and 3, Sports Education courses, are required of all freshmen in the College of Education except physical education majors and minors. See Combined Class Schedule for activities and period schedule.

The following curricula have been designed for men who desire to prepare for teaching and administrative positions in the field of physical education. Completion of either curriculum entitles a student to Minnesota High School Standard Special certificate.

Two plans are included:

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.

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, pages 70-71.
2. A total of twenty-six credits in education including methods and directed teaching in physical education, methods in the minor, and Ed. 51A-B-C.
3. At least one teaching minor which may be fulfilled partially in the required curriculum.
4. A methods course in the teaching minor unless two teaching majors are completed.
5. A total of 183 credits at least ninety of which must be in academic (other than education) courses. These courses must be carried with a C average.
6. 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. Eighteen additional credits in courses numbered above 100 in physical education.
2. A minor in a teaching field with the special methods course in that field or an additional major unless fulfilled in the requirements for the B.S. degree.
3. Additional courses to complete two hundred twenty-eight credits, ninety of which must be in academic (other than education) courses. A maximum of thirty-five credits are allowed in education excluding *all* courses in physical education.
4. During the last two years a minimum of forty-five credits with an average of B in courses numbered 100 and above.
5. Examinations
 - a. Each candidate is required to pass a written comprehensive examination covering the major in physical education.
 - b. Each candidate is required to pass a written comprehensive examination in education.
 - c. Each candidate is required to pass the following examinations as a basis for the estimation of his qualifications as a teacher:
 - (1) A formal written examination in methodology.
 - (2) Each candidate is required to demonstrate proficiency by teaching two demonstration classes. One of these will be at the request of the director of student teaching, the other will be the choice of the candidate.

- d. Each candidate is required to pass an oral examination conducted by the members of the Committee on Standards, a faculty member of the field in which the candidate is specializing, and a faculty member selected in the field of the candidate's minor.
- e. Health examination within one year prior to graduation.

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 101E and 103E.
2. Eighteen additional credits in physical education courses numbered above 100.
3. Ed. 51A-B-C, Introduction to Secondary Teaching, or equivalent.
4. A maximum of thirty-five transfer and University of Minnesota education credits are allowed excluding all courses in physical education.
5. At least one teaching minor or an additional teaching major† equivalent to University of Minnesota requirements which include a methods course. The minor or additional major may be fulfilled partially in the required curriculum. For major and minor requirements see pages 26-32.
6. Forty-five credits in courses numbered 100 and above with average grade of B.
7. At least ninety transfer and University of Minnesota credits in academic (other than education) courses.
8. The examinations previously indicated under item B5.

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
Science courses—human anatomy, physiology, applied anatomy (Mechanics of Movement, Kinesiology)	9
Physical Education Activities	12
Professional physical education theory courses	15
Methods and directed teaching in physical education	9
	45

REQUIRED COURSES IN PHYSICAL EDUCATION MAJOR FOR THE B.S. DEGREE

Course No.	Title	Credits
Comp. 4-5-6	Freshman Composition	9
Sp. 1-2	Fundamentals of Speech	6
Chem. 6-7	General Inorganic Chemistry	10
or 9-10	General Inorganic Chemistry	10
Zool. 1-2-3	General Zoology	10
or		
G.C. 10A-B-C§	Human Biology	9
Soc. 1	Introduction to Sociology	5
Psy. 1-2	General Psychology	6
P.H. 3§	Personal Health	2
P.H. 51	Community Hygiene	3
Physiol. 50	Physiological Chemistry	4
Physiol. 51	Human Physiology	6
Phys.Ed. 4A-B-C*	Fundamentals of Athletic Sports	3
Phys.Ed. 5A-B-C*	Physical Education Activities	3
Phys.Ed. 6A-B-C*	Intramural Sports	3
Phys.Ed. 7A-B-C*	Physical Education Activities	3
Phys.Ed. 8*	Dual Spring Sports	1
Phys.Ed. 9*	Rhythms	1
Phys.Ed. 25†	First Aid	1
Phys.Ed. 50	Human Anatomy	4

* Students must complete the course or demonstrate proficiency to qualify for exemption and credit.

† Offered in the Department of Physical Education for Women.

§ No student may receive credit for both G.C. 10C and P.H. 3.

¶ Unless fulfilled in the student's undergraduate curriculum.

Course No.	Title	Credits
Phys.Ed. 51	Mechanics of Movement.....	3
Phys.Ed. 53,54,55	Methods and Materials in Physical Education.....	4
Phys.Ed. 56	Nature and Function of Play.....	2
Phys.Ed. 57	Operation and Conduct of Play Centers.....	3
Phys.Ed. 60	Prevention and Care of Injuries.....	2
Phys.Ed. 63	Organization and Administration of Physical Education.....	3
Phys.Ed. 67,69	Coaching of Athletic Sports (Football, Track).....	4
Phys.Ed. 73,74,75	Directed Teaching.....	6
Phys.Ed. 83†	School Health Education, Method and Content.....	3
Phys.Ed. 101E	Principles of Physical Education.....	3
Phys.Ed. 103E	Physical Examination and Adaptation of Activities.....	3

Eighteen credits are required from the following group in physical education to obtain the master of education degree:

Phys.Ed. 111E†	Advanced Course in Methods of Teaching in Physical Education.....	3
Phys.Ed. 112E†	Supervision of Physical Education.....	3
Phys.Ed. 113E†	Physical Education in the Elementary Schools.....	3
Phys.Ed. 114E†	Administration of the School Health Education Program.....	3
Phys.Ed. 116E†	Problems in Physical Fitness.....	1 to 3
Phys.Ed. 133E	Special Administrative Problems in Physical Education.....	3
Phys.Ed. 134E	The Secondary School and College Curriculum in Physical Education.....	3
Phys.Ed. 135E	Tests and Measurements in Physical Education.....	3
Phys.Ed. 136E	Leadership in Community Recreation.....	3
Phys.Ed. 137E	Recent Literature and Research in Health Education, Physical Education, and Recreation.....	3
Phys.Ed. 138E	Administration of Physical Education in Colleges and Universities.....	3
Phys.Ed. 141E	Administration and Supervision of Public Recreation.....	3
Phys.Ed. 142E	Group Leadership and Community Organization for Recreation.....	3
Phys.Ed. 237E	Problems in Health Education, Physical Education, and Recreation.....	Ar

ELECTIVES IN PHYSICAL EDUCATION

Phys.Ed. 61	History of Physical Education.....	2
Phys.Ed. 66A-B	Methods and Techniques of Officiating.....	4
Phys.Ed. 68,72§	Coaching of Athletic Sports (Basketball, Baseball).....	4
Phys.Ed. 78	Elements of Scout Leadership.....	2
Phys.Ed. 79	Campcraft and Camp Administration.....	2

REQUIREMENTS IN EDUCATION

Candidates for the Bachelor's degree are required to have Ed. 51A-B-C plus 8 credits in education electives (see page 24).

A maximum of thirty-five education credits is required for the M.Ed. degree.

Courses from which balance of required education credits may be elected:

Course No.	Title	Credits
P.H. 59	Health of the School Child.....	3
H.Ed. 71	Brief Course in History of Education.....	5
H.Ed. 73	Educational Sociology.....	3
H.Ed. 178	Education and Problems of American Democracy.....	2
H.Ed. 179	Critical Thinking for Teachers.....	2
H.Ed. 180	The School and the Social Order.....	2
Ed.Ad. 124	Public School Administration.....	3
Ed.C.I. 104	Adult Education.....	2
Ed.C.I. 105	Visual Aids in Teaching.....	2
Ed.C.I. 107-108	Radio in Education.....	2 or 4
Ed.C.I. 113	High School Curriculum.....	3
or 119	Elementary School Curriculum.....	3
Ed.C.I. 150	Supervision and Improvement of Instruction.....	3
or 266	Supervision of High School Instruction.....	3
Ed.C.I. 169	Extra-Curricular Activities.....	2

† Offered in the Department of Physical Education for Women.

§ Students without varsity squad experience will be required to take the course or courses.

Course No.	Title	Credits
Ed.Psy. 133	Guidance in Secondary Schools	2 or 3
Ed.Psy. 158	Psychology of Adolescence	3
or 159	Personality Adjustments in Education	2 or 3

Other educational electives may be included in this group to meet the needs of students.

REQUIREMENTS FOR A MINOR IN PHYSICAL EDUCATION FOR MEN

A total of 29 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. 53,54,55	Methods and Materials in Physical Education	4
Phys.Ed. 57	Operation and Conduct of Play Centers	3
Phys.Ed. 60	Prevention and Care of Injuries	2
Phys.Ed. 63	Organization and Administration of Physical Education	3
Phys.Ed. 83†	School Health Education, Method and Content	3
Phys.Ed. 101E	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—Three 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. 9	Rhythms	1

PHYSICAL EDUCATION FOR WOMEN

Major adviser—Associate Professor Gertrude M. Baker.

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.

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

† Offered in the Department of Physical Education for Women.

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. 1-2-3	European Civilization	12
Eng. A-B-C or	Freshman English (or exemption).....	15
Comp. 4-5-6 or	Freshman Composition	9
G.C. 61-62-63†	Writing Laboratory	9
Zool. 1-2-3	General Zoology	10
Soc. 1	Introduction to Sociology	5
Phys.Ed. 21	Elementary Physical Education	6
Phys.Ed. 25	First Aid	1
P.H. 3	Personal Health	2
	Electives (Consult adviser)	

Sophomore Year

P.H. 4	Health Problems of Adult Life.....	2
Chem. 1-2	General Inorganic Chemistry.....	8
Sp. 1-2	Fundamentals of Speech	6
Psy. 1-2	General Psychology	6
Phys.Ed. 41	Intermediate Physical Education	9
Phys.Ed. 50	General Anatomy	4
Phys.Ed. 63,64, 65A,73A	Teaching Techniques in Physical Education	3½
Phys.Ed. 66A	Advanced Physical Education	½

Junior Year

Phys.Ed. 51	Mechanics of Movement	3
Ed. 51A-B-C	Introduction to Secondary School Teaching	9
Ed.T. 83	Methods and Materials of School Health Education	3
Physiol. 50	Physiological Chemistry	4
Physiol. 51	Human Physiology	6
Phys.Ed. 60	Principles of Play	3
Phys.Ed. 57,61, 65B,73B	Teaching Techniques in Physical Education	7
Phys.Ed. 66B	Advanced Physical Education	½
P.H. 59	Health of School Child	3
Phys.Ed. 61‡	History of Physical Education	2
	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

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

‡ Offered in Department of Physical Education for Men.

Phys.Ed. 95	Administration of Physical Education	3
Phys.Ed. 90A-B-C†	Student Teaching	8
Phys.Ed. 116E	Problems in Physical Fitness	3
	Education electives	7
	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‡

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.

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. 133E*	Special Administrative Problems in Physical Education	3
Phys.Ed. 134E*	Curriculum in Physical Education	3
Phys.Ed. 135E*	Tests and Measurements in Physical Education	3
Phys.Ed. 136E*	Leadership in Community Recreation	3

* Offered in the Department of Physical Education for Men.

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

‡ See pages 17-18 of this bulletin for further information regarding M.Ed. degree.

Course No.	Title	Credits
Phys.Ed. 137E*	Recent Literature and Research in Health Education, Physical Education, and Recreation	3
Phys.Ed. 138E*	Administration of Physical Education in Colleges and Universities	2
Phys.Ed. 141E*	Administration and Supervision of Public Recreation	3
Phys.Ed. 142E*	Group Leadership in Community Recreation	3
Phys.Ed. 237E*	Problems in Health Education, Physical Education, and Recreation	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 an 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. 51A-B-C, Introduction to Secondary School Teaching, 9 credits, plus 10 additional credits in education exclusive of practice teaching.

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	
Phys.Ed. 112E	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. 137E	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 pages 17-18 of this bulletin.

REQUIREMENTS FOR A MINOR IN PHYSICAL EDUCATION FOR WOMEN

I.	Elementary and Intermediate Physical Education Skill Courses	7
	<p><i>NOTE</i>—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.</p>	
II.	Technique Courses (minimum of 3 credits)	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

* Offered in the Department of Physical Education for Men.

† May be taken by Correspondence Study.

VI. Electives selected from the list below.....	3
Phys.Ed. 25 First Aid	1 cred.
Phys.Ed. 41s Life Saving and Water Front Safety	1 cred.
Phys.Ed. 54 Camp Leadership	2 cred.
Phys.Ed. 60 Principles of Play	2 cred.
Phys.Ed. 80 Principles of Rhythm	2 cred.
Phys.Ed. 61f History of Physical Education	2 cred.
 Total	 26

CURRICULUM FOR 9-CREDIT STATE ENDORSEMENT FOR TEACHING
PART-TIME PHYSICAL EDUCATION

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

I. Activity Courses 4-6 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.

RECREATIONAL LEADERSHIP

Major advisers—Associate Professor Carl L. Nordly; Assistant Professors Jean H. Alexander, Edwin C. Haislet.

This curriculum, instituted in 1938, is offered to meet the increasing demand and need for trained recreation leadership in schools, community centers, industry, youth-serving agencies, playgrounds, and in the armed services of our country.

The course gives the student a broad cultural background, appreciation and ability in certain fundamental recreation skills, and includes the broad fundamental principles of community organization for recreation.

The curriculum leads to the degree of bachelor of science with a major in recreation.

FRESHMAN AND SOPHOMORE YEARS

Students register in the College of Education and the lower division courses may be selected from the offerings in the College of Science, Literature, and the Arts, the General College, or the four-year curricula in physical education, music education, art education, and industrial education.

The pattern of the lower division curriculum is designed to provide an "education for leisure." Such a program as this provides a nucleus of educational experience that will enable one to live more satisfyingly in a world that increasingly demands social understanding and rich inner resources of creative expression. Course G.C. 61A has been planned for those who are considering the field of recreation as a profession or those who wish to know about leisure problems and opportunities for their personal satisfaction. Suggested and required courses in various fields for the freshman and sophomore years are indicated below.

* May be taken by Correspondence Study.

† Offered in the Department of Physical Education for Men.

Freshman and Sophomore Years

Group A: Biological Sciences—Twelve to thirteen credits required.

Course No.	Title	Credits
Suggested Courses		
G.C. 10A-B	Human Biology	3 or 6
Nat.Sci. 3	Orientation in Natural Science.....	5
Zool. 1-2-3	General Zoology	10
Bot. 1-2-3	General Botany	10
Bot. 10	Minnesota Plant Life.....	3
Bot. 12	Plants Useful to Man.....	3
Physiol. 4	Human Physiology	4
Anat. 3	Elementary Anatomy	3
Psy. 4-5	Introductory Laboratory Psychology.....	4

Group B: Physical Sciences—Fifteen credits required.

Suggested Courses		
G.C. 37B	Physical Science II—The Nature of Chemistry.....	5
G.C. 37C	Physical Science III—Sound, Astronomy, and Technology.....	5
Nat.Sci. 1-2	Orientation in Natural Science.....	5 to 10
Ast. 11	Descriptive Astronomy	5
Geo. 8	Introductory Geology	5
Phys. 1-2-3	Introduction to Physical Science.....	6 or 9
Chem. 6-7 or 9-10	General Inorganic Chemistry.....	10

Group C: Social Sciences: History, Geography, Economics, Political Science, and Sociology—Fourteen to fifteen credits required.

Suggested Courses		
Soc.Sci. 1-2-3	Introduction to Social Science.....	12
Soc. 1	Introduction to Sociology.....	5
Econ. 1	Industrial History	5
Hist. 1-2-3	European Civilization	12
Hist. 20-21-22	American History	9
Hist. 17	Social and Economic—History of Modern Europe.....	5
Anthrop. 40 or 41 or 42	Introduction to Anthropology.....	5
Geog. 11	Human Geography	5
Pol.Sci. 1-2	American Government and Politics	6
Pol.Sci. 7	Comparative European Governments.....	3
Pol.Sci. 10	Fundamentals of Government and Politics.....	3

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

Required Courses		
Comp. 4-5-6 or A-B-C or G.C. 31A-B-C	Freshman Composition or Freshman English }	9 to 15
Sp. 1-2 or 5-6	Writing Laboratory }	
	Fundamentals of Speech	6 to 10

Group E: Skills and Their Appreciations—Thirteen to fifteen credits required.

Required Courses		
G.C. 21A-B-C or G.C. 22A-B-C or F.A. 1-2-3	General Arts }	
G.C. 24A-B or 24B-C or Mu. 31-32 or 32-33	Art Today }	6 to 9
Phys.Ed. 1-2-3 or Phys.Ed. 1-2-3-4	Introduction to Art }	
	Music Today	6 to 9
	Music Appreciation	4
	Sports Education (men).....	3
	College Program in Physical Education (women).....	5

Group F: Psychology, Recreation, and Health.**Required Courses**

Course No.	Title	Credits
G.C. 61A	Survey of Recreation Activities.....	3
Psy. 1-2	General Psychology	6
P.H. 3†	Personal Health	2

Group G: Electives.

General electives to total 93 or 95 credits

MAJOR IN LEADERSHIP IN RECREATION

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 requirement in Group F above as well as special entrance requirements.

Requirements for all students desiring to enter or to continue in the recreation leadership major which begins 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.

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 give them some assurance that they have met the requirements under (1) and (2) of entrance requirements are encouraged to register.

Those university 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 can graduate with or without a teaching certificate. No teaching certificate is issued for the recreation major, but can be obtained only by including preparation for a teaching minor 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.

The curriculum is designed to meet graduation requirements of the College of Education and includes the public health requirement. (See page 14.)

COLLEGE OF EDUCATION*Junior and Senior Years***PSYCHOLOGY AND EDUCATION**

A minimum of 20 credits is required.

Group A—Required courses.

Course No.	Title	Credits
Ed. 51A-B-C	Introduction to Secondary School Teaching.....	9
Phys.Ed. 56	Nature and Function of Play.....	2
or 60	Principles of Play.....	2
Ed. 104	Adult Education	2
Psy. 140	Social Psychology	3

† See health requirement, page 14.

Group B—One course required.

Course No.	Title	Credits
Ag.Ed. 54	Rural Education and Community Leadership	3
Ed.C.I. 169	Extra-curricular Activities	2
Phys.Ed. 82†	Principles of Physical Education	2
or 101	Principles of Physical Education	3

Group C—One course required.

C.W. 80	Child Psychology	3
C.W. 82	Later Childhood and Adolescence	3
Psy. 72	Psychology of Fine Arts	3
Psy. 130	Vocational Psychology	2
Ed.Psy. 158	Psychology of Adolescence	3
Ed.Psy. 159	Personality Adjustments in Education	3

SOCIOLOGY AND POLITICAL SCIENCE

A minimum of 6 credits is required.

Pol.Sci. 120	Community Functions	}	3
or 121	Community Administration		
or 125	Recent Social Legislation		
or 161	Problems in Democracy		
Soc. 70	Introduction to Group Work	}	3
or 101	Social Organization		
or 110	Rural Organization		
or 114	Rural Social Institutions		

ADMINISTRATION OF RECREATION

A minimum of 22 credits is required.

Phys.Ed. 54	Camp Leadership	}	2
or 79	Camp Craft and Camp Administration		
Phys.Ed. 57	Operation and Conduct of Play Centers		3
Phys.Ed. 136	Leadership in Community Recreation		3
Phys.Ed. 141	Administration and Supervision of Public Recreation		3
Phys.Ed. 142	Group Leadership and Community Organization for Recreation		3

Additional credits from the following:

Phys.Ed. 66A-B	Officiating of Athletics	2
Ag.Ed. 56	Rural Youth Leadership	3
For. 143	Forest Recreation	3
Phys.Ed. 78	Elements of Scout Leadership	2
Ag.Ed. 54	Rural Education and Community Leadership	3
Ed.C.I. 169	Extra-curricular Activities	2
Phys.Ed. 82 or 101	Principles of Physical Education	2 or 3

PUBLIC HEALTH§

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

ADVANCED SKILLS AND THEIR APPLICATION

A minimum of 16 credits is required.

Group A—Four to six credits in physical education skill and first aid are required.

Required Courses for Men		
Phys.Ed. 7A-C	Physical Education Activities	2
Phys.Ed. 9	Rhythms	1
Required Courses for Women		
Phys.Ed. 21A-B-C	Freshman Team Sports	2
Phys.Ed. 23A-B	Elementary Folk Dances and Games	1
Required Courses for Men and Women		
Phys.Ed. 25	First Aid	1
or 60	Prevention and Care of Injuries	2

† Offered in the Department of Physical Education for Women.

§ See health requirement, page 14.

Group B—Skills other than Physical Education—A minimum of 10 to 12 credits is required.

Required Courses

Course No.	Title	Credits
Sp. 31	Introduction to the Theater.....	3
ArtEd. 31	Orientation in Handcraft.....	3

Additional credits in art, music, speech, dramatics, woodwork, photography or other skills, selected in conference with adviser.

PRACTICE AND FIELD WORK

A minimum of 15 credits is required.

Ed.T. 88A-B-C	Practice and Field Work in Recreation.....	6
Special Methods and Directed Teaching in Minor.....		9

CAMPUS ACTIVITIES

Participation in and learning from campus activities.....		0
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ELECTIVES

General electives.....		8
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MINOR IN RECREATIONAL LEADERSHIP**REQUIRED COURSES**

Phys.Ed. 25	First Aid	}	1 or 2
or 60	Prevention and Care of Injuries.....		
Phys.Ed. 57	Operation and Conduct of Play Centers.....		2
Phys.Ed. 136	Leadership in Community Recreation.....		3
Phys.Ed. 141	Administration and Supervision of Public Recreation.....		3
Phys.Ed. 142	Group Leadership and Community Organization for Recreation.....		3
Psy. 140 or Soc. 100	Social Psychology.....		3
Ed.T. 85A-B	Practice and Field Work in Recreational Leadership.....		3

CONTROLLED ELECTIVES

One course selected from the following:

Phys.Ed. 56	Nature and Function of Play	}	2
or 60	Principles of Play.....		
Ed.C.I. 169	Extra-curricular Activities.....		2
Ed.C.I. 104	Adult Education.....		2
Ed.C.I. 105	Visual Aids in Education.....		2
Ed.Psy. 158 or	Psychology of Adolescence	}	3
C.W. 82	Later Childhood and Adolescence.....		

SKILLS

Skills and Their Application (chosen in consultation with major advisers in recreation).....		12
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SCHOOL HEALTH EDUCATION MINOR

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).

Group A—Scientific Background

Course No.	Title	Credits
G.C. 10A-B	Human Biology	6
G.C. 10C [‡] or	Human Biology	7 or 8
P.H. 3 and	Personal Health	
P.H. 4 or	Health Problems in Adult Life	
P.H. 50 or	Public and Personal Health	
P.H. 51	Community Hygiene	
H.E. 30 or 31	Introduction to Nutrition	2
P.H. 59	Health of the School Child	3
Soc. 110	Introductory Psychiatry	2
Phys.Ed. 25	First Aid	1
		21 or 22

Group B—School Health Education Theory

Ed.T. 83	Methods and Materials of School Health Education	3
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Group C—Administration

P.H. 106	Public Health Administration	3
Ed.C.I. 114	The School Health Education Program	3

Group D—Directed Teaching

Phys.Ed. 90	Student Teaching—Direct Health Instruction in the Classroom	1
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SOCIAL STUDIES

Major adviser—Professor Edgar B. Wesley.

The secondary teacher of the social studies is seldom given an opportunity to devote his entire schedule to one special subject. Prospective teachers are therefore urged to take some work in each of the social studies. The following programs are designed to furnish a diversified preparation. The social studies program outlined below covers both the major and the minor. 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.

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, 3, 103-104, 161, 178, and at least 3 additional credits in courses numbered above 100.
 2. Geography, 28 credits, composed of Courses 11, 41, 53, 71, 101, 110, 111, and 120.
 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.

[‡] See Public Health requirement, page 14.

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. Not fewer than 5 credits in any one subject will be counted toward the requirement of 18 credits in other subjects.

SPEECH PATHOLOGY

Major adviser—Professor Bryng Bryngelson.

This program of study has been arranged for those students who are interested in children 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. Junior and senior electives should be selected from the following: Psy. 84; Soc. 49, 53, 100; C.W. 40, 90, 140, 170. See also requirement in public health, page 14.

COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS

Freshman and Sophomore Years

Course No.	Title	Credits
Comp. 4-5-6	Freshman Composition (or English A-B-C or exemption).....	9
Phys.Ed. 1-7	General Course in Physical Education.....	5
Zool. 1-2-3	General Zoology.....	10
Psy. 1-2	General Psychology.....	6
Sp. 1-2-3	Fundamentals of Speech.....	9
Psy. 4-5	Introductory Laboratory Psychology.....	4
Zool. 83	Introduction to Genetics and Eugenics (optional).....	3
Zool. 21	Histology (optional—recommended for those minoring in zoology).....	5
Physiol. 2	Elements of Physiology.....	5
HumanAnat. 3	Elementary Anatomy.....	3
P.H. 3	Personal Health.....	2
	Physical Education.....	3 or 5
	Electives.....	29-31
	Total	93 or 95

COLLEGE OF EDUCATION

Junior and Senior Years

Course No.	Title	Credits
Sp. 61	Personality—Development through Speech.....	3
Sp. 67	Phonetics.....	3
Sp. 162-163	Speech Pathology.....	6
Psy. 144-145 or 113	Abnormal Psychology.....	6 or 3
Psy. 151-152	Animal Psychology.....	6
or 52	Genetic Psychology.....	3
Ed.Psy. 60	Introduction to Statistical Methods.....	2-3
Ed.Psy. 142	Construction and Use of Individual Aptitude Tests.....	3
Ed. 61A-B-C	Introduction to Elementary School Teaching.....	9
or 51A-B-C	Introduction to Secondary School Teaching.....	9
Ed.C.I. 145	Remedial Reading (optional).....	2
Sp. 141-142-143	Voice Science.....	9

Course No.	Title	Credits
Soc. 90	Case Method as Applied to the Study of Human Problems.....	3
Ed.C.I. 174-175-176*	Clinical Methods in Lip Reading and Practice in Speech Pathology.....	9
C.W. 80	Child Psychology	3
C.W. 82	Later Childhood and Adolescence.....	3

The C+ average is based on the following courses: Sp. 61, 67, 162-163; Ed.Psy. 60, 142; Ed.C.I. 174-175-176; C.W. 80.

Graduate School (Fifth Year)

The fifth year of this curriculum is devoted to graduate work. See Graduate School Bulletin for detailed requirements. Only those having at least a B average in undergraduate work will be considered for graduate study. The major, consisting of at least 18 credits for the M.S. degree, should be selected on approval of the major adviser from the following:

Sp. 121-122, 141-142, 181-182-183, 261-262-263; Psy. 114, 118, 125-126; Zool. 170-171; Ed.Psy. 150, 159, 233; C.W. 130, 131.

A minor selected from courses in education, psychology, zoology, child welfare, or physiology is recommended.

STUDENT PERSONNEL WORK

Major adviser—Professor Walter W. Cook.

Work leading to the M.A. or Ph.D. degree can be taken with a concentration in this field. Preparation is possible for either 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, Practice in Personnel Work. Basic courses are Ed.Ad. 133; Ed.C.I. 135; Ed.Psy. 120, 141, 158, 159, 225, 233; and Ed. 252. In addition, students are advised to become familiar with curriculum and administrative problems at either the public school or higher educational 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 SUBNORMAL CHILDREN

Major adviser—Associate Professor Guy L. Bond.

The four-year program outlined below is for students without teaching experience who wish to qualify for the elementary and special teaching certificate.

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.

* Taking the psychological examinations and a C + average in the major are prerequisite to this course.

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. 61A-B; Ed.Psy. 142, 184; Ed.T. 53A-B; Ed.C.I. 60, 61, 62, 63, 64, 65, 145; C.W. 80.

FOUR-YEAR CURRICULUM FOR TEACHERS OF SUBNORMAL CHILDREN

Freshman and Sophomore Years

The program for the freshman and sophomore years follows the general pattern outlined for elementary education. See pages 43-44. Electives should be chosen upon the recommendation of the adviser.

Junior Year

Course No.	Title	Credits
Ed. 61A,B,C	Introduction to Elementary School Teaching	9
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	2
Ed.Psy. 60	Introduction to Measurement and Statistics	2-3
Ed.Psy. 158	Psychology of Adolescence	3
or		
C.W. 82	Later Childhood and Adolescence	3
Ed.Psy. 184	Education of the Slow Learning Child	2
Phys.Ed. 60	Principles of Play	2
Soc. 49	Social Pathology	3
Soc. 60	Social Protection of the Child	3
C.W. 80	Child Psychology	3
	Electives	12 or 13

Senior Year

Course No.	Title	Credits
Ed.C.I. 62	The Teaching of Arithmetic in the Elementary School	2
Ed.C.I. 63	Children's Literature	2
Ed.C.I. 64	The Teaching of English in the Elementary School	3
Ed.C.I. 65	The Teaching of Science in the Elementary School	3
Ed.C.I. 145	Remedial Reading	2
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
Ed. 133	Guidance in Secondary Schools	2-3
Soc. 90	Case Method as Applied to the Study of Human Problems	3
	Electives	13 or 14

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 elementary 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.

FOUR-YEAR CURRICULUM FOR VISITING TEACHERS
 JUNIOR COLLEGE, COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS

Freshman Year

Course No.	Title	Credits
Eng. A-B-C	Freshman English	15
or		
Comp. 4-5-6	Freshman Composition (or exemption)	9
Hist. 1-2-3	European Civilization	12
G.C. 10A-B-C	Human Biology	9
Soc. 1	Introduction to Sociology	5
Phys.Ed. 1-2-3	General Course in Physical Education	3
	Electives†	4-10
	Total	48

Sophomore Year

Econ. 6-7	Principles of Economics	10
Hist. 20-21-22	American History	9
Pol.Sci. 1-2-3	American Government and Politics	9
Soc. 6	Social Interaction }	3
or 14	Rural Sociology }	
Soc. 49	Social Pathology	3
Psy. 1-2	General Psychology	6
	Physical Education	2
	Electives†	5
	Total	47

COLLEGE OF EDUCATION

Junior Year

Ed. 51A-B-C	Introduction to Secondary School Teaching	9
Ed.Psy. 60	Introduction to Measurement and Statistics	2
Ed.Psy. 158	Psychology of Adolescence }	3
or	Later Childhood and Adolescence }	
C.W. 82	Education of the Slow Learning Child	2
Ed.Psy. 184	Public and Personal Health	3
P.H. 50	Health of the School Child	3
P.H. 59	Electives†	23
	Total	45

Senior Year

Ed.T. 69A-B-C*	Special Methods and Directed Teaching in History and Social Studies	9
Ed.Psy. 159	Personality Adjustments in Education	3
Ed.Psy. 120	Basic Principles of Measurement	3
C.W. 140	Behavior Problems in Younger Children	2
C.W. 141	Behavior Problems in Older Children	2
Soc. 53	Elements of Criminology	3
Soc. 60	Social Protection of the Child	3
Soc. 90	Survey of Social Work	5
Soc. 91	Case Method Applied to the Study of Human Problems	3
Econ. 161	Labor Problems and Trade Unionism	3
	Electives†	9
	Total	45

* Taking the psychological examinations and a C + average in the major are prerequisite to this course.

† Electives should be chosen in consultation with the adviser and should include at least 6 more credits in sociology. Soc. 53, 60, 90, and 91 may be taken during the junior year.

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 graduate course numbers indicates courses 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. Objectives, organization, curricula, and methods of secondary schools and instruction with special reference to the fundamental facts of psychology involved therein. A combination and integration of topics commonly treated in courses in educational psychology, principles of education, and general secondary school methods. Unit A, psychological fundamentals; Unit B, methods of instruction; Unit C, organization, objectives, materials.

Ed.61A-B-C.†† Introduction to Elementary School Teaching. Objectives, organization, curricula, and methods of elementary schools and instruction with special reference to the fundamental facts of psychology involved therein. A combination and integration of topics commonly treated in courses in educational psychology, principles of education, and general elementary school methods. Unit A, psychological fundamentals; Unit B, methods of instruction; Unit C, organization, objectives, materials.

Ed.W. Professional Preparation for Teaching. This classification is designed for students already holding a Bachelor's degree who desire to complete their preparation for teaching and qualify for a state teacher's certificate. Such students should consult the adviser as to their eligibility and outline a program covering at least three quarters of study and totaling not less than 45 credits. Courses must be selected so as to meet all requirements for major, minor, and professional training. The entire program must be approved by the adviser and the entire 45 credits must be completed successfully before credit is allowed for any of the courses taken.

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.

Ed.150. Education for Postwar Reconstruction. A survey and critical interpretation of the role of the schools in achieving a democratic society in America and the world; a consideration of problems and opportunities confronting education in the postwar period.

AGRICULTURAL EDUCATION

Ag.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.

† The entire course must be successfully completed before credit is received for any quarter.

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

- 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.
- Agr.Ed.56. Rural Youth Leadership. A lecture, demonstration, and laboratory course in co-operation with leaders and specialists in the various fields and 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.83.‡ Advanced Methods in Teaching Agriculture. (Continuation of Agr.Ed. 82.)
- Agr.Ed.90.‡ Observation and Participation. Observation of agriculture departments in operation, including facilities, classes, and supervised practice. Individual reports and class discussions of observations.
- 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. Part-time School Instruction. Instructional programs for rural young men not regularly enrolled in school. Analysis of rural youth situations and placement problems.
- Agr.Ed.102. Evening School Instruction. Instructional programs for adult farmer groups. Organization of courses, teaching procedures, follow-up work, community programs of adult education.
- 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.191. Seminar in Agricultural Education.
- 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.

‡ A fee of \$1 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.

ART EDUCATION

GROUP A—DESIGN

ArtEd.1-2-3. Fundamental Experiences in Design. A discriminating awareness of organic design in the contemporary environment is developed through analysis of the structural basis of pictorial, decorative, and industrial design simultaneously with individual creative and practical problems. Section 1 is primarily for Art Education majors and minors with secondary level teaching as their destination; Section 2 leads toward commercial art; Section 3 toward activities for rehabilitation and recreation.

ArtEd.14-15-16. See Group D.

ArtEd.14A-15A-16A. Introduction to Art Laboratory. Experiences in problem solving in art, built out of the needs of contemporary society, as developed in Art Education 14-15-16.

ArtEd.17-18-19. Art for Elementary Teachers. An introductory survey stressing personal growth and preparation for effective co-operation in modern educational programs. 17: The artist's expressive contributions to life, his materials, techniques, and basic modes of expression helpful in understanding the significance of art in the life of the child. 18: Design experiences basic to understanding and appreciating historic and contemporary art; experiments with line, shape, color, texture, symbols, lettering, posters, etc. 19: Social and educational significance of modern design in contemporary life; personal appearance, architecture, city planning, industrial design, advertising design, theater, hobbies, etc. It is desirable but not necessary to take the sequence in this order.

ArtEd.20-21-22. Fundamental Experiences in Design. Special emphasis upon color and its use in handcrafts. Discussion of color in which experience in a variety of materials is possible. (May be taken with ArtEd. 31, 32. See Group B.)

ArtEd.54-55-56. Fundamental Experiences in Art. Primarily for nonmajors. Manipulative experience related to fundamental design problems at the level of maturity demanded in meeting school and community needs.

ArtEd.150-151. Understanding Contemporary Design. An advanced course in organic design based on the execution of practical problems leading to a wider understanding of art in commerce and industry.

See also Art Ed. 153-154-155E and 156 in Group D.

GROUP B—HANDCRAFTS

ArtEd.31-32. Orientation in Handcraft Processes. A course offered primarily to demonstrate to prospective social workers, elementary school teachers, recreational leaders, and other non-art majors the recreational and therapeutic possibilities in handcrafts. It includes lectures and demonstrations, also laboratory and workshop opportunities to explore the possibilities and limitations of such materials as clay, paper, leather, wood, metal, plastics, yarns, and fabrics. (May be taken with ArtEd. 20-21-22. See Group A.)

ArtEd.73,74,75. Ceramic Materials and Processes. Gives opportunities for thoro study of ceramics.

73. Hand-building processes, simple glazing, and incised line decoration.

74. Hand building continued, working on the wheel; engobes and underglazing.

75. Continuing hand building and work on the wheel; elementary casting and pouring; engobes, underglazes, and glazes continued; overglazes and inlays.

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

ArtEd.76-77-78.‡ Textile Materials and Processes. Gives opportunities for thoro study of textiles, including manipulative experience with textile processes of weaving and printing. Emphasis may be placed (1) upon seeing the relation to modern textile-production processes in industry or (2) upon skills to be applied in recreative or educational activities in the home, school, and community.

ArtEd.81A-B. Techniques of Puppetry. A. A survey of the field of puppetry. Discussion of the value of the craft to the fields of education, recreation, library, and social group work. Production involving the design and construction of hand, rod, and shadow puppets. B. Production involving the design and construction of hand puppets, colored shadows, and marionettes.

GROUP C—DRAWING AND PAINTING

Courses emphasizing the development of creative ability and technical skills in the fields of drawing and painting. Instruction consists chiefly of studio work. These courses are useful also for developing appreciation, interests, and hobbies.

ArtEd.4,6,8. Action Drawing. Study of figure proportion and figure construction, both with and without a model; problems in still life and landscape. Analysis and comparison with work of historical masterpieces; emphasis on organization, form, and movement. Mediums—charcoal, pencil, crayon, pen, etc.

ArtEd.24,26,28. Drawing and Painting from Still Life, Pose, and Landscape. Continuation of 4, 6, 8 with handling of more difficult mediums, water color, gouache. Methods of drawing for graphic processes.

ArtEd.61,62,63. Drawing and Painting—Advanced. Experience in the art of painting from the human head and figure and from objects in various mediums—charcoal, gouache, oil, dependent on degree of proficiency of the individual student.

ArtEd.66,67,68. Advanced Painting. A continuation of 61, 62, 63.

ArtEd.124E,125E,126E. Advanced Drawing and Painting. Study of the plastic means at the disposal of the painter. Compositional organization stressed. Experiment with various mediums. Creative projects completed.

GROUP D—APPRECIATION

ArtEd.14-15-16. Introduction to Art Education. Lectures, discussions, tours, and readings aimed to develop an interpretation of art as an important aspect of all activities which the individual experiences in providing for his personal and social needs.

ArtEd.54-55-56. Fundamental Experiences in Art (for nonmajors). A course similar to 14-15-16 adapted to special needs of registrants.

ArtEd.57-58. Art and Leisure. Participation in the cultural advantages of Twin City galleries and auditoriums, particularly our University Gallery. Tours and tutorial conferences arranged.

For History of Art see offerings under Fine Arts and Home Economics.

ArtEd.153,154,155E. Art in Society. An advanced course in the interpretation and enjoyment of art, designed to develop student awareness of the relations between the artist and his product and the society which conditions both.

153. The Modern Scandinavian Home As an Expression of the Culture of the North.

154. Personality and Its Expression in Costume. Experiments in reorientation of personality and various means for esthetic expression of achieved integration.

155E. The Plastic Arts (Painting, Sculpture, Architecture). Realistic appraisal of art work and modern art literature, in the light of the functions of the arts and the artist in contemporary society.

Contact with excellence, study of achievement in the arts, is an integral part of all courses. Tours to stores and galleries are arranged.

GROUP E—PROFESSIONAL COURSES

- ArtEd.84.‡ The Teaching of Art in the Elementary Grades. The place of art in the curriculum of the elementary school with methods for securing maximum educational returns from art activities. Demonstration lessons at the Tuttle School provide a realistic basis for discussion of important problems in the teaching of art.
- ArtEd.86‡-87‡-88.‡ Special Methods and Directed Teaching in Art. Actual experience under public school conditions. Techniques required in fulfilling these conditions. Informal discussions and conferences to generalize specific experience.
- 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 towards understanding the fundamental problems arising out of current ethnic and racial conflicts will be considered in the light of specific needs of teacher, community worker, layman.
- ArtEd.183. Philosophy of Art Education. The developing by each individual of an art philosophy integrated in a wider philosophy of life. A course in which teaching experience and professional education courses are synthesized in the light of the dynamic characteristics of life and art today.
- ArtEd.185.‡ Types of Art Instruction. This course is designed for teachers of art and for advanced students who are planning to teach art in secondary schools or in colleges. It emphasizes the philosophy, research, and procedures of the new secondary art education in connection with the current practices of the general education movement.
- ArtEd.189. Application of Esthetic Theory to Public Education. A scrutiny of the varying claims made for art in its wider functional aspect; the validity of the claims tested in everyday living; findings applied to education.
- ArtEd.284E. Recent Literature and Research in Art Education and Related Fields. Provides for guided reading in areas of the student's need and choice with training in valid research techniques.
- ArtEd.295. Special Problems in Art Education. Nine to fifteen hours credit. 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 in a chosen field. Registration by special permission of major adviser.

Internship—Practical experience in using art in public education will give fifth year registrants an opportunity for accumulating material for research under scientific direction. Arranged to fit individual needs.

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.

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

- C.W.90. Home, School, and Family Relations. Adjustment within and outside the family; relation of adults and children; family problems such as finance, discipline, recreation, marital adjustments, etc.
- C.W.130. Motor, Linguistic, and Intellectual Development of the Child. Analysis and interpretation of the scientific literature. Lectures, readings, and reports.
- 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. Development of the Elementary School Child. Intellectual, emotional, and social growth from six years to adolescence, with emphasis on the school's provisions to facilitate development. (Identical with Ed.Psy. 148.)
- C.W.133-134-135. Measurement of Child Personality. Methods used in the study of personality throughout development. 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 at time of adolescence.
- C.W.150.‡ Problems of Childhood Education. Lectures and readings on the philosophy and current methods of early childhood education; discussion of the needs of children, and of means of integrating the school with the home and the community. (Identical with Ed.C.I. 130.)
- C.W.170. Parent Education. History and survey of programs, materials, and methods. Administration and organization. Lectures, discussions, and reports.
- C.W.182. 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.186.‡ Laboratory in Childhood Education and Child Development—Workshop. (Identical with Ed.C.I. 131.) Independent study, conferences, observations, group work under supervision with observation in public and private schools and agencies for children. Credit will be allowed toward kindergarten or elementary education major. (Offered in Summer Session.)
- C.W.190. Principles of Mental Measurement of Young 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.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.233-234-235. Research in Child Development.
- C.W.236-237-238.* Seminar in Human Development. Fall: prenatal and infant development; winter: early and middle childhood; spring: adolescence. Surveys and discussion of research findings.
- C.W.250-251-252.* Seminar in Nursery Education. Group discussions and reports. Theory and practice of nursery education. Implications of modern research. Term papers.
- C.W.260. Physical Growth and Development. The growth of the human body and its systems from early fetal life to maturity. (Offered in alternate years.)

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

- C.W.270-271-272.* Readings in Child Development. Independent readings 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.273. Technique of Parent Education. Methods of teaching adults. Organization and administration of study groups. Demonstration lessons and observations.
- C.W.274-275. Field Work in Parent Education. Lesson plans, observations, and field work.
- C.W.280. 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. (Offered in alternate years.)
- 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. (Offered in alternate years.)

CURRICULUM AND INSTRUCTION

NOTE—All courses listed under Curriculum and Instruction carry a fee of \$1 per credit.

GENERAL COURSES

- Ed.C.I.70. Methods and Materials in Safety Education.
- 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. Is intended as a definite means of working out solutions to individual visual aid problems.
- 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.)
- 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.129.‡ Principles and Problems of Teaching Social Hygiene. Emphasis will be placed on methods of teaching social hygiene in the public schools and materials for instructional use in the elementary and secondary schools.

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

- 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.‡ Diagnostic 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.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 are 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.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.

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.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.

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

§ Taking the psychological examinations and a C + average in the major are prerequisite to this course.

- Ed.C.I.130.‡ Problems of Childhood Education. (Identical with C.W. 150.) 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.131.‡ Laboratory in Childhood Education and Child Development—Workshop. (Identical with C.W. 186.) Independent study, conferences, observations, group work under supervision with observation in public and private schools and agencies for children. Credit will be allowed toward kindergarten or elementary education major. (Offered in Summer Session.)
- 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 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.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.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 bases 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.

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

- 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, gradation of 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.

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 analyses 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.135.‡ Teaching of Occupations and Group Guidance. Problems of group work in guidance in the secondary schools. Content and materials for home room groups, occupations classes, and other guidance courses in junior and senior high school.
- 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, the commission report, and recent development of integration.
- Ed.C.I.169.‡ Extra-curricular Activities. Types of activities in junior and senior high schools; aims and values; 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.188.‡ Advanced Course in Methods of Teaching Modern Languages. An advanced course of the seminar type in methods of teaching modern foreign languages. Designed primarily for experienced teachers and graduate students. Lectures, readings, discussion.
- Ed.C.I.191.‡ Advanced Course in the Teaching and Supervision of Secondary School Mathematics. Evaluation of the present practices in methods, content, and administration of junior and senior high school mathematics.
- Ed.C.I.198.‡ Recent Literature in Methods and Curriculum in 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 fee of \$1 per credit is charged for this course.

- 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.254.‡ Supervision of the Social Studies. The scientific work being done on the course of study in geography, history, science, and related fields; improvement of instruction in social studies.
- 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.
- 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 practice teachers in 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.
- 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.285.‡ The Professional Education of Teachers. A 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, of the teaching profession; the problems that relate to the program of studies, curricula, and courses.

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

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.125. Pupil Personnel Administration.
- Ed.Ad.127. Teacher and Employee Administration.
- 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.226. School Plant Planning and Management. Plant program planning and financing, including operation and maintenance of public school buildings.
- 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.

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. Guidance in Secondary Schools. Basic principles and current practices in educational and vocational guidance in junior and senior high schools. Application of principles through case discussions.
- 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.
- Ed.Ad.218. Recent Literature in Secondary Education.
- Ed.Ad.264. The Organization of the Secondary School.
- Ed.Ad.265. The Administration of the Instructional Activities of the Secondary School.
- Ed.Ad.266. The Administration of the Non-Instructional Activities of the Secondary School.
- 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.

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.
- 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. Guidance in Secondary Schools. Basic principles and current practices in educational and vocational guidance in junior and senior high schools. Application of principles through case discussions.
- 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 Adjustments in Education. 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 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.220-221. Advanced Theory of Measurement.
- Ed.Psy.225.* 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.233.* Problems in Guidance and Personnel Work. Investigations of particular problems in the student personnel field, weekly seminar discussions of specialized phases of college student personnel and noneducational personnel work.
- 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.
- Ed.Psy.253.* Research Problems.
- 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.
- 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. A survey of research and a statement of principles in human learning, and their implications for curriculum and instruction.

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.

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

HIGHER EDUCATION

- Ed.Psy.252. Student Personnel Work in College and University. An advanced course for students who have had at least one earlier course in higher education, and who wish to become familiar, as college personnel workers or college teachers, with student personnel functions. The philosophy underlying student personnel work, specific personnel services with particular regard to the work of the counselor and the faculty adviser, and student personnel administration.
- 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.

HISTORY OF 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.73. Educational Sociology. A study of the effects of recent social trends upon American educational institutions and of the chief problems in educating individuals for their associations and in directing educative forces of society.
- H.Ed.74. Social Viewpoints in Education. A critical examination of the motivations and attitudes of educators in the light of social, economic, and political forces, with a view toward formulating an effective viewpoint for teachers today.
- H.Ed.76. Introduction to the Philosophy of Education. An introduction to the basic controversies in current educational theory from the standpoint of their philosophic principles. Major attention will be given to the progressive, traditional, and radical viewpoints together with their effects upon educational practice in American life.
- 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.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.176. Conflicting Issues in Modern Education. A critical survey of major philosophies of education in their social setting.
- 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. Concern will be given such issues as the role of education in social reconstruction, the function of teacher organizations in political life, and the meanings of academic freedom and indoctrination in relation to democracy.
- 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.181. Tutorial Work in Educational Sociology and Philosophy. Work on an individual basis for students who have developed special interest in problems raised by previous courses in educational philosophy and sociology.
- H.Ed.240. Philosophic Foundations of Modern Education. An advanced course for graduate students.
- H.Ed.241. Problems in the History and Philosophy of Education. For graduate students interested in research and original work in these areas.

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, Material, 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.

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

- 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, 40, 41, and must have completed Home Experience in Clothing, and other phases of home economics.
- 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.193. Home Economics Curriculum. Sec. 1. Deals primarily with the home economics curriculum at the secondary school level; evaluation of present practices; modifications needed to meet present needs and those of the postwar period. Sec. 2. Home economics in higher education; its relation to the total college program; the groups of students for whom instruction should be offered; factors determining curriculum content, prerequisites, and course sequence; criteria for evaluating the effectiveness of a program.
- 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.
- 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. 1-9 cred. 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 and postwar problems at the various educational levels.

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

INDUSTRIAL EDUCATION

Shop and drawing courses—Courses of a manipulative or laboratory nature are offered at the University in great number and variety. (See bulletins and schedules on Architecture and Fine Arts, Drawing and Descriptive Geometry, Mechanical Engineering, and Agricultural Engineering.) Students may arrange to take shop, drawing, and related courses, day or evening, at the William Hood Dunwoody Industrial Institute without fees other than those paid to the University, except \$1 which is subject to refund. Courses not specifically named in the curriculum should be selected under advice and may be either extensive or intensive in resultant preparation for teaching. A maximum of forty-five credits is strictly enforced, which fact should be noted, particularly by those who transfer to this University or to this special curriculum with advanced standing. Credits in excess of forty-five will be recorded but they will not be counted toward the graduation requirement.

Ind.11.‡ Special Class Woodwork. For teachers of art, subnormal and primary work; lectures, demonstrations, and shop practice; not open to those with college credit in woodworking. Not a part of the special four-year curriculum.

Ind.30. Graphic Presentation. Typical methods of the graphic portrayal of data; use of educational and social facts of drill in construction and interpretation; corrected charts become student property.

Ind.40. Analysis. Necessity for, and types of, occupational analysis; individual work upon selected fields, for course construction purposes.

Ind.42. Course Organization. Makes definite use of analyses; content of courses selected and arranged for common and special teaching situations; both general and vocational classes and groups 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.

Ind.50A-B-C.‡ Directed Teaching. Three quarters or six 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.‡ Methods in Shop 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.75.‡ Methods in Drawing. The selection and arrangement of course materials; methods of presentation, instructional devices, and problems of the drawing room. Not a course in drawing.

Ind.80. General Industrial Training. Administration of the industrial department for elementary and secondary schools in typical Minnesota towns and elsewhere; aims, offerings, schedules, etc.; consideration of the unifying opportunities within a department, school, or system.

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

- Ind.101. Tests in Industrial Subjects. Study and application of principles of achievement test construction to shop and drawing subjects; evaluation of results. A part of the undergraduate curriculum.
- 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. Special attention to planning for individual school situations of those enrolled.
- 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. Guidance in the School. 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 part of the undergraduate curriculum.
- 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.170. Day Industrial Schools. National, state, and local organization and types; buildings and equipment; promotion and advertising; co-operative relationships; teaching staff; pupil guidance, training, placement, and follow-up.
- Ind.171. Evening Industrial Schools. Development of the after training of adults; agencies and scope of the movement; national and state legislation; qualifications of instructors; problems and difficulties; records and certification; fees and charges; buildings, equipment, and instruction facilities.
- Ind.172. Part-time Education. A study of the new movement for 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; 9 credits required. Lectures and conferences on projects.
- Ind.250-251. Industrial Education Literature. 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. Limited to graduate students.

LIBRARY METHODS

Statement of fees—The fees for Library Methods are \$3.50 per credit or \$42 per quarter for residents of Minnesota and \$4.75 per credit or \$56 per quarter for non-residents.

- Lib.Meth.51. Bibliography. Trade and national bibliography of the United States, Great Britain, and Europe; book ordering methods.
- Lib.Meth.52. Cataloging. Elements of dictionary cataloging. Lecture, problems, and practice.
- Lib.Meth.53. Advanced Cataloging. Continuation of 52, with special attention to difficult books and administrative aspects of a catalog department.
- Lib.Meth.54. Classification. Classification by the Dewey Decimal System, author numbers, shelf and accession records.
- Lib.Meth.55. Advanced Classification. Continuation of 54. Library of Congress and other classifications; classed catalogs; special adaptations of classification.
- Lib.Meth.57. Secondary School Libraries. Administrative methods and problems of school libraries.
- Lib.Meth.58. Public Library Administration. Administration, equipment, finance, and extension work of public libraries.
- Lib.Meth.60. Library Binding. Economics of library binding. Materials, processes, records, book repair.
- Lib.Meth.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, usually in the second and third quarters. Required of all students as prerequisite to a degree in library training.
- Lib.Meth.62. Reference. Reference books and other material with emphasis on methods of search and adaptation of material to needs of users.
- Lib.Meth.63. Advanced Reference. Specialized reference material, public documents, and periodicals. Reference lists and reports on special problems.
- Lib.Meth.64. Selection of Books for Adolescents. Principles of selection and criticism of representative books. Study and preparation of book lists for adolescents in school and public libraries.
- Lib.Meth.67. Library Printing. Preparation of copy, editing, proofreading, layout of library publications. Criticism of typical printed material.
- Lib.Meth.68. Circulation Work. Lending systems and records. Library publicity. Library exhibitions, etc.
- Lib.Meth.69. Current Library Problems. Discussion of typical problems and conditions in American libraries.
- Lib.Meth.70. Current Library Problems. Further discussion of typical library problems, library buildings, library surveys, etc.
- Lib.Meth.71. Library Work with Children. Administration of children's rooms and book selection.
- Lib.Meth.72. Library Work with Children. Further discussion of administration of children's rooms and book selection.
- Lib.Meth.73. Selection of Books for Adults. Principles of selection and criticism of representative books. Criticism and preparation of book lists.
- Lib.Meth.74. Selection of Books for Adults. Further discussion of books and aids to book selection.
- Lib.Meth.75. Selection of Books for Adults.
- Lib.Meth.76. Library Service in Hospitals.
- Lib.Meth.77. Book Selection for Hospital Patients.
- Lib.Meth.78. Reading and the Mental Patient.

Lib.Meth.79. Medical Reference Work.

Lib.Meth.80. Hospital Library Practice.

Lib.Meth.126. Subject Bibliography. Senior or graduate standing and bibliographical or research training or experience are prerequisite to this course.

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 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.‡ Special Methods of Teaching in Schools of Nursing. A study of the problems of nursing education, surveying present conditions. Objectives of nursing education and the making of curricula. Principles underlying clinical and classroom teaching in schools of nursing. Planning and evaluating instruction.

Ed.T.51B.‡ Special Methods of Teaching and Directed Teaching in Schools of Nursing. Observation and study of principles of teaching applied in the nursing school situation. Supervised practice in teaching of nursing subjects.

RECREATION LEADERSHIP

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.‡ Directed Teaching of Subnormal 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.‡ Permanent Play Materials. A consideration of the kinds and types of permanent equipment and play materials (blocks, dolls, trains, wagons, etc.) and their use by children of different ages.

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

- Ed.T.57.‡ Plastic Materials. Constructive work, with a variety of plastic materials including paper, crayons, paints, clay, woodwork, sewing, sand, etc. Through observation the student gains knowledge of interests and abilities of children of different ages.
- Ed.T.59.‡ Story Telling for Young Children. The principles underlying the art of story telling, the selection of stories and poetry to be used with young children. The student has an opportunity both to tell and to write stories.
- Ed.T.75.‡ Methods and Observation in the Nursery School. Open only to home economics and nursing education students.
- Ed.T.76A.‡ Methods and Observation: Nursery School. Two hours of observation, with written reports, and a one-hour class discussion each week.
- Ed.T.76B.‡ Methods and Observation: Home-School Relations. Two hours of observation, with written reports, and a one-hour class discussion each week.
- Ed.T.76C.‡ Methods and Observation: Kindergarten. Two hours of observation, with written reports, and a one-hour class discussion each week.
- Ed.T.77A.‡ Directed Teaching in Nursery School. Five half-days each week spent in classroom participation under supervision.
- Ed.T.77B.‡ Directed Teaching in the Primary Grade. Five half-days each week spent in classroom participation under supervision in public or private schools.
- Ed.T.77C.‡ Directed Teaching in the Kindergarten. 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 period 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. In combination with the Special Methods Course, this course meets the student teaching requirement for a secondary school academic major. Practice teaching in academic subjects is normally combined with special methods courses in a one-year teachers' course. See page 14.
- Ed.T.61.‡ Teachers' Course in Norwegian.
- Ed.T.62.‡ Teachers' Course in Swedish.
- Ed.T.66A-B-C.‡ Special Methods and Directed Teaching in English. A one-year course. This course is required of all students with a major in English or Speech.
- Ed.T.66Am.‡ 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. Practice teaching and observation are combined with this course except in special cases.
- Ed.T.66Bm.‡ 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. Practice teaching and observation are combined with this course except in special cases.
- Ed.T.67A-B-C.‡ Special Methods and Directed Teaching in Mathematics. A one-year course required of all students with a major in mathematics.
- Ed.T.67Am-Bm.‡ Teaching of Secondary School Mathematics. Discussion of procedures in selecting and organizing materials and in teaching secondary school mathematics.
- Ed.T.68A-B-C.‡ Special Methods and Directed Teaching in Secondary School Science. A one-year course required of all students with a major in natural science.

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

- Ed.T.68Am-Bm.‡ Methods of Teaching Secondary School Science.
- Ed.T.69A-B-C.‡ Special Methods and Directed Teaching in the Social Studies. A one-year course required of all students with a major in history or the social studies.
- Ed.T.69Am-Bm.‡ Methods of Teaching the Social Studies.
- Ed.T.70A-B-C.‡ Special Methods and Directed Teaching in Modern Languages. A one-year course required of all students with a major in a modern language.
- Ed.T.71A-B-C.‡ Special Methods and Directed Teaching in Latin. A one-year course required of all students with a major in Latin.
- Ed.T.73A-B-C.‡ Special Methods and Directed Teaching in Commercial Subjects. A one-year course required of all students in the specialized curriculum in commercial education.
- Ed.T.74.‡ Teachers' Course in Journalism. A study of methods and techniques of presenting journalism instruction to students of less than college level. It is required of College of Education students with journalism minors.
- Ed.T.88A-B-C.‡ Special Methods and Directed Teaching in Speech. A year course involving special methods and directed teaching in speech and English.

MUSIC EDUCATION

NOTE—For description of courses in Music and statement of fees see Bulletin of Science, Literature, and Arts. For statement of fees, see the Combined Class Schedule, page 71.

- Mu.Ed.1. Music Orientation. To provide opportunity for the student to become acquainted with the various divisions of music study; a survey of the offerings in general music and music education.
- 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.‡ Primary Methods. Practical methods for teaching music in the nursery school, kindergarten, 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.‡ Intermediate Methods. 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.52.‡ Technique of Teaching Appreciation. A practical course in the teaching of appreciation of music to children in the elementary grades. Materials and methods of presentation will be discussed and demonstrated, using the class as a laboratory.
- 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, helps and materials for public appearances.
- Mu.Ed.54.‡ Public Performance. How to select materials, organize, rehearse, and present school activities in audience situations. This includes operettas, cantatas, concerts, pageants, etc. Costuming, make-up, lighting, rehearsals, business management, and scenery are included. All materials and discussions are from the educational point of view.

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

- Mu.Ed.55.‡ Survey and Evaluation of Vocal Materials and Methods. An analysis and comparison of various techniques of school music teaching. A survey of octavo vocal materials and textbooks in series.
- 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 and evaluation, the music education seniors will rehearse and direct small ensembles from the class, conducting problems will be presented and discussed from the student's as well as the teacher's point of view.
- Mu.Ed.60-61-62.‡ Supervision and Teaching. 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. Psychological basis of conducting and consideration of the acoustical properties of auditoriums. Efficient management of rehearsals.
- Mu.Ed.101. Tests and Measurements in Music Education. Techniques for elementary statistics. To acquaint students with existing tests in the field of music education; their reliability, validity, administration, and proper interpretation of the findings.
- Mu.Ed.150.‡ Advanced Course in the Teaching of Elementary School Music.
- Mu.Ed.220E. Survey and Application of Research in Music Education. To include recent books, monographs, and studies. Relative significance of their contributions in respective fields.
- 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.60. Ward Administration. Organization of the hospital; authority, responsibility and relationships of the head nurse, principles of administration; analysis and maintenance of a good nursing service; environment of the patient; selection, orientation, assignment, and motivation of personnel; planning clinical teaching programs.
- Nurs.Ed.62. Personnel Work in Schools of Nursing. A survey of principles and techniques of personnel work applied to school of nursing problems. The relationship of such

‡ A fee of \$1 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.

- topics as individual differences, human behavior, personality, emotions, and intelligence to the problem of personnel guidance. Study of such techniques as psychological tests, personnel records, orientation periods, remedial programs and counseling interviews in schools of nursing.
- 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. Comparative Nursing Procedures. A comparative study of nursing procedures including individual projects.
- Nurs.Ed.67. Field Practice in Ward Administration. Practice in the administration of a ward, in the supervision of the nursing service, and in the planning of the student's clinical experience in that division. Participation in the ward teaching program.
- Nurs.Ed.69. Survey of Conditions and Trends in Nursing Including War Nursing. A study of conditions existing in nursing as revealed in literature and reports.
- Nurs.Ed.71. Curriculum Making in Schools 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.72. Teaching and Supervision in Schools of Nursing. Principles of teaching applicable in schools of nursing. Planning of class work. Use of case studies, ward clinics and demonstrations, and assignment of practice, as methods of clinical teaching. Methods of evaluating students' work. Principles of supervision and their application for the improvement of nursing practice. For postgraduates.
- 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 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.75. Fundamentals of Administration in Schools of Nursing. Concept of school of nursing and of nursing service; functions of administration in school of nursing.

For other courses see bulletins of the School of Nursing and the School of Public Health.

PHYSICAL EDUCATION FOR MEN

For statement of fees see Combined Class Schedule.

- Phys.Ed.1,2,3. Sports Education. General course required of all men in the College of Education except physical education majors.
- Phys.Ed.4A. Basketball Fundamentals. Demonstrations and practice in such fundamentals as footwork, passing, dribbling, goal throwing, individual and team defensive tactics.
- Phys.Ed.4B. Football Fundamentals. Demonstrations and practice in football fundamentals for all positions of a football team.
- Phys.Ed.4C. Track Fundamentals. Demonstrations and practice in all track and field events.
- Phys.Ed.5A-B-C. Physical Education Activities. A (fall)—conditioning, mimetic and exhibition drills; corrective exercises; story plays; touchball and six-man football;

apparatus—stall bars, buck, and mats. B (winter)—marching tactics; fundamental dance steps—folk, square, and gymnastic dances; apparatus—low and high horizontal bars. C (spring)—individual and combination stunts with and without equipment; contests and class races; softball.

Phys.Ed.6A. Intramural Sports. Soccer and speedball fundamentals and team play.

Phys.Ed.6B. Intramural Sports. Ice hockey, handball, and squash.

Phys.Ed.6C. Intramural Sports. Advanced swimming, diving, and lifesaving.

Phys.Ed.7A-B-C. Recreational Games and Sports. A (fall)—team and non-team games with and without equipment, social games and mixers; progressive game parties, noon-hour activities, volleyball. B (winter)—relays with and without equipment, pyramid building, boxing, wrestling, apparatus—long horse, ropes, side horse, flying rings. C (spring)—badminton, aerial darts, deck tennis, horseshoes, archery, paddle tennis, tether ball, table tennis, bowling.

Phys.Ed.8. Dual Spring Sports. Tennis, golf.

Phys.Ed.9. Rhythms. Tap and social dancing.

Phys.Ed.25. First Aid. See Department of Physical Education for Women.

Phys.Ed.50. Human Anatomy.

Phys.Ed.51. Mechanics of Movement. Study of the structure of the body and the principles and mechanics of bodily movements.

Phys.Ed.53,54,55.‡ Methods and Materials in Physical Education. Application of principles of methodology to physical education, analysis and study of the techniques of measurement devices for grading and classifying pupils. Practice in leadership in physical education activities.

Phys.Ed.56. Nature and Function of Play. A study of the philosophy of play and a survey of types of play, their values, and classification of activities according to age and sex differences.

Phys.Ed.57. Operation and Conduct of Play Centers. Study of the facilities, programs, leadership, and administration of playgrounds and community centers.

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.66A-B. Officiating of Athletic Sports. A (fall)—qualifications of officials; officiating ethics; discussion of rules and officiating in touchball, football, basketball. B (winter)—wrestling, boxing, volleyball, gymnastics, swimming, track, softball, and baseball. One hour per week lecture and class discussion, three hours of practice in officiating under supervision.

Phys.Ed.67. Coaching of Athletic Sports (Football). Study of the theory, strategy, generalship, styles of offense and defense, methods of organizing practice and handling men.

Phys.Ed.68. Coaching of Athletic Sports (Basketball). Study of theory, styles of offense and defense; the conditioning and handling of players.

Phys.Ed.69. Coaching of Athletic Sports (Track). Instruction and actual practice in track and field events. Lectures on the conduct of meets, track strategy, and practice schedules.

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

- Phys.Ed.72. Coaching of Athletic Sports (Baseball). Theoretical consideration of, and actual practice in, batting, base running, and methods of playing each position. Special attention is given to "inside baseball" and the development of team play.
- Phys.Ed.73,74,75.† Directed Teaching. Six hours of directed teaching per week for three quarters.
- Phys.Ed.83. School Health Education, Method and Content. See Department of Physical Education for Women.
- Phys.Ed.101E.§ 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.103E.§ Physical Examination and Adaptation of Activities. The physical educator's responsibility in diagnosis, amelioration, and correction of physical abnormalities.
- Phys.Ed.111E.§ An Advanced Course in Methods of Teaching. See Department of Physical Education for Women.
- Phys.Ed.112E.§ Supervision of Physical Education. See Department of Physical Education for Women.
- Phys.Ed.113E.§ Physical Education in the Elementary Schools. See Department of Physical Education for Women.
- Phys.Ed.114E.§ The Administration of the Health Education Program. See Department of Physical Education for Women.
- Phys.Ed.133E.§ Special Administrative Problems in Physical Education in Secondary Schools. Survey of staff organizations in public schools of towns and cities, and state departments; problems of construction and maintenance of facilities and policies for their use; legal aspects of physical education; special emphasis on intramural and interscholastic athletic problems. Lectures, discussions, and written reports.
- Phys.Ed.134E.§ The Secondary School and College Curriculum in Physical Education. Theory and principles of program construction applied to physical education. Critical analysis of existing programs and evaluation of activities in the light of modern trends. Practical application of principles in the construction of a program for a specific situation.
- Phys.Ed.135E.§ 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.
- Phys.Ed.136E.§ Leadership in Community Recreation. A study of problems of leadership in community recreation; finance, co-ordination of existing agencies promoting recreation activities, facilities, and public relations.
- Phys.Ed.137E.§ Recent Literature and Research in Health Education, Physical Education, and Recreation. Methods of educational research applied to health education, physical education, and recreation. Critical analysis of existing studies. Analysis of methods of gathering and interpreting data.
- Phys.Ed.138E.§ 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.141E.§ Administration and Supervision of Public Recreation. Organization of public recreation; policies and procedures relating to recreation, finance, the activity program, facilities, office management, promotion, and public relations.

† A fee of \$1 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.

¶ Taking the psychological examinations and a C+ average in the major are prerequisite to this course.

Phys.Ed.142E. § Group Leadership and Community Organization for Recreation. Inquiry into the nature, scope, principles, and procedures in community organization, with attention to those principles and practices of group leadership that have particular reference to community organization work.

Phys.Ed.237E. Problems in Health Education, Physical Education, and Recreation.

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. For courses for which no fee is charged see Combined Class Schedule.

A fee of \$1 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. 50 or Phys.Ed. 51.

COURSES FOR UNDERGRADUATE STUDENTS

Phys.Ed.1,2,3,4,5,6,8. General Course in Physical Education. 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 activities:

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 Instructor's Review and Water Safety Instructor's Course

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

Rhythms

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

Team Sports

Basketball
Recreational Games
Softball

Team Sports Officiating

Volleyball
Basketball
Softball

Recreational Activities for Which No Registration Is Required

Inquire at 101 Norris Gymnasium for Women for hours.

Archery
Badminton
Basketball
Exercises for Body Building
Fencing
Modern Dance

Rifle Marksmanship
Riding
Swimming
Tennis
Volleyball

§ 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.21A-B-C.§ Elementary Physical Education.

Fall—Badminton, speedball, soccer, fieldball, fundamentals of rhythm, orientation.

Winter—Skating, modern dance, folk dancing for elementary and secondary schools, posture and daily life skills.

Spring—Tennis, soccer, speedball, fieldball, aquatics, modern 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.41A-B-C.§ Intermediate Physical Education.

Fall—Advanced tennis, volleyball, hockey, aquatics, modern dance, tumbling and stunts, Danish gymnastics.

Winter—Baseball, basketball, apparatus, Swedish gymnastics.

Spring—Track and field, softball, aquatics, ballroom and country dance.

Phys.Ed.50.‡‡ General Anatomy. Lecture and demonstration dissections of the muscles, bones, and joints; circulatory and nervous systems; the abdominal, pelvic, and thoracic viscera.

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.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.63.‡ 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.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.‡ Integration of Special Methods. 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. Modern dance composition, fundamentals of movement.

‡ A fee of \$1 per credit 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.

‡‡ A fee of \$2 is charged for Phys.Ed. 50 and 51 whether taken as a whole or as a part.

- 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-B.‡ 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.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.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.

‡ A fee of \$1 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.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.116. § 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.

SCHOOL OF PUBLIC HEALTH

COURSES FOR UNDERGRADUATE STUDENTS

P.H.2. First Aid. General care and observation of patients; emergencies and first aid treatment. Laboratory demonstrations and practice.

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 Adult Life. 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 preventable diseases; community programs for their control. (Not offered.)

P.H.52. ††† Health Care of the Family. (See Bulletin of the College of Agriculture, Forestry, and Home Economics.)

P.H.53. Elements of Preventive Medicine and Public Health. Susceptibility and resistance to disease; occurrence and prevention of communicable, degenerative, and industrial diseases; protection of food, water, and milk; school health work; vital statistics. (For nurses and students in medical social work.)

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. 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. (Nurses only.)

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.) 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.

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

† No 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, or for 59 and 69.

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

- P.H.59.¶ Health of the School Child. Mental and physical growth; health appraisal of the school child; the school environment and its effect on child health; correction of physical defects; prevention and control of diseases common to the school-age child; care of the handicapped; accident prevention and first aid; contribution of physical activities and recreation to child health; emotional problems; practical problems of health supervision and administration.
- 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.62-63.†† Principles of Public Health Nursing. The public health nurse's role in the various services of a public health program; discussion of individual, family, and community health problems; teaching in the home, principles of organization and administration of public health nursing services including planning of the program; some discussion of special services such as school and industrial 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.69.¶ School Nursing.
- P.H.70.‡ Special Methods and Supervised Teaching in Health Education for Public Health Nurses. Includes practice in planning instruction and in teaching adults. Enrolment limited.
- P.H.76. Nutrition in Public Health Nursing. (Same as H.E. 76.) Principles of nutrition applied to family teaching, consideration of diet for normal living, at special periods in life, and for certain diseases. Discussion of diet problems of low income groups.
- 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.
- P.H.125. Community Health Education. A course intended primarily for those preparing for leadership in community health education to include organization, administration,

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

¶ 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, or for 59 and 69.

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

‡‡ A fee of \$50 per month in charged for this course.

and evaluation of community health education programs, and the selection, preparation, and use of tools commonly employed in health education.

For other courses for graduate students see the Bulletin of the Graduate School.

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.

‡ A fee of \$1 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
1944-1945



Volume XLVII, Number 33

August 5, 1944

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UNIVERSITY CALENDAR, 1944-45

1944		<i>Fall Quarter</i>	
September	25-29		Freshman Week
September	28-29		Registration, College of Education. Fall quarter fees due
October	2	Monday	Fall quarter classes begin 8:30 a.m.
October	14	Saturday	Last day for registration and payment of fees for the Graduate School and for teachers in service*
November	11	Saturday	Armistice Day; holiday (except extension)
November	23	Thursday	Thanksgiving Day; holiday
December	15-16 and 18-21		Final examination period
December	21	Thursday	Commencement Convocation. Fall quarter ends at 6:00 p.m.
1945		<i>Winter Quarter</i>	
January	2	Tuesday	Registration, College of Education
January	3	Wednesday	Winter quarter classes begin 8:30 a.m.
January	13	Saturday	Last day for registration and payment of fees for the Graduate School and for teachers in service*
February	12	Monday	Lincoln's Birthday; holiday (except extension)
February	22	Thursday	Washington's Birthday; holiday (except extension)
March	16-17 and 19-22		Final examination period
March	22	Thursday	Commencement Convocation. Winter quarter ends 6:00 p.m.
		<i>Spring Quarter</i>	
March 31, April	2		Registration for new students in College of Education
April	3	Tuesday	Spring quarter classes begin 8:30 a.m.
April	14	Saturday	Last day for registration and payment of fees for the Graduate School and for teachers in service*
May	17	Thursday	Cap and Gown Day Convocation
May	30	Wednesday	Memorial Day; holiday (except extension)
June	8-9 and 11-15		Final examination period
June	10	Sunday	Baccalaureate service
June	15	Friday	Spring quarter ends 6:00 p.m.
June	16	Saturday	Seventy-third annual commencement
		<i>Summer Session</i>	
June	18-19		Registration, first term. Payment of fees closes at 4:00 p.m. June 19 for students in all colleges
June	20	Wednesday	First term Summer Session classes begin 8:30 a.m.
July	4	Wednesday	Independence Day; holiday
July	26	Thursday	Commencement Convocation
July	28	Saturday	First term closes
July	30	Monday	Registration, second term. Payment of fees closes at 4:00 p.m. July 30 for students in all colleges. Second term classes begin 8:30 a.m.
September	1	Saturday	Second term closes

* Teachers in service will be allowed to register in the College of Education during the second week of classes without penalty.

DIRECTORY OF ADMINISTRATIVE OFFICERS

(University of Minnesota Telephone—Main 8177)

	Room
W. E. Peik, Dean of the College of Education	204Bu
Marcia Edwards, Assistant Dean of the College of Education.....	202Bu
Jean H. Alexander, Chairman, Students' Work Committee.....	206Bu
G. Lester Anderson, Director of Student Teaching	104UHS
Anton Thompson, Acting Director of Bureau of Recommendations.....	208Bu

See list of major advisers on page 14.

GENERAL INFORMATION

The following program of late afternoon and Saturday classes is arranged by the College of Education for teachers in service. Many of the offerings are subjects required in the regular curricula for high school or elementary teachers, or in the specialized curricula. Students expecting to qualify for a degree should secure a copy of the College of Education Bulletin, Announcement of Courses which contains a statement of general requirements for graduation, required courses in major and minors, descriptions of course content, and the specialized curricula. Students should consult a major adviser as early in their programs 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 210 Burton Hall.

The fee for part-time registration in the College of Education is \$2.25 per credit for residents of the state and \$4.75 per credit for nonresidents. Other fees include special course fees and a \$5 deposit. If five or more credits are taken, an incidental fee of \$9.65 is also required. Auditors pay the same fees as students registered for credit.

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. These examinations include the general English examination. 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.

SCHOLASTIC STANDARDS

Comprehensive examinations in the subject-matter fields of preparation have been discontinued because studies indicate that the selection of students by the honor point ratio served the purpose equally well. 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 Mr. J. M. Nolte, director, 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 Combined Class Schedule for 1944-45, 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

Students or alumni who have completed one quarter of work 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

GENERAL COURSES

No.	Title	Hour	Day	Bldg.	Instructor
Ed.150f	Education for Postwar Reconstruction. A survey and critical interpretation of the role of the schools in achieving a democratic society in America and in the world; a consideration of problems and opportunities confronting education in the postwar period (2 cred.; sr., gard.; no prereq.)	IX-X(f)	M	301Psy	Mr. Brameld

AGRICULTURAL EDUCATION

Major advisers—Professor Field; Assistant Professor Ekstrom.

Persons interested in courses to be arranged by the Department of Agricultural Education should write directly to Dr. A. M. Field, head of the Department of Agricultural Education, 205 Horticulture, Agricultural Campus, St. Paul 8, Minn.

ART EDUCATION

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

GROUP A—DESIGN

ArtEd.150f-151w	Understanding Contemporary Design (6 cred.; jr., sr., grad., by permission) 4:30 to 6:20 and ar.	T	207J	Miss Lien
ArtEd.156s	Intercultural Education through Art (See Group E)			

GROUP B—HANDCRAFTS

ArtEd.31f,w,32w,s	Orientation in Handcraft Processes such as, paper craft, clay modeling, leather work, wood work, metal craft, bookbinding, braiding, knotting, knitting, needle work, simple weaving, block printing and other textile design. (May be taken with ArtEd. 20-21-22. See Group A.) (3 cred. each qtr., 6 cred. with ArtEd.20-21-22; no prereq.)	II	S	11J
	Lect. and dem.	I-IV	S	11J
	Lab.			

GROUP C—REPRESENTATION—STUDIO PRACTICE

ArtEd.124f,w,s, 125f,w,s,126f,w,s	Drawing, Painting, Printmaking (2 cred. each; choose section) Sec. 7 Portrait, oil painting, water color	I-IV	S	207aJ	Miss Lutz
	8 Composition, illustration, oil paint	I-IV	S	207aJ	Miss Lutz

GROUP E—PROFESSIONAL COURSES

No.	Title	Hour	Day	Bldg.	Instructor
ArtEd.156s	Intercultural Education through Art (3 cred.; sr., grad.)	IX-X	T	207aJ	Miss Lien
ArtEd.183s	Philosophy of Art Education (3 cred. ar.; sr., grad.)	IX	MWF	203aJ	Miss Raymond
ArtEd.185w‡	Types of Art Instruction (3 cred. ar.; sr., grad.) (Secondary School Methods)	4:30 to 6:00	Th	203aJ	Miss Lien
ArtEd.189f	Application of Esthetic Theory in Public Education (3 cred.; sr., grad.)	IX	MF and ar	203aJ	Miss Raymond
ArtEd.284f,w,s	Reading and Research in Art Education (Cred. ar.; sr., grad.)	Ar	Ar	Ar	Miss Lien
ArtEd.295f,w,s*	Special Problems in Art Education (including technical art projects and involving advanced studio practice)	Ar	Ar	Ar	Miss Raymond and appropriate staff members

CURRICULUM AND INSTRUCTION

Major advisers—Professors Boardman, Bossing, Brueckner, Cook, Eckert, Johnson, Piek, Dora V. Smith, and Wesley.

All courses under *Curriculum and Instruction* except seminar courses, carry a fee of \$1 per credit.

GENERAL COURSES

Ed.C.I.104s‡	Adult Education (2 cred.; jr., sr., grad.)	4:00-6:00	T	301Lib	Mr. Dickerman
Ed.C.I.105s‡	Visual Aids in Teaching (2 cred.; jr., sr., grad.)	III-IV	S	206WeH	Mr. Wendt
Ed.C.I.107f‡	Radio in Education (3 cred.; jr., sr., grad.; prereq. 9 cred. in ed.)	IX-X	W	302MurH	Mr. Tyler
Ed.C.I.114s‡	The School Health Education Program (3 cred.; sr., grad.; prereq. Ed.T. 83, P.H. 50 or equiv.)	III-IV 1 hr. ar	S	3NGW	Miss Starr
Ed.C.I.145s‡	Remedial Reading (3 cred.; prereq. Ed.C.I. 143 or 144 or 159)	I-II	S	100Pt	Mr. Brueckner
Ed.C.I.151w‡	Diagnosis and Remedial Instruction (3 cred.; sr., grad.; prereq. Ed.C.I. 150 or equiv.)	I-II and 1 hr. ar	S	210UHS	Mr. Brueckner
Ed.C.I.171f,w,s‡	Curriculum Laboratory Practice—A course in the analysis and construction of units, courses of study, and curricula; class projects and individual projects according to needs, interests, level, and specialization. A special section will be organized for the winter quarter devoted to community resources available within the Twin Cities for curriculum development. Class discussions, survey, field trips (2 to 6 cred.; sr., grad.; prereq. 170 or consent of instructor)	Ar(f,s)	Ar	Ar	Mr. Bossing, Mr. Cook
Ed.C.I.207f,w,s*‡	Problems in Radio Education (1 to 6 cred. ar.)	Ar	Ar	Ar	Mr. Tyler
Ed.C.I.215f,w,s*‡	Problems in the School Health Education Program (Cred. ar.; prereq. permission of instructor)	Ar	Ar	Ar	Miss Grout
Ed.C.I.216f,w,s‡	Field Work in the School Health Education Program (Cred. ar.; prereq. permission of instructor)	Ar	Ar	Ar	Miss Grout
Ed.C.I.217f,w,s‡	Seminar in the School Health Education Program (Cred. ar.; consult instructor)	Ar	Ar	Ar	Miss Grout

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

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

No.	Title	Hour	Day	Bldg.	Instructor
Ed.C.I.271f,w,s*†	Problems in Curriculum Construction (2 or 3 cred. a qtr. with a maximum of 6; prereq. completion or current enrolment in one of the following: Ed.C.I. 113 or 119 and 170 or consent of instructor)	Ar	Ar	Ar	Mr. Bossing, Mr. Cook
Ed.C.I.273f,w,s*†	Problems in Reading (2 to 6 cred.; prereq. previous training in reading such as Ed.C.I. 143 or 144 or equiv.)	Ar	Ar	Ar	Mr. Cook

ELEMENTARY EDUCATION

Ed.C.I.62Bw†	The Teaching of Arithmetic in Intermediate Grades (2 cred.; sr.; prereq. Ed. 61A-B)	IX-X	T	100Pt	Mr. Brueckner
Ed.C.I.63Tf†	Children's Literature (2 cred.; for teachers in service)	IX-X	M	206UHS	Miss Smith
Ed.C.I.119f,w†	Elementary School Curriculum (3 cred.; sr., grad.; prereq. Ed.C.I. 61C or equiv.)	III-IV and 1 hr. ar	S	105UHS	Mr. Cook
Ed.C.I.143w†	Teaching and Supervision of Reading in the Elementary School (3 cred.; jr., sr., grad.; prereq. 9 hrs. in ed. including Ed. 51A or 61A)	4:30-6:30	W	100Pt	Mr. Cook
Ed.C.I.146w†	Current Developments in Language Expression in the Elementary School (2 cred.; jr., sr., grad.; prereq. Ed. 61A-B-C or equiv. Not open to students who have had Ed.C.I. 64)	III-IV	S	206UHS	Miss Smith
Ed.C.I.149w†	The Teaching and Supervision of Arithmetic in the Elementary School (2 cred.; sr., grad.; prereq. Ed. 61A-B-C or equiv.)	IX-X	M	209UHS	Mr. Brueckner
Ed.C.I.150f†	Supervision and Improvement of Instruction (3 cred.; sr., grad.; prereq. Ed. 61C or equiv.)	I-II and 1 hr. ar	S	210UHS	Mr. Brueckner
Ed.C.I.157f,w,s†	Practice in Supervision (3 cred. a qtr.; sr., grad.; prereq. consent of instructor)	Ar	Ar	Ar	Mr. Brueckner
Ed.C.I.173As†	Organizing Units of Instruction in the Elementary School—A consideration of the principles and procedures involved in the organization of units (center of interest units, activity units, experience units, etc.) utilizing natural science and social studies content in the development of reading skills, oral and written composition skills, arithmetic skills, study skills, and desirable social behavior (3 cred.; sr., grad.; prereq. 119 or teaching experience)	III-IV	S	105UHS	Mr. Cook
Ed.C.I.226f,w,s	Seminar in Elementary School Problems	IX-X	Th	209Bu	Mr. Brueckner, Mr. Cook
Ed.C.I.261f,w,s*†	Special Problems in School Supervision (2 cred.; prereq. 10 hrs. in ed. including Ed. 51A or equiv.)	Ar	Ar	220Bu	Mr. Brueckner
Ed.C.I.263f*†	Research in Arithmetic Instruction (2 cred.; prereq. Ed.C.I. 148 or 149 or equiv.)	III-IV	S	209UHS	Mr. Brueckner
Ed.C.I.264s*†	Research in Educational Diagnosis (2 cred.; prereq. Ed.C.I. 151 or equiv.)	IX-X	M	209UHS	Mr. Brueckner

SECONDARY EDUCATION

Ed.C.I.113w†	High School Curriculum (4 cred.; sr., grad.; prereq. 10 hrs. in ed. including Ed. 51A-B-C)	I-II and 1 hr. ar	S	209UHS	Mr. Bossing
Ed.C.I.122s†	Literature for Adolescents (2 cred.; jr., sr., grad.; prereq. Ed. 51C or junior-senior teaching experience)	I-II	S	206UHS	Miss Smith

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

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

No.	Title	Hour	Day	Bldg.	Instructor
Ed.C.I.135w†	Teaching of Occupations and Group Guidance (2 cred.; sr., grad.; prereq. Ed.Psy. 133 or permission of instructor)	III-IV	S	106Pt	Miss Edwards, Miss Wright
Ed.C.I.168w†	Current Developments in the Social Studies (2 cred.; grad. only)	III-IV	S	207UHS	Mr. Wesley
Ed.C.I.170s†	Curriculum and Course of Study Construction—A study of the principles and methods for the selection and organization of units, courses of study, and curricula at the secondary school level (3 cred.; sr., grad.; prereq. 113 or 119 or consent of instructor)	I-II and 1 hr. ar	S	209UHS	Mr. Bossing
Ed.C.I.191s†	Advanced Course in the Teaching and Supervision of Secondary School Mathematics (2 cred.; prereq. Ed. 51C or permission of instructor)	I-II	S	105UHS	Mrs. Turner
Ed.C.I.199Ef,w,s†	Internship (Cred. ar.; grad.)	Ar	Ar	Ar	Mr. Anderson
Ed.C.I.201f,w,s*†	Problems in Teaching the Social Studies (3 cred. a qtr.; grad.; prereq. consent of instructor)	4:00	T	226Bu	Mr. Wesley
Ed.C.I.204f†	Social Studies Curriculum (2 cred.)	III-IV	S	207UHS	Mr. Wesley
Ed.C.I.222f,w,s	Seminar—Current Problems in Technique of High School Instruction (With or without credit; prereq. Ed. 51C and Ed.C.I. 113)	IX-X	W	209UHS	Mr. Bossing, Mr. Johnson, Miss Smith, Mr. Wesley
Ed.C.I.225f,w,s*†	Special Problems in Supervision of Instruction in Secondary Schools (Cred. ar.)	Ar	Ar	218Bu	Mr. Boardman
Ed.C.I.254s†	Supervision of the Social Studies (2 cred.; sr., grad.; prereq. Ed. 61A-B-C or equiv.)	III-IV	S	207UHS	Mr. Wesley
Ed.C.I.266s†	Supervision of High School Instruction (3 cred.)	IX-X 1 hr. ar	F	210UHS	Mr. Boardman
Ed.C.I.287f†	Advanced Course in the Teaching of Science (2 cred.; sr., grad.; prereq. Ed. 51C)	III-IV	S	106UHS	Mr. Johnson
Ed.C.I.293s*†	Foundations of Secondary School Methods (3 cred.)	IX-X and 1 hr. ar	T	106UHS	Mr. Johnson
Ed.C.I.294f*†	Advanced Course in Methods of Teaching English (2 cred.; prereq. Ed.T. 66A-B-C or equiv.)	IX-X	T	209UHS	Miss Smith
Ed.C.I.296f,w,s*†	Special Problems in Teaching English (Cred. ar; grad.) Fall—Mechanics of Expression Winter—Special Problems in Teaching English Spring—Unit Procedures in Literature	III-IV(f) Ar(w) IX-X(s)	S Ar M	206UHS 206Bu 206UHS	Miss Smith Miss Smith Miss Smith

HIGHER EDUCATION

Ed.C.I.184f†	Supervision of Student Teaching (2 cred.; sr., grad.)	Ar	Ar	Ar	Mr. Anderson
Ed.C.I.228f,w,s*†	Problems of Higher Education and Teacher Training (Cred. ar)	Ar	Ar	Ar	Mr. Peik, Miss Eckert
Ed.C.I.250f†	Higher Education in the United States—Curriculum and instruction (3 cred.; prereq. 15 hrs. in ed.)	I-II 1 hr. ar	S	206UHS	Miss Eckert

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

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

No.	Title	Hour	Day	Bldg.	Instructor
Ed.C.I.285f‡	Professional Education of Teachers (2 cred.; prereq. 15 hrs. in ed.)	III-IV	S	328Lib	Mr. Peik

EDUCATIONAL ADMINISTRATION

Major advisers—Professors Neale, Boardman, and Bossing.

GENERAL COURSES

Ed.Ad.124f	Public School Administration (3 cred.; sr., grad.; prereq. 10 hrs. in ed.)	IX	MWF	210Bu	Mr. Neale
Ed.Ad.125w	Pupil Personnel Administration (3 cred.; sr., grad.; prereq. 124)	IX-X	M	210Bu	Mr. Neale
	and 1 hr. ar				
Ed.Ad.127f	Teacher and Employee Administration (3 cred.; sr., grad.; prereq. 124)	III-IV	S	109UHS	Mr. Neale
	1 hr. ar				
Ed.Ad.210s*	Financial Aspects of Public School Business Administration (3 cred.; prereq. 124, 125)	I-II	S	109UHS	Mr. Neale
	1 hr. ar				
Ed.Ad.226s	School Plant Planning and Management (3 cred.; sr., grad.; prereq. 124, 125)	IX-X	M	210Bu	Mr. Neale
	1 hr. ar				
Ed.Ad.228f,w,s*	Special Problems in Educational Administration (1 or 3 cred.; prereq. 124, 125)	Ar	Ar	224Bu	Mr. Neale
Ed.Ad.230f*	Public Relations for Schools (3 cred.; grad.)	I-II	S	109UHS	Mr. Neale
	1 hr. ar				
Ed.Ad.235f,w,s	Seminar in Educational Administration	Ar	Ar	224Bu	Mr. Neale

ELEMENTARY EDUCATION

Ed.Ad.115w	Organization of the Elementary School (3 cred.; jr., sr., grad.; prereq. 10 hrs. in ed.)	III-IV	S	109UHS	Mr. Neale
	1 hr. ar				

SECONDARY EDUCATION

Ed.Ad.133f	Guidance in Secondary Schools (2 cred.; sr., grad.; prereq. 9 hrs. in ed.)	III-IV	S	106Pt	Miss Edwards, Miss Wright
Ed.Ad.167f	Junior High School (3 cred.; sr., grad.; prereq. 10 hrs. in ed. including Ed. 51)	I-II	S	105UHS	Mr. Bossing
	and 1 hr. ar				
Ed.Ad.218f,w,s	Recent Literature in Secondary Education (Cred. ar.)	IX-X	W	210UHS	Mr. Boardman, Mr. Bossing
Ed.Ad.264f	The Organization of the Secondary School (3 cred.)	III-IV	S	210UHS	Mr. Boardman
	1 hr. ar				
Ed.Ad.265w	The Administration of the Instructional Activities of the Secondary School (3 cred.)	III-IV	S	210UHS	Mr. Boardman
	1 hr. ar				
Ed.Ad.266s	The Administration of the Non-Instructional Activities of the Secondary School (3 cred.)	III-IV	S	210UHS	Mr. Boardman
	1 hr. ar				
Ed.Ad.270f,w,s*	Special Problems in Secondary Education (Cred. ar.; maximum 9 cred.)	Ar	Ar Ar		Mr. Boardman, Mr. Bossing

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

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

EDUCATIONAL PSYCHOLOGY

Major advisers—Professors Cook, Miller, Johnson, and McConnell; Associate Professors Edwards and Van Wagenen.

GENERAL COURSES

No.	Title	Hour	Day	Bldg.	Instructor
Ed.Psy.60f	Introduction to Measurement and Statistics (2 cred.; in psy.)	I-II	S	106Pt	Mr. Cook
Ed.Psy.120s	Basic Principles of Measurement (3 cred.; sr., grad.; prereq. Ed.Psy. 60 or equiv.)	4:00-6:00 1 hr. ar	T	105UHS	Mr. Cook
Ed.Psy.133f	Guidance in Secondary Schools (2 cred.; sr., grad.; prereq. 9 hrs. in ed.)	III-IV	S	106Pt	Miss Edwards, Miss Wright
Ed.Psy.159s	Personality Adjustments in Education (2 cred.; sr., grad.; prereq. 9 hrs. in ed. and psy. including one recent course in psy.)	4:00-5:30	T	100Pt	Ar
Ed.Psy.208w*	Methods in Educational Research (2 cred.)	III-IV	S	106UHS	Mr. Johnson
Ed.Psy.220w-221s	Advanced Theory of Measurement (2 cred. a qtr.; prereq. Ed.Psy 120 and 216 or equiv.)	IX-X	T	115Psy	Mr. Van Wagenen
Ed.Psy.225s*	Diagnosis and Counseling in a Student Personnel Program (3 cred.; prereq. Ed. 133 and Ed.Psy. 120 or equiv.)	IX-X	W	210Bu	Miss Edwards
Ed.Psy.233f,w,s	Problems in Guidance and Personnel Work (Cred. ar.; prereq. consent of instructor)	Ar	Ar	202Bu	Miss Edwards
Ed.Psy.240f,w,s*	Problems in Measurement (2 cred. a qtr.)	Ar	Ar	Ar	Mr. Johnson
Ed.Psy.243f,w,s	Problems in Statistics for Students in Education and Psychology (With or without credit. Cred. ar.)	Ar	Ar	Ar	Mr. Johnson
Ed.Psy.253f,w,s*	Research Problems (Ar; prereq. consult instructor) (See also Ed.Psy. 233 and Ed.Psy. 240)	Ar	Ar	Ar	Mr. Miller, Mr. Cook, Mr. Van Wagenen
Ed.Psy.281f,w,s	Practice in Personnel Work (2-3 cred. Maximum 9 cred.; prereq. Ed.Psy. 225, or to be taken concurrently, and consent of instructor)	Ar	Ar	Ar	Miss Edwards

ELEMENTARY EDUCATION

Ed.Psy.113f-114w-115s	Psychology of Elementary School Subjects (2 cred. per qtr.; jr., sr., grad.; prereq. 10 cred. in psy. and ed.)	IX-X	W	109Psy	Mr. Van Wagenen
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HIGHER EDUCATION

Ed.Psy.252w	Student Personnel Work in College and University (3 cred.; prereq. 250 or 251 or 253 or 254)	IX-X	W	Ar	Ar
Ed.Psy.254s	Measurement and Evaluation in Higher Education (3 cred.; 15 hrs. in ed.)	I-II 1 hr. ar	S	106UHS	Mr. Johnson

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

HISTORY AND PHILOSOPHY OF EDUCATION

Major advisers—Professor Wesley; Associate Professor Brameld; Assistant Professor Jean H. Alexander.

NOTE—See also Ed. 150, Education for Postwar Reconstruction, p. 5.

GENERAL COURSES

No.	Title	Hour	Day	Bldg.	Instructor
H.Ed.176w	Conflicting Issues in Modern Education (2 cred.; jr., sr., grad.; not open to students who have taken 76; prereq. 6 hrs. in psy.)	IX-X	M	301Psy	Mr. Brameld
H.Ed.179s	Critical Thinking for Teachers (3 cred.; jr., sr., grad.; prereq. 6 cred. in psy.)	IX-X and 1 hr. ar	M	301Psy	Mr. Brameld
H.Ed.240w	Philosophic Foundations of Modern Education (3 cred.; grad.; no prereq.)	III-IV	S	301Psy	Mr. Brameld
H.Ed.241f,w,s	Problems in the History and Philosophy of Education (2 cred. a qtr.; prereq. permission of instructor)	Ar	Ar	226Bu 216ABu	Mr. Wesley, Mr. Brameld

HOME ECONOMICS EDUCATION

Major advisers—Professors Wylle B. McNeal, Clara M. Brown, and Ella J. Rose.

H.E.Ed.193f,w,s	Home Economics Curriculum (2 or 3 cred.; sr., grad.; prereq. permission of instructor) Sec. 1 Secondary school level	IX-X(f,s)	W	114HE	Miss Clara Brown, Miss Rose
H.E.Ed.194Af,Bs	Adult Education in Home Economics (3 cred. a qtr.; jr., sr., grad.; prereq. H.E.Ed. 91, 93 or parallel)	II-III (f) and 2 hrs. ar	S	114HE	Miss Krost
H.E.Ed.197f,w,s†	Organization and Methods for Related Art Teaching (1 to 3 cred.; sr.; prereq. H.E.Ed. 91; H.E. 180 or parallel)	II	S	401HE	Miss H. Goldstein
H.E.Ed.199Ef,w,s†	Internship (Cred. ar.; grad.)	Ar	Ar	Ar	Miss Rose
H.E.Ed.243f,w,s	Trends in Home Economics (3 cred.; prereq. permission of instructor)	III-IV	S	114HE	Miss Rose
H.E.Ed.293f,w,s*	Problems in Home Economics Education (1 to 9 cred.; prereq. permission of instructor)	Ar	Ar	Ar	Miss Clara Brown, Miss Rose
H.E.Ed.295f,w,s*	Seminar in Home Economics Education (Cred. ar.)	IX	TTh	114HE	Miss McNeal, Miss Clara Brown, Miss Rose

INDUSTRIAL EDUCATION

Major adviser—Professor Homer J. Smith.

The Department of Industrial Education will issue a mimeographed list of courses by quarters during the year. The fall quarter list will go to all teachers of industrial education of the Twin Cities and nearby towns by September 8. Copies will also be

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

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

available in the office of the Department of Trade and Industrial Education, 200 Eddy Hall, University of Minnesota.

METHODS AND DIRECTED TEACHING

Major adviser—Assistant Professor Anderson.

ELEMENTARY EDUCATION

No.	Title	Hour	Day	Bldg.	Instructor
Ed.T.77Af,w,s†‡	Directed Teaching in the Nursery School (4 cred. sr.; prereq. Ed.T. 55, 56, 57, 59, and 76A)	IX and 15 hrs. ar	M	202Pt	Mrs. Fuller
Ed.T.77Bf,w,s†‡	Directed Teaching in the Primary Grades (4 cred.; sr.; prereq. Ed.T. 55, 56, 57, 59, and 76B)	IX and 15 hrs. ar	M	202Pt	Mrs. Fuller
Ed.T.77Cf,w,s†‡	Directed Teaching in the Kindergarten (4 cred.; sr.; prereq. Ed.T. 55, 56, 57, 59, and 76C)	IX and 15 hrs. ar	M	202Pt	Mrs. Fuller

SECONDARY EDUCATION

Ed.T.68Af-68Bw-68Cs†‡	Special Methods and Directed Teaching in Secondary School Science (9 cred.; sr.; prereq. consent of instructor)	IX and 6 hrs. ar	MW	213UHS	Mr. Johnson, Mr. Mork
Ed.T.68Amf-68Bmw†‡	Methods of Teaching Secondary School Science (4 cred.; sr.; prereq. consent of instructor)	IX	MW	213UHS	Mr. Johnson, Mr. Mork
Ed.T.70Af-70Bw-70Cs†‡	Special Methods and Directed Teaching in Modern Languages (9 cred.; sr.; prereq. consent of instructor)	IX and 6 hrs. ar	MW	106UHS	Miss Birkmaier
Ed.T.71Af-71Bw-71Cs†‡	Special Methods and Directed Teaching in Latin (9 cred.; jr., sr.; prereq. 73 and any two of Latin courses numbered between 50 and 100)	IX and 6 hrs. ar	MW	109UHS	Miss Marlowe

MUSIC EDUCATION

Major advisers—Professor Oberg; Assistant Professor Hazel B. Nohavec.

Mu.Ed.60f-61w-62s†‡	Supervision and Teaching (9 cred.; sr.; prereq. Ed. 51A,B,C and Mu.Ed. 50A,B, 53 and a C+ average in the major)	IX-X and 6 hrs. ar	W	4Mu	Mrs. Nohavec
Mu.Ed.150w†	Advanced Course in the Teaching of Elementary School Music (2 cred.; prereq. Mu.Ed. 50A,B or equiv. and consent of instructor)	IX-X	T	4Mu	Mrs. Nohavec
Mu.Ed.220Ef,w,s	Survey and Evaluation of Research in Music Education (3 cred.; prereq. Mu.Ed. 101E)	Ar	Ar	Ar	Mrs. Nohavec
Mu.Ed.224Ef,w,s	Seminar and Individual Research Problems in Music Education (2 to 6 cred.)	Ar	Ar	Ar	Mrs. Nohavec and others

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

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

§ Taking the psychological examinations and a C+ average (1.5 honor points per credit) in the major or the subject in which student teaching is done are prerequisite to registration in this course.

No.	Title	Hour	Day	Bldg.	Instructor
Mu.Ed.225Ef,w,st†	Advanced Applied Music (2 to 4 cred.; prereq. entrance exam.)	Ar	Ar	Ar	Ar

PHYSICAL EDUCATION FOR MEN

Major advisers—Professor Keller; Associate Professors Nordly and Piper.

COURSES IN MAJOR AND MINOR CURRICULA IN PHYSICAL EDUCATION FOR MEN

Phys.Ed.133Ef**	Special Administrative Problems in Physical Education in Secondary Schools (3 cred.; sr., grad.; prereq. 63 or equiv.)	I-II and 1 hr. ar	S	206CH	Mr. Nordly
Phys.Ed.134Ew**	The Secondary School and College Curriculum in Physical Education (3 cred.; sr., grad.; prereq. 63, 101E or equiv.)	I-II and 1 hr. ar	S	206CH	Mr. Nordly
Phys.Ed.135Es**	Tests and Measurements in Physical Education (3 cred.; sr., grad.; prereq. 10 hrs. in phys. ed. and Ed.Psy. 60 or equiv.)	I-II and 1 hr. ar	S	206CH	Mr. Keller
Phys.Ed.136Ef**	Leadership in Recreation (3 cred.; sr., grad.; prereq. 56 or equiv. and 10 hrs. in ed. or permission of instructor)	IX-X	T	206CH	Mr. Piper
Phys.Ed.137Es**	Recent Literature and Research in Health Education, Physical Education, and Recreation (3 cred.; grad.; permission of instructor)	IX-X IX	T Th	206CH 206CH	Mr. Nordly
Phys.Ed.138Ef**	Administration of Physical Education in Colleges and Universities (2 cred.; sr., grad.; prereq. 63 or 133E or equiv.)	IX-X	M	206CH	Mr. Keller
Phys.Ed.141E**	Administration and Supervision of Public Recreation (3 cred.; jr., sr., grad.)	Ar	Ar	Ar	Mr. Nordly
Phys.Ed.142E**	Group Leadership in Community Recreation (3 cred.; sr., grad.)	Ar	Ar	Ar	Mr. Nordly
Phys.Ed.237E**	Problems in Health Education, Physical Education, and Recreation (2 to 6 cred.; grad.; prereq. 137E and Ed. 206; ar)	Ar	Ar	Ar	Mr. Nordly

PHYSICAL EDUCATION FOR WOMEN

Major adviser—Associate Professor Gertrude M. Baker.

COURSES IN MAJOR, MINOR, AND GRADUATE CURRICULA IN PHYSICAL EDUCATION FOR WOMEN

Open only to students in the College of Education except by permission of instructor.

Statement of fees—A physical education fee of \$1.75 per credit is charged for all starred courses, maximum fee per student \$3.50 per quarter. For methods and directed teaching courses a fee of \$1 per credit is charged as indicated in the footnotes.

Phys.Ed.41Af-Bw-
Cs*†††

Intermediate Physical Education (9 cred.; prereq. 21A-B-C)			
Sec. 1 (fall) Individual Sports			
	III-IV	S	151NGW Ar
8 (winter) Individual Sports			
	I	S	60NGW Ar
	II	S	153NGW Ar

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

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

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

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

No.	Title	Hour	Day	Bldg.	Instructor
Phys.Ed.111Ef§	An Advanced Course in Methods of Teaching Physical Education (3 cred.; sr., grad.; prereq. undergrad. methods courses, 60 and 82 or equiv.)	IX, X 1 hr. ar	W	3NGW	Miss Baker
Phys.Ed.112Es§	Supervision of Physical Education (3 cred.; sr., grad.; prereq. teaching experience)	IX, X 1 hr. ar	W	3NGW	Miss Baker
Phys.Ed.113Ew§	Physical Education in the Elementary Schools (3 cred.; sr., grad.; prereq. 60 and 82 or equiv., and experience teaching elementary grade children)	IX, X 1 hr. ar	W	3NGW	Miss Baker
Phys.Ed.114Es§	The School Health Education Program (3 cred.; sr., grad.; prereq. Ed.T. 83, P.H. 50 or equiv.)	III, IV 1 hr. ar	S	3NGW	Miss Starr
Phys.Ed.116Ew§	Problems in Physical Fitness (3 cred.; sr., grad.; prereq. 82, 83 or equiv.)	III, IV 1 hr. ar	S	3NGW	Ar

MAJOR ADVISERS*

1944-45

Subject	Name of Instructor	Room
General Curriculum Adviser.....	Jean H. Alexander, Chairman Students' Work Committee.....	206Bu
New Extension Courses.....	J. M. Nolte.....	402Adm

EDUCATIONAL FIELDS

Adult Education.....	Watson Dickerman.....	402Adm
Agricultural Education.....	G. F. Ekstrom.....	205Hort (UF)
	A. M. Field.....	205Hort (UF)
Art Education.....	Ruth Raymond.....	209J
	Marie Lien.....	209J
Curriculum and Instruction.....	W. E. Peik (Teacher Training).....	204Bu
	Ruth E. Eckert (Higher).....	301EdH
	C. W. Boardman (Secondary).....	218Bu
	N. L. Bossing (Secondary).....	222Bu
	L. J. Brueckner (Elementary).....	220Bu
Educational Administration.....	W. W. Cook (Elementary).....	305EdH
	C. W. Boardman (Secondary).....	218Bu
	N. L. Bossing (Secondary).....	222Bu
	M. G. Neale (General).....	224Bu
Educational Psychology.....	W. W. Cook.....	305EdH
	P. O. Johnson.....	216Bu
	T. R. McConnell.....	217Adm
	W. S. Miller.....	302Psy
	M. J. Van Wagenen.....	351Psy
	M. E. Edwards.....	202Bu
Health Education.....	Ruth Grout.....	121MH, 214Bu
	Helen Starr.....	108NGW
Elementary Education.....	Jean H. Alexander.....	206Bu
	L. J. Brueckner.....	220Bu
	W. W. Cook.....	305EdH

* For Graduate School advisers see Bulletin of the Graduate School.

§ An average of C+ (1.5 honor points per credit) in the major or the subject in which student teaching is done and taking the required psychological examinations are prerequisite to registration in this course.

Subject	Name of Instructor	Room
History and Philosophy of Education	Jean H. Alexander (History)	206Bu
	Theodore H. Brameld (Philosophy)	216aBu
	Edgar B. Wesley (Educational Sociology)	226Bu
Home Economics Education	Clara M. Brown	101HE(UF)
	Wylle B. McNeal	215HE(UF)
	Ella J. Rose	111HE(UF)
Industrial Education	Homer J. Smith	200EdH
Library Training	Errett W. McDiarmid	107Lib
Methods and Directed Teaching	G. Lester Anderson	104UHS
Music Education	Hazel B. Nohavec	214Mu
	Paul M. Oberg	106Mu
Nursery School and Kindergarten Education	John E. Anderson	101Pt
	Mary Mechem Fuller	1 CWI
Nursing Education	Katharine J. Densford	123MeS
Philosophy of Education	Theodore Brameld	216aBu
Physical Education for Men	Louis F. Keller	110CH
	Carl L. Nordly	217CH
	Ralph Piper	220CH
	Gertrude M. Baker	102NGW
Professional Education of Teachers	W. E. Peik	204Bu
Public Health Nursing	Ruth Freeman	121MH
Radio Education	T. F. Tyler	231NMA
Recreational Leadership	Jean H. Alexander	206Bu
	C. L. Nordly	217CH
	G. Lester Anderson	104UHS
Student Teaching	Paul Wendt	3WeH
Visual Education		

SUBJECT-MATTER FIELDS

Anthropology	W. D. Wallis	106WeH
Astronomy	W. J. Luyten	359Ph
Botany	F. K. Butters	302Bo
Chemistry	P. O. Johnson	216Bu
Economics	E. A. Heilman	313VH
English	Tremaine McDowell	319F
	Dora V. Smith	206Bu
Geography	R. H. Brown	101bBu
German	O. C. Burkhard	210F
History	A. C. Krey	226Bu
	Edgar B. Wesley	226Bu
Latin	J. L. Heller	112F
Mathematics	A. L. Underhill	126F
Natural Science	P. O. Johnson	216Bu
Physics	J. W. Buchta	148Ph
Political Science	E. M. Kirkpatrick	213Bu
Public Health	Ruth Boynton	121MH
	Ruth Freeman	121MH
	William T. Heron	253Psy
Romance Languages	F. B. Barton	200bF†
Scandinavian	Alrik Gustafson	122F
Social Studies	Edgar B. Wesley	226Bu
Sociology and Social Work	C. Kirkpatrick	111J
Speech	F. M. Rarig	309aF
Speech Pathology	B. Bryngelson	410F
Zoology	J. E. Wodsedalek	9Z

* For Graduate School advisers see Bulletin of the Graduate School.

† On leave.

COMPLETE SUMMARY OF CLASS SCHEDULES

FALL						
Saturday I-II	Saturday III-IV	Monday IX-X	Tuesday IX-X	Wednesday IX-X	Thursday IX-X	Friday IX-X
ArtEd.31 ArtEd.124,125,126 Ed.C.I.150 Ed.C.I.250 Ed.Ad.230 Ed.Ad.167 Ed.Psy.60 H.E.Ed.194A (II and III)† H.E.Ed.197† Phys.Ed.133E	ArtEd.31 ArtEd.124,125,126 Ed.C.I.119 Ed.C.I.204 Ed.C.I.263 Ed.C.I.285 Ed.C.I.287 Ed.C.I.296 Ed.Ad.127 Ed.Ad.133 Ed.Ad.264 Ed.Psy.133 H.E.Ed.243 Phys.Ed.41A	Ed.150 ArtEd.189* Ed.C.I.63T Ed.Ad.124* Ed.T.68A* Ed.T.68Am* Ed.T.70A* Ed.T.71A* Ed.T.77A-77B-77C* Phys.Ed.138E	ArtEd.150 Ed.C.I.201(4:00) Ed.C.I.294 H.E.Ed.295* Phys.Ed.136E	Ed.C.I.107 Ed.C.I.222 Ed.Ad.124* Ed.Ad.218 Ed.Psy.113 H.E.Ed.193 Ed.T.68A* Ed.T.68Am* Ed.T.70A* Ed.T.71A* Mu.Ed.60 Phys.Ed.111E	Ed.C.I.226 H.E.Ed.295*	ArtEd.189* Ed.Ad.124*
WINTER						
ArtEd.31 ArtEd.32 ArtEd.124,125,126 Ed.C.I.113 Ed.C.I.151 H.E.Ed.197† Phys.Ed.134E Phys.Ed.41B	ArtEd.31 ArtEd.32 ArtEd.124,125,126 Ed.C.I.119 Ed.C.I.135 Ed.C.I.146 Ed.C.I.168 Ed.Ad.115 Ed.Ad.265 Ed.Psy.208 H.Ed.240 H.E.Ed.243 Phys.Ed.116E	Ed.Ad.125 Ed.C.I.149 H.Ed.176 Ed.T.68B* Ed.T.68Bm* Ed.C.I.146 Ed.T.70B* Ed.T.71B* Ed.T.77A-77B-77C*	ArtEd.151 Ed.C.I.62B Ed.C.I.201(4:00) Ed.Psy.220 H.E.Ed.295* Mu.Ed.150	Ed.C.I.143 Ed.C.I.222 Ed.Ad.218 Ed.Psy.114 Ed.Psy.252 Ed.T.68B* Ed.T.68Bm* Ed.T.70B* Ed.T.71B* Mu.Ed.61 Phys.Ed.113E	ArtEd.185 (4:30-6:00) Ed.C.I.226 H.E.Ed.295*	
SPRING						
ArtEd.32 ArtEd.124,125,126 Ed.C.I.122 Ed.C.I.145 Ed.C.I.170 Ed.C.I.191 Ed.Ad.210 Ed.Psy.254 H.E.Ed.197† Phys.Ed.135E	ArtEd.32 ArtEd.124,125,126 Ed.C.I.105 Ed.C.I.114 Ed.C.I.173A Ed.C.I.254 Ed.Ad.266 H.E.Ed.243 Phys.Ed.114E	ArtEd.183* Ed.C.I.296 Ed.C.I.264 Ed.Ad.226 H.Ed.179 Ed.T.68C* Ed.T.70C* Ed.T.71C* Ed.T.77A-77B-77C*	ArtEd.156 Ed.C.I.104 (4:00-6:00) Ed.C.I.201(4:00) Ed.C.I.293 Ed.Psy.120 (4:00-6:00) Ed.Psy.159 (4:00-5:30) Ed.Psy.221 H.E.Ed.295* Phys.Ed.137E	ArtEd.183* Ed.C.I.222 Ed.Ad.218 Ed.Psy.115 Ed.Psy.225 H.E.Ed.193 Ed.T.68C* Ed.T.70C* Ed.T.71C* Mu.Ed.62 Phys.Ed.112E	Ed.C.I.226 H.E.Ed.295* Phys.Ed.137E*	ArtEd.183* Ed.C.I.266

* IX hour only.
† II hour only.

Bulletin of the
University of Minnesota

Teacher Training Courses
in Physical Education

Special Offerings for
Summer Session 1944

First Term: June 12 to July 22
Second Term: July 24 to August 26



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No. 6

March 2, 1944

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University of Minnesota

Teacher Training Courses in Physical Education Summer Sessions, 1944

Courses will be offered in the Departments of Physical Education for Men and for Women leading to certification for part-time teaching, bachelor of science and master of education degrees.

For further details regarding regulations and fees see Bulletin of the Summer Session.

DEPARTMENT OF PHYSICAL EDUCATION FOR MEN

First Term (June 12—July 22)

Staff—Louis F. Keller, Ph.D., Director of Department of Physical Education and Athletics; Ralph A. Piper, Ed.D., Supervisor of Physical Education; Carl L. Nordly, Ph.D., Associate Professor and Graduate Adviser; Sheldon Beise, B.S., Instructor.

- 5A-C. Physical Education Activities. Calisthenics, marching tactics, tumbling, and stunts. (2 cred.; no prereq.; MTWThF VI, VII.)
- 7C. Recreational Games and Sports. Badminton, archery, horseshoes, table tennis, deck tennis, bowling. (1 cred.; no prereq.; MTWThF VII.)
9. Rhythms. Mixers, square dances, ballroom dancing. (1 cred.; no prereq.; TTh VIII, IX.)
63. Organization and Administration of Physical Education. Policies of routine procedures in school programs including classification, testing, grading, selection of activities, administration of intramural and interscholastic athletic programs. (3 cred.; jr., sr.; MTWThF IV.)
73. Directed Teaching. Observation and practice in teaching physical education classes. (2 cred.; sr.; M V and 11 hrs. cr.)
- 101E.* Principles of Physical Education. Aims, scope, and biological aspects of physical education; the place of physical education in education. (3 cred.; jr., sr., grad.; MTWThF III.)
- 133E.* Special Administrative Problems in Physical Education in Secondary Schools. Problems of personnel, facilities, and equipment, legal aspects, departmental relationships, public relations. (3 cred.; sr., grad.; MTWThF V.)
- 134E.* The Curriculum in Physical Education in Secondary Schools. Evaluation of activities, critical analysis of existing programs, practical application of principles in program construction. (3 cred.; sr., grad.; MTWThF VI.)
- 237E.* Problems in Physical Education. Individual study for those interested in solving a problem or carrying on independent research. (2 to 6 cred.; grad.; hrs. cr.)

* Graduate courses are open to men and women.

Elective courses and other courses required in major and minor curricula are offered in many fields including Social Studies, Natural Science, Preventive Medicine, Education, English, and Mathematics. Write to the Director of Admissions and Records for a Summer Session Bulletin which lists all course offerings.

The Department of Physical Education for Men will send a statement of its major, minor, and graduate curricula upon request.

DEPARTMENT OF PHYSICAL EDUCATION FOR WOMEN

First Term (June 12 to July 22)

Staff—Gertrude M. Baker, M.A., Associate Professor and Acting Director; Helen M. Starr, M.A., Associate Professor; Catherine C. Snell, M.A., Assistant Professor; Eloise Jaeger, B.S., Instructor.

- 12. Social Recreation. (1 cred.; MTWTh VI.)
- 13. Tumbling, Stunts, and Pyramids for Junior and Senior High Schools. (1 cred.; MTWTh II.)
- 33. Intermediate and Advanced Swimming. (1 cred.; MTWThF VII.)
- 37. Individual and Dual Games. (1 cred.; MTWTh III.)
- 41. Team Sports. (1 cred.; MTWTh III.)
- 52. Principles and Curriculum of Physical Education. (2 cred.; MTWTh VI.)
- 64. Technique of Teaching Gymnastics. (1 cred.; MTWTh VII.)
- 73. Technique of Teaching Rhythm. (1 cred.; MTWTh IV.)
- 83. School Health Education Methods and Content. (3 cred.; MTWThF II.)
- 84. Wartime Problems of the Small Schools. (2 cred.; MTWTh V.)
- 90. Student Teaching. (1 cred.; hrs. ar.)
- 112E.* Supervision of Physical Education. (3 cred.; MTWThF III.)
- 118E.* Problems in Physical Fitness. (3 cred.; MTWThF IV.)

Second Term (July 24 to August 26)

- 37. Individual and Dual Games. (1 cred.; MTWTh VII.)
- 53. Organization and Administration of Physical Education. (2 cred.; MTWTh II.)
- 64. Technique of Gymnastic Teaching. (1 cred.; MTWTh VI.)
- 113E. Physical Education in the Elementary School. (3 cred.; MTWThF V.)
- 114E. Administration of the School Health Program. (3 cred.; MTWThF III.)

Write to the Department of Physical Education for Women for further information regarding major and minor curricula.

* Graduate courses are open to men and women.